CHAPTER 9

DIET AND NUTRITION

This chapter is concerned with the nutritional requirements for the healthy person, and for the sick, wounded, and convalescing patient. Research has confirmed that good health depends in part upon the availability of essential nutrients the body requires throughout life. The well-nourished individual is usually mentally alert, is at a maximum of physical capability, and has a high resistance to disease. The daily basic minimum nutritional requirements must be met and often supplemented during periods of illness to meet the changing needs of the body and its ability to use foods. Therefore, the diet is an important factor in the therapeutic plan for each patient.

The important role of nutrition in overall health is widely recognized. As a member of the Navy, you must be healthy to perform your professional duties. Part of maintaining a healthy lifestyle starts with eating a well-balanced diet and maintaining a good fitness regimen. Many people in the Navy and Marine Corps do not maintain a proper daily diet. As a Hospital Corpsman, you may be responsible for providing nutritional counseling and, perhaps, even motivation. You have an added responsibility to observe for additional nutritional needs and omissions and to advise your shipmates when necessary. If you stay healthy and energetic, the knowledge and experience you share and the example you set may help your shipmates adopt and maintain a healthier lifestyle.

Balancing energy intake and expenditure can be difficult, both when activity levels are high as well as when they are very low. Typically, body weight remains constant when energy intake equals expenditure (fig. 9–1). The energy balance equation can be "unbalanced" by changing energy intake, energy expenditure, or both. To gain or lose 1 pound requires that approximately 3,500 extra calories be consumed or burned.

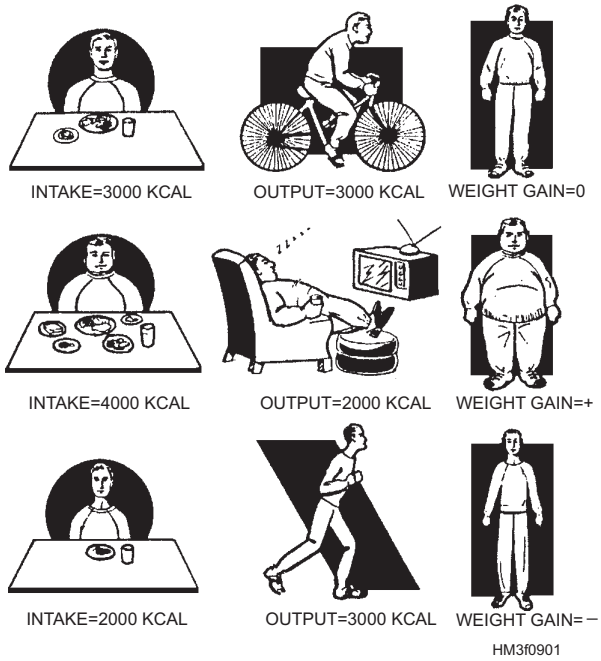

Figure 9–1.—Balancing energy intake.

FOOD CLASSIFICATION

LEARNING OBJECTIVE: *Identify the components of good nutrition.*

Foods are substances from animal and plant sources that yield heat and energy when ingested and absorbed by the body. Food nutrients build and renew tissues and regulate the body processes. The unit commonly used for describing energy intake and energy expenditure is the calorie. Good food sources contain substantial amounts of nutrients in relation to caloric content and provide upwards of 10 percent of the U.S. Recommended Dietary Allowance for each specific nutrient. Most people can get enough of each required nutrient daily by eating a wide variety of foods.

PROTEINS

Proteins are the "building blocks" of the body and provide important required nutritive elements. Proteins are needed for growth, maintenance, and replacement of body cells, and they form hormones and enzymes used to regulate body processes. Extra protein is either used to supply energy or is changed into body fat. Found in both the animal and plant kingdoms, all proteins are composed of amino acids. Some amino acids are absolutely essential to maintain life and are necessary for repair, growth, and body development. Of the approximately 20 amino acids,

our body can produce all but nine. These nine amino acids are termed "essential amino acids." We must get them from food, and we need all nine at one time so our body can use them effectively.

Proteins, which promote tissue growth and renewal, have long been recognized as the main structural unit of all living cells. Each gram (g) of protein yields 4 calories in the process of metabolism. Although proteins yield energy, they are an expensive source. If sufficient carbohydrates are not supplied, the body will use protein for energy requirements. This protein may be obtained from muscle tissue, producing the "wasting effect" of long-term starvation and some diseases.

A constant protein source is required in the daily diet. The normal daily protein intake for adults should be 0.8 gram per kilogram (g/kg) (2.2 lbs) of body weight, or 12 percent of the total caloric intake. Pregnant women require an additional 10 grams of protein a day over the normal daily intake.

Proteins play an important role in recovering from fractures, burns, and infections. They are also important in healing wounds and recovering from surgical procedures. In cases of recovery, protein intake should be increased in accordance with the severity of the condition, and carbohydrates and fats can be added liberally. While proteins can supply energy, they are not a main source of energy like carbohydrates and fat.

Ideally, the patient should receive protein by mouth; however, it is sometimes necessary to meet the minimum requirements parenterally. Glucose parenteral solution, given during an acute emergency period, will prevent some loss of protein. Protein deficiency may stunt growth, promote a secondary anemia, or induce nutritional edema. Dietary sources of protein and the nine essential amino acids are milk, yogurt, eggs, meats, fish, cheese, poultry, peanut butter, legumes, and nuts. Protein from plant sources is best when combined with animal protein, such as milk plus peanut butter, or when legumes are combined with grains, such as Navy beans plus rice.

FATS

The chief functions of fats are to supply energy and transport fat-soluble vitamins. Each gram of fat yields 9 calories. Fats provide the most concentrated source of calories (and, therefore, energy) of all the food nutrients. Fats are found in both the animal and vegetable kingdoms. Fatty acids and glycerol are the end products of the digestion of fats.

Many fats act as carriers for the fat-soluble vitamins A, D, E, and K. They also act both as a padding for vital organs, particularly the kidneys, and as subcutaneous tissue to help conserve body heat. Fat is stored as adipose (fatty) tissue to form a reserve supply in time of need. Dietary fats delay gastric emptying and promote a feeling of fullness. Excess calories from fats may produce obesity, the forerunner of arteriosclerosis, hypertension, gallbladder disease, and diabetes. A diet high in fat, especially saturated fat and cholesterol, contributes to elevated blood cholesterol levels in many people. Adults over the age of 30 should have a serum cholesterol level of less than 200 mg/dl. Health experts agree that less than 30 percent of our total calories per day should come from fat. Saturated fat intake should be no more than 10 percent of the total calories.

Reducing dietary fat is also a good way to limit calories. Decreased fat intake results in fewer calories without a reduction of most nutrients. Too little fat in the diet may lead to being underweight, having insufficient padding for the vital organs, and lowered energy. Butter, margarine, cream cheese, fatty meats, whole milk, olives, avocados, egg yolks, nuts, commercial bakery products, and vegetable oils are all sources of dietary fat.

CARBOHYDRATES

Carbohydrates (sugar and starches) are the most efficient sources of energy and are known as the "fuel of life." They are abundantly found in most plant food sources. Complex carbohydrates (starches) are in breads, cereals, pasta, rice, dry beans and peas, and other vegetables, such as potatoes and corn. Simple carbohydrates are found in sugars, honey, syrup, jam, and many desserts. The new nutritional guidelines established by the Food and Drug Administration (FDA) recommend that complex carbohydrates and naturally occurring sugars (found primarily in fruit) make up approximately 50 percent of one's total caloric intake. The FDA also recommends that refined and processed sugars make up no more than 10 percent of the calories in one's diet.

Each gram of carbohydrate yields 4 calories in the process of its metabolism. Carbohydrates must be reduced to glucose before the body can use them. Carbohydrates are stored in the muscles to fuel their movement, and in the liver as glycogen, which is then

broken down and released as glucose at the exact rate needed by the body. This latter mechanism is controlled largely by insulin from the pancreas. During fasting, liver glycogen is rapidly depleted, leading the body to use its fat for energy. Carbohydrates that are not needed for energy are converted to and stored as adipose (fat) tissue.

The main functions of carbohydrates are to

- furnish the main source of energy for muscular work and nutritive processes,
- help maintain body temperature,
- form reserve fuel,
- assist in oxidation of fats, and
- spare protein for growth and repair.

MINERALS

Although mineral elements constitute only a small portion of the total body weight, they enter into the activities of the body to a much greater degree than their weight would indicate. Certain mineral elements are essential for specific body functions. While it is not yet known exactly how many of the mineral elements are indispensable to the body functions, seemingly small changes of mineral concentration can be fatal. These essential inorganic elements contribute overwhelmingly to the skeletal framework of the body and teeth, and they are an essential part of many organic compounds.

Minerals form an integral part of basic cell structure and circulate in body fluids. They also exercise specific physiologic influences on the function of body tissues. For mineral needs to be met satisfactorily, consumption of each element must be sufficient to cover body tissue requirements and to meet changing physiological needs. At one time, it was erroneously believed that any diet adequate in other respects would also provide an adequate intake of essential minerals. This is not so. Foods vary greatly in their mineral—as well as their overall nutritional—content, depending on growing conditions, storage, and preparation procedures. Among the major minerals are calcium, phosphorus, iron, potassium, zinc, and magnesium. Table 9–1 lists the essential elements, the foods that contain them, and their functions.

VITAMINS

Vitamins are essential compounds that are present in food in minute quantities. Although vitamins do not furnish energy or act as tissue-building materials, they do act as catalysts in many body chemical reactions and are necessary for normal metabolic functions, growth, and the health of the human body. Their absence results in malnutrition and specific deficiency diseases. Vitamin chemistry is complex and nutritional experimentation is difficult, so our knowledge of them is being continually supplemented and revised. It is quite possible that additional vitamins will be discovered or that some of those already recognized may prove to contain more than one factor.

Vitamins are so widely distributed in food that a properly prepared normal diet usually provides an adequate amount. Vitamins can be destroyed during the preparation or preservation of certain foods; however, manufacturers frequently add vitamins to their products to replace those destroyed or removed in processing. Since fat-soluble vitamins can be stored in the body, it is possible to develop hypervitaminosis by consuming excessive amounts of these nutrients, and death may result in extreme cases. Fat-soluble vitamins include A, D, E, and K.

- **Vitamin A** is involved in the formation and maintenance of healthy skin, hair, and mucous membranes. Vitamin A helps us to see in dim light and is necessary for proper bone growth, tooth development, and reproduction. Good sources of vitamin A include yellow, orange, and dark green vegetables; fruits; and liver, eggs, cheese, butter, and milk.
- **Vitamin D** promotes calcium and phosphorus absorption and is required for the formation of healthy bones and teeth. Good sources include fortified milk, egg yolk, liver, tuna, and cod liver oil. Vitamin D is produced in the body on exposure to sunlight.
- **Vitamin E** protects vitamin A and essential fatty acids from oxidation in the body cells and prevents breakdown of body tissues. Good sources include vegetable oils, fortified cereals, whole-grain cereals and bread, nuts, wheat germ, and green leafy vegetables.
- **Vitamin K** includes a group of vitamins that promote normal clotting of the blood and helps maintain normal liver functions. Good sources

Table 9–1.—Mineral Elements in Nutrition

Element	Rich Sources	Function in the Body
Iodine	Seafood, water, and plant life in nongoiterous regions, and iodized salt	Assists in normal functioning of the thyroid gland.
Sodium	Table salt, seafood, animal products, and foods processed with sodium	Regulates osmotic pressure, pH balance, and heartbeat.
Potassium	Avocados, bananas, oranges, potatoes, tomatoes, nuts, meat, coffee, tea, milk, and molasses	Regulates osmotic pressure and pH balance. A constituent of all cells.
Magnesium	Nuts, whole-grain cereals, legumes, and vegetables	Assists in maintaining mineral balance.
Calcium	Milk, yogurt, cheese, some green vegetables, molasses, sardines, and salmon	Assists in blood coagulation; regulates heartbeat, aids in regulating mineral metabolism and muscle and nerve response. A constituent of bones and teeth.
Phosphorus	Milk, yogurt, poultry, fish, meats, cheese, nuts, cereals, and legumes	Aids in metabolizing organic foodstuffs and maintains pH balance. A constituent of bones and teeth.
Iron	Liver, egg yolks, oyster, legumes, whole or fortified grains, dark and green vegetables, and dried fruit	Helps carry oxygen throughout the body. A constituent of hemoglobin, blood, and tissue.
Chlorine	Table salt, seafoods, and animal products	Regulates osmotic pressure. A constituent of gastric acid.
Sulphur	Protein foods	Promotes hair and nail formation and growth. A constituent of all body tissue.
Copper	Liver, kidney, nuts, dried legumes, some shellfish, and raisins	Aids in the use of iron in hemoglobin synthesis.
Zinc	Meat, liver, eggs, seafood (especially oysters), milk, and whole-grain products	Regulates growth, taste acuity, and appetite. A constituent of enzymes.

are green leafy vegetables, liver, soybean, and other vegetable products.

Water-soluble vitamins, such as vitamin C and the B-complex vitamins, are not stored in the body to any great extent. Rather, they are used as necessary by the body, and any amounts that remain are excreted in the urine. As a result, these vitamins must be replenished daily to ensure optimum health.

- **Vitamin C** (ascorbic acid) is necessary for normal growth and cell activity and is important for maintaining blood vessel strength. It helps the body resist upper respiratory infections and is necessary for the proper development of teeth and gums. Wounds and burns require vitamin C for healing. A deficiency of ascorbic acid causes an individual to bruise easily. A severe deficiency leads to a condition known as scurvy. Good sources include citrus fruits, raw leafy vegetables, and tomatoes.

- **Vitamin B (Complex)** includes more than 12 separate B vitamins. Some of the more common B vitamins are

—**Thiamin (B_1)** is necessary for normal growth, normal carbohydrate metabolism and normal functioning of the heart, nerves, and muscles. Thiamin deficiency results in retarded growth and nerve disorders, and a condition known as beriberi. Good sources include pork, fish, eggs, and whole-grain cereals.

—**Riboflavin (B_2)** is required for normal growth, vigor, healthy skin and mucosa, and normal eye function. Riboflavin is found in milk products, green leafy vegetables, and eggs. Other good sources of vitamin B_2 are the organ meats, heart, kidney, and liver.

—**Niacin (B_3)** is necessary for normal growth and skin health, normal functioning of the stomach and intestines, nervous and circulatory systems, and for carbohydrate, fat, and protein metabolism. The best sources are meat, liver, poultry, and peanuts.

—**Pyridoxine (B_6)** is necessary for fat, carbohydrate, and protein metabolism, and is sometimes used to treat nausea in pregnancy. Sources include liver, yeast, wheat germ, pork, potatoes, and milk. Vitamin B_6 is usually prescribed with Isonizid (INH) treatment since INH often causes a pyridoxine deficiency.

—**Cyanocobalamin (B_{12})** is necessary for the health of nervous tissue and assists in iron metabolism and the maturation process of red blood cells. B_{12} is used to prevent pernicious anemia. The best sources are liver and kidneys, milk, eggs, fish, and cheese.

See Appendix IV for more information on vitamins.

VITAMIN AND MINERAL SUPPLEMENTS

Vitamin supplements are usually not necessary if a diet includes a wide variety of foods. Exceptions may occur in prenatal diets in which iron is low, as well as in patients who are deficient in a specific vitamin. Vitamin supplements should be taken only on a physician or dietitian's recommendation.

Vitamin and mineral supplements are being widely used by physically active people because of all the performance-enhancing claims made by supplement manufacturers. It is estimated that 40–50 percent of athletes use some form of vitamin/mineral supplements. Some doses range from amounts similar to the Recommended Dietary Allowances (RDA) up to levels many times the RDA. Supplements are useful under a variety of conditions, such as if an individual

- has an existing vitamin or mineral deficiency;
- has poor nutrient intake and/or dietary habits; or
- is exposed to extreme environmental conditions, such as altitude.

Often, laxatives are prescribed in conjunction with some medical treatments and may cause decreased absorption of vitamins, loss of minerals and elec- trolytes, or inhibition of glucose uptake. Therefore, any patient on laxatives should be carefully monitored, and supplementary nutritives should be administered as necessary.

Taking a general multivitamin supplement appears to be without measurable performance enhancing effects in healthy, well-nourished, physically active personnel. Similarly, no improvements in muscle strength or endurance have been noted in strength athletes, such as body builders, who tend to use megadoses of vitamin and mineral supplements. The indiscriminate use of high-potency vitamins and minerals is of growing concern since excessive amounts of vitamins and/or minerals can be harmful and may result in nutrient imbalances. Excessive intake of some vitamin and mineral supplements can result in adverse—and possibly toxic–side effects.

WATER

Water is often called the "forgotten nutrient." Water is needed to replace body fluids lost primarily in urine and sweat. A person can survive weeks without food but only days without water. Water makes up 70 percent of body weight and is found in every cell in the body. It is the medium through which nutrients are transported from the digestive tract to the cells where they are needed. Water is also the medium through which the by-products of cell metabolism are removed.

Water also serves as the medium in which the chemical processes of life take place. It is normally taken into the body in beverages, soups, and in the form of solid foods. Fluid needs are increased with sweating, vomiting, diarrhea, high-protein diets, and in hot environments. An insufficient intake may cause dehydration, evidenced by loss of weight, increased body temperature, and dizziness.

GUIDE TO GOOD EATING

LEARNING OBJECTIVE: *Recall the elements of the USDA Food Guide Pyramid and recommended dietary guidelines.*

Calculating a therapeutic diet can be complicated and is best left to dietitians. It is now common practice for dietitians or dietary kitchens to select foods for diets using the food groups outlined in figure 9–2, the Food Guide Pyramid. These foods are classified according to their nutritional value and the number of servings that should be eaten each day.

THE FOOD GUIDE PYRAMID

The Food Guide Pyramid emphasizes foods from the five food groups shown in the sections of the pyramid. Each of these groups provides some, but not all, of the nutrients we require. For good health we need them all. For everyday living, the simplest and most practical plan is to follow those same guidelines, selecting from the various food groups the type and amount of food recommended.

DIETARY GUIDELINES

The food pyramid graphically communicates the message of the Dietary Guidelines for Americans. Diets should be built upon a base of complex carbohydrates and less fats. The placement of the food groups starting at the base of the pyramid conveys the current recommendations. These recommendations are as follows:

- Eat more grains, vegetables, and fruits
- Eat moderate amounts of lean meats and dairy foods
- Use sweets, fats, and oils sparingly

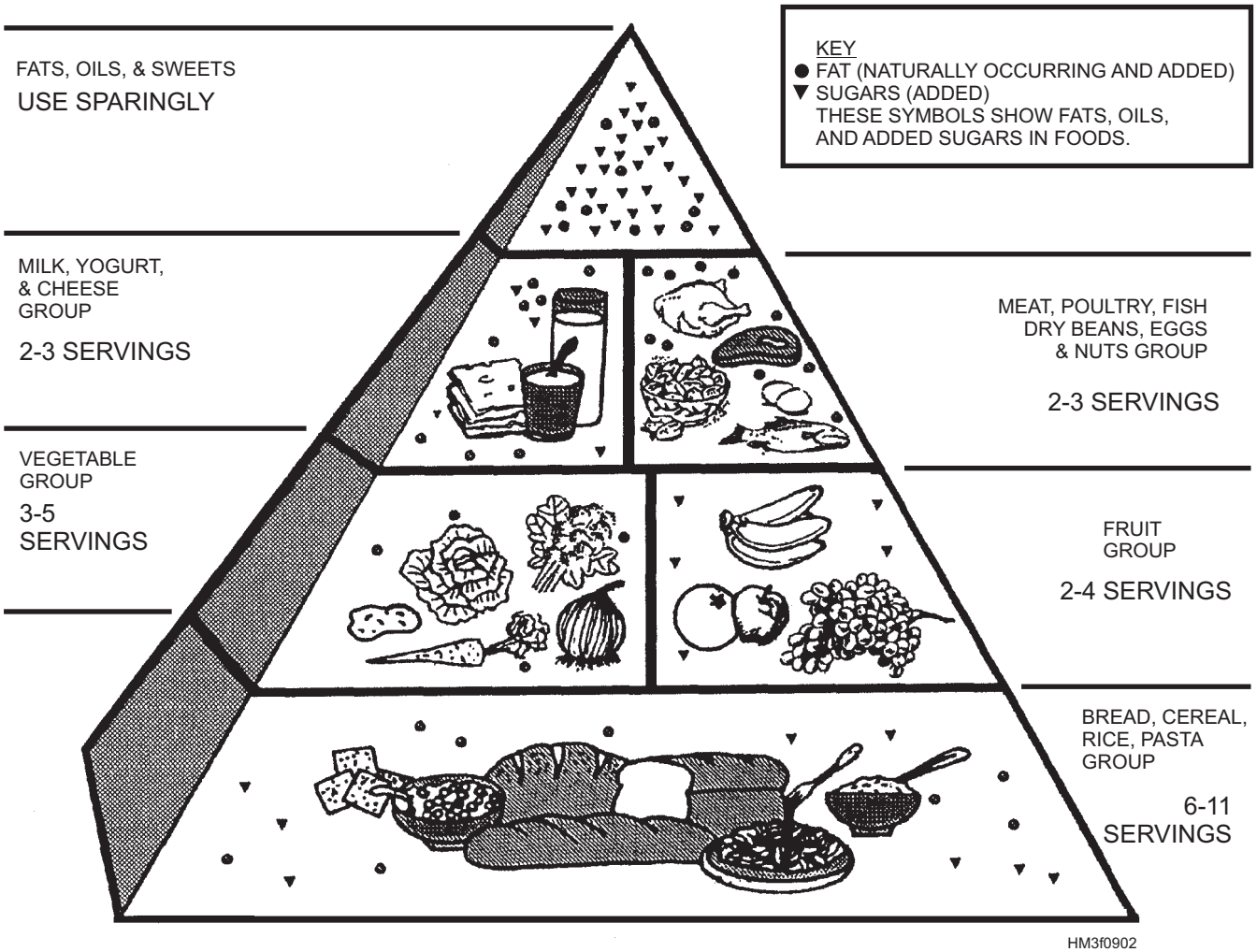

Figure 9-2.—Food Guide Pyramid.

Generally accepted guidelines suggest that you eat a diet that is high in complex carbohydrates and low in protein and fat. Your diet should consist of at least five combined servings of fruits and vegetables each day. Avoid fat when possible. Eat at regular intervals when possible, and avoid snacking late at night. For detailed information on nutrition, consult *Navy Nutrition and Weight Control Guide,* NAVPERS 15602; and the *Fat, Cholesterol and Calorie List for General Messes,* NAVSUP 580.

DIET THERAPY

LEARNING OBJECTIVE: *Select the appropriate diet for various medical conditions.*

It is often necessary to cater to a patient's appetite, since many individuals become especially hard to please when sick. In some disease states, such as cancer, patients experience marked taste changes. Because of the importance of the nutritional elements in feeding the sick, try to carry out the patient's wishes whenever possible. A tactful and observant Hospital Corpsman can be of great benefit to the physician and dietitian in carrying out the dietary regimen. You must be aware of what comprises a well-balanced diet and should be able to recognize when dietary adjustments need to be made in special situations. This is important to meet the changing needs of the diseased body's ability to make use of foods.

The patient should be made to feel that the utmost cleanliness and care have been observed in the preparation and service of their food. The patient's face and hands should be cleaned before food is served, and the lips and teeth cleaned before and after the meal. If the mouth is dry, it should be moistened periodically.

When special or modified diets are ordered, check the contents of the tray with the written orders. An error in serving a special diet may cause discomfort, serious illness, or even death.

OBJECTIVES OF DIET THERAPY

The objectives of diet therapy are as follows:

- To increase or decrease body weight
- To rest a particular organ
- To adjust the diet to the body's ability to use certain foods
- To produce a specific effect as a remedy (e.g., regulation of blood sugar in diabetes)
- To overcome deficiencies by the addition of food rich in some necessary element (e.g., supplementing the diet with iron in treating macrocytic anemia)
- To provide ease of digestion by omitting irritating substances, such as fiber, spices, or high-fat foods

TYPES OF DIETS

Diets used in the treatment of disease are often spoken of by specific names that show a special composition and often indicate the purpose for which the diet is intended.

Regular Diet

The regular diet is composed of all types of foods and is well balanced and capable of maintaining a state of good nutrition. It is intended for convalescing patients who do not require a therapeutic diet.

Modified or Therapeutic Diets

Modified or therapeutic diets are modifications of the regular diet and are designed to meet specific patient needs. These include

- method of preparation (e.g., baking, boiling, or broiling),
- consistency (e.g., ground or chopped),
- total calories (e.g., high or low calorie),
- nutrients (e.g., altering carbohydrate, protein, fat, vitamins, and minerals), and
- allowing only specific foods (e.g., diabetic diet).

SOFT DIET.—The soft diet is soft in texture and consists of liquids and semi-solid foods. It is indicated in certain postoperative cases, for convalescents who cannot tolerate a regular diet, in acute illnesses, and in some gastrointestinal disorders. A soft diet is an intermediate step between a liquid and regular diet and is low in connective tissue and indigestible dietary fiber. Little or no spices are used in its preparation.

The soft diet includes all liquids other than alcohol, and foods that may be incorporated into a soft

diet include well-cooked cereals, pastas, white bread and crackers, eggs, cottage cheese, tender meat, fish, poultry, and vegetables (including baked, mashed, and scalloped potatoes). Vegetables can be puréed and meats ground for dental patients. Permitted desserts are custards, gelatin puddings, soft fruits, and simple cakes and cookies. Foods prohibited in a soft diet include fried foods, raw vegetables, and nuts.

LIQUID DIET.—A liquid diet consists of foods that are in a liquid state at body temperature. This type of diet is indicated in some postoperative cases, in acute illnesses, and in inflammatory conditions of the gastrointestinal (GI) tract. It is important that feedings consisting of 6 to 8 ounces or more be given every 2 to 3 hours while the patient is awake.

Liquid diets are usually ordered as clear, full, or dental liquid. A **clear liquid diet** includes clear broth, black tea or coffee, plain gelatin, and clear fruit juices (apple, grape, and cranberry), popsicles, fruit drinks, and soft drinks. This diet is inadequate in all nutrients. A **full liquid diet** includes all the liquids served on a clear liquid diet, with the addition of strained cream soups, milk and milk drinks, ice cream, puddings, and custard. The full liquid diet is inadequate in iron, niacin, and possibly Vitamin A and thiamin. A **dental liquid diet** includes regular foods blended and strained in liquid form and all foods allowed on clear and full liquid diets. Vitamin and mineral supplements may be necessary with the dental liquid diet if the recommended amounts of food are not tolerated.

HIGH-CALORIE DIET.—The high-calorie diet is of a higher caloric value than the average patient normally requires. A high-calorie diet is indicated when an increase of total calories is required by malnourished, underweight, postsurgical, or convalescing patients, especially those recovering from acute illnesses such as infections, burns, and fevers. The increase in calories is obtained by supplementing or modifying the regular diet with high-calorie foods or commercial supplements, by giving larger portions, or by adding snacks. It is given to meet a need for energy caused by the more rapid metabolism that accompanies certain diseases (especially fever, hyperthyroidism, poliomyelitis, and tuberculosis). In the liquid or soft diet, adding fats and carbohydrates increases the caloric value. The high-calorie diet is often ordered along with high protein. Proteins are added to prevent depletion of proteins in the plasma (a condition known as hypoproteinemia). As the patient progresses, a more solid diet is given.

Good sources of high-calorie foods are whole milk, cream, sweets, butter, margarine, fried foods, gravy, sauces, and ice cream. Between-meal feedings consisting of milk, milkshakes, cheese, cookies, or sandwiches are recommended, but these feedings should not interfere with the patient's appetite at mealtime.

HIGH-PROTEIN DIET.—As previously stated, protein is essential for tissue growth and regeneration. A high-protein diet is indicated in almost all illnesses (e.g., nephrosis, cirrhosis of the liver, infectious hepatitis, burns, radiation injury, fractures, some GI disorders, conditions in which the protein blood level is low, and in preoperative and postoperative cases).

In some acute illnesses and disorders, such as infectious hepatitis, GI disorders, and postoperative conditions, patients may be unable to consume solid foods or the daily requirement of protein and calories because of pain or nausea. In these cases, intravenous fluids with nutrient additives are required for the patient to receive the required amount of protein.

Protein-calorie deficiency is a definite factor in postoperative wound disruption. This disruption can best be prevented by preemptive nutritional measures before surgery. Antibody production will be decreased if the patient receives inadequate protein. Remember, the daily recommended intake of proteins for adults is at least 0.8 g/kg of body weight (approximately 56 g). A high-protein diet should provide a minimum of 1.5 g of protein per kg of body weight (approximately 105 g). The seriously burned and radiation injury patients should receive at least 3.0 g/kg daily.

Supplement the regular diet with high-quality protein foods, such as meat, fish, cheese, milk, and eggs.

LOW-CALORIE DIET.—The low-calorie diet is useful in the treatment of obesity, but it may also be used to control weight in medical conditions such as arthritis, hypertension, diabetes, cardiac disease, or hypothyroidism. A loss of 1 to 2 pounds per week is the medically acceptable limit for weight reduction. A low-calorie diet consists of 1,000 to 1,800 calories per day. Calorie levels are determined by physicians and dietitians to help meet specific individual patient weight-loss goals. The daily intake of proteins should be at least 0.8 g/kg of standard body weight. Supplemental vitamins may be ordered if the prescribed diet is less than 1,200 calories.

Patients on low-calorie diets should be instructed by the dietitian (if available) or other medical

personnel knowledgeable in proper eating habits. The dietitian conducts patient interviews to learn the patient's eating behaviors, usual portions, preparation of foods, meal patterns, nutritional adequacy, exercise, and so forth. Individual programs should then be recommended to assist patients to attain and maintain their ideal weight.

The *Handbook of Clinical Dietetics,* published by the American Dietetic Association, lists the following formula for determining ideal body weight. For females, the basic weight for 5 feet is 100 pounds. Add 5 pounds for every inch over 5 feet. For males, the basic weight for 5 feet is 106 pounds, with 6 pounds added for every inch over 5 feet. Adjustments must be made for body build. Reduce desired weight by 10 percent for a small frame; increase it by 10 percent for a large frame. Total caloric requirements are based on ideal body weight plus activity.

Many patients on low-calorie diets experience hunger. To satisfy this hunger or appetite, low-calorie foods such as raw vegetables, broth, black coffee or tea, and other unsweetened or diet beverages should be provided. Water and sodium need not be restricted unless there are cardiac complications or edema, and the restrictions are ordered by the physician.

LOW-PROTEIN DIET.—As the name implies, the low-protein diet is made up of foods that furnish only small amounts of protein and consist largely of carbohydrates and fats (e.g., foods such as marshmallows, hard candy, and butter). This diet is used in renal diseases associated with nitrogen retention or liver disorders. Limited amounts of protein are sometimes advocated in certain kidney diseases (such as chronic nephrotic edema). Low-protein diets for renal failure are usually restricted in sodium and potassium, because these two elements are not excreted properly during this condition. In some cases of chronic renal insufficiency, the protein content of the diet is varied, usually between 40 and 60 g per day, so that there will be sufficient complete protein to maintain nitrogen equilibrium.

In some metabolic disturbances, such as amino acids in the urine, protein restriction may be of therapeutic value.

HIGH-RESIDUE DIET.—The high-residue (high-bulk, high-fiber, high-roughage) diet is indicated in atonic constipation, spastic colon, irritable bowel syndrome, and diverticulosis. This diet encourages regular elimination by stimulating muscle tone, creating softer and larger stools that are more easily propelled through the colon, thereby reducing the pain and cramping that accompany spastic colon or irritable bowel syndrome.

The patient is given a regular diet, with the inclusion of high-residue foods. The main sources of fiber are whole-grain breads and cereals, bran cereals, fresh fruits, and vegetables that are raw or cooked until tender. Whole grain breads and cereals that contain wheat bran have a greater laxative effect than fruits and vegetables, because the bran acts to absorb water within the colon, creating a bulk effect. Fiber intake should be increased gradually to minimize potential side effects of bloating, cramps, and diarrhea. At least one serving of 100 percent wheat bran cereal is recommended daily. Cereals such as raisin bran, Bran Flakes®, Shredded Wheat®, and oatmeal may be used occasionally, but they contain less than half the amount of fiber found in All-Bran® or Bran Buds®. Fresh fruits and vegetables with edible skins, such as apples and grapes, are higher in fiber content than canned fruits or vegetables and their juices.

Dietary intake of refined sugars and starches should be decreased because they are poor sources of fiber. Also, limit white flour products, refined cereals, pies, cakes, and cookies.

Too little fluid in the high-residue diet may cause dehydration and lead to constipation. The patient must drink at least eight 8-ounce glasses of water or other fluids daily, particularly when consuming the recommended amount of bran. Drinking too much alcohol, beverages containing caffeine (such as coffee, cola, tea, and soft drinks), however, can irritate a sensitive colon and can cause dehydration. When possible, use decaffeinated coffee. One or two glasses of water in the morning help to stimulate peristalsis. Excessive intake of foods like dried beans, fruits with seeds and skins, nuts, popcorn, and strong spices may cause irritability, especially during the inflammation period of colon disease states. These foods should be individualized to the patient.

When one is progressing from a low-residue diet after an acute infection or diverticulitis, increase fiber in the diet gradually. Start by adding one serving of 100 percent bran cereal and three servings of whole-grain bread to the low-residue menu pattern. Gradually increase the amount of raw vegetables and fresh fruits to at least four servings per day.

LOW-RESIDUE DIET.—The low-residue diet is indicated in ulceration, inflammation, and other

gastric disorders (such as partial intestinal obstruction or diverticulitis). It is also used in certain postoperative states that affect any part of the GI tract, e.g., a hemorrhoidectomy. Low-residue diets are also used in treating dysenteries of long duration.

The purpose of this diet is to provide nonstimulating, non-irritating, and easily digested material that leaves little residue, thus avoiding mechanical irritation of the GI tract. Various commercially prepared low-residue elemental diet supplements may be given to provide complete nutrition.

LOW-SODIUM DIET.—A low-sodium diet consists of foods containing a very small percentage of sodium, with no salt added in preparation or by the patient. It is impossible to prepare an absolutely sodium-free diet.

The low-sodium diet is indicated when edema is present, in renal diseases, hypertension, and certain cardiac conditions.

The nephrotic patient is often unable to excrete sodium in a normal manner because the kidneys' retention of sodium leads to edema. A low-sodium diet is thus indicated, with no restriction on salt-free liquids. Such patients should be encouraged to drink 2,000 to 3,000 milliliters (ml) of low-sodium fluids daily.

The allowance of sodium in a strict low-sodium diet is 250 to 1,000 mg daily. The allowance of sodium in a moderate low-sodium diet is 2,000 mg or 2 g. Regular diets with no salt added contain 2.4 to 4.5 g of sodium.

Any diet in which the amount of sodium is drastically reduced has possible side effects. The patient who is on this diet regimen must be constantly observed—particularly in warm climates—for lassitude, complaints of weakness, anorexia, nausea and vomiting, mental confusion, abdominal cramps, and aching skeletal muscles. Electrolyte imbalances can have serious consequences. If you observe symptoms such as those described above, notify a medical officer.

BLAND DIET.—A bland diet may be helpful for gastritis, hyperacidity, hemorrhoids, peptic ulcers, and other GI disorders. Dietary management of patients with chronic ulcer disease has been the subject of much controversy. Bland diets have traditionally been used for these patients. However, experiments show that there is no significant difference in the response of patients with an active duodenal ulcer to a bland diet. Known irritants to the gastric mucosa include alcohol, black pepper, caffeine, chili powder, cocoa, coffee, certain drugs, and tea.

Emphasizing *how* to eat is as important as indicating *what* foods to eat, since there are individual responses to bland diets. Offer the following suggestions to the patient:

- Avoid worry and emotional upsets at mealtime
- Chew food well and eat slowly
- Rest before and after meals
- Avoid foods of extreme temperatures

If fruits and juices between meals cause distress, try including them with meals. Meals must be kept small to reduce gastric acidity and distention. Among foods to avoid in the bland diet are

- fatty meats,
- fried foods,
- whole-grain breads and cereals,
- dried beans and peas,
- cabbage-family vegetables,
- chocolate,
- nuts and seeds, and
- carbonated beverages, caffeine, coffee, and tea.

Patients on a bland diet may use spices and condiments such as allspice, cinnamon, mace, paprika, sage, thyme, catsup, cranberry or mint jelly, and extract and flavorings without chocolate or vinegar.

The bland diet allows a more liberal food selection than other restrictive diets. This diet reduces the number of meals to three, and increases the quantity of foods given. Individualize the diet to the patient.

The "Regular-No Stimulants Diet" (also called "liberal bland"), a type of bland diet, eliminates **only** those items that have been shown scientifically to irritate the gastric mucosa (i.e., alcohol, black pepper, caffeine, chili powder, cocoa, coffee, certain drugs, and tea).

Decaffeinated coffee may be restricted in most types of bland diets. Recent studies show that it causes increased gastric acid secretion and esophageal pressure causing gastric acid reflux in the esophagus. Decaffeinated coffee is only offered on the bland diet

and the regular-no stimulants diet if it is tolerated by the patient.

Chronic and excessive use of antacids to treat hyperacidity and related conditions may result in thiamin deficiency, presumably because of alkaline destruction of thiamin within the bowel lumen. Excessive intake of milk with antacids may cause systemic alkalosis and hypercalcemia. Milk may be contraindicated in patients with allergic reactions or lactose intolerance.

LOW-CARBOHYDRATE, HIGH-PROTEIN DIET.—A low-carbohydrate, high-protein diet is used in the treatment of hypoglycemia. This diet limits simple carbohydrates that are quickly absorbed into the blood. A marked rise in blood sugar stimulates the pancreas to overproduce insulin, which leads to a hypoglycemic state as too much sugar is transported out of the blood.

Individualize the diet to the patient, since hypoglycemic reactions may occur at any time for various reasons. For example, meal skipping, inadequate calorie intake with excessive energy expenditure, and drinking alcohol may precipitate a low-blood-sugar reaction.

The foods may be divided into three to six or more small meals. Liberal amounts of protein and fat are used, as they are more slowly digested and absorbed. The diet includes meats, fish, poultry, cheese, eggs, fats, low-starch vegetables, and limited amounts of unsweetened fruit and juices, breads, cereals, and high-starch-content vegetables (like corn, peas, and potatoes). Because milk contains the sugar lactose, limit it to 2 cups a day for an adult.

Sweets such as candy, sugar, jams, jellies, soft drinks, and pastries should be avoided to help prevent hypoglycemic reactions. They should be consumed only when necessary to quickly increase blood-sugar levels during a hypoglycemic reaction. If reactions are frequent, it is helpful to carry hard candy for quick and easy use. Handy high-protein snacks to help prevent hypoglycemic reactions may include cheese, peanut butter, milk, and hard-boiled eggs.

SUMMARY

Fulfilling the daily requirement of eating a wide variety of foods, in the correct amounts, will contribute directly to a healthy lifestyle. Well-nourished crewmembers with good health are much more able to resist infections, are able to sleep soundly and awake with a pleasant demeanor. By using your knowledge of diet therapy and nutrition to train and treat your crew, your job will be made significantly easier.

CHATER 10

EMERGENCY DENTAL CARE AND PREVENTIVE MEDICINE

TERMINAL OBJECTIVE: *Be familiar with the subject matter and technical publications relating to emergency dental care and preventive medicine.*

Because of the nature of our rating and the many responsibilities placed upon us, Hospital Corpsmen must have a general understanding of many areas of medicine. Emergency dental care and preventive medicine practices are two of those areas. Both of these subjects are extremely important, but because they are both already discussed in great detail in other Navy publications, this chapter will present only a brief overview of them. Emergency Dental Care is covered in Section I, and Preventive Medicine is addressed in Section II. For in-depth information, refer to the publications outlined respectively in table 10-1.

Table 10-1.—Publication List

Dental	*DT Advancement Handbook*
	HM Advancement Handbook
	Dental Technician Training Manual, Vol. 1, NAVEDTRA 12572
	Dental Technician Training Manual, Vol. 2, NAVEDTRA 12573
	Manual of the Medical Department, NAVMED P-117, chapter 6
	Various BUMED notes and instructions
	Various SECNAV and OPNAV notes and instructions
Preventive Medicine	*HM Advancement Handbook*
	Manual of Naval Preventive Medicine, NAVMED P-5010
	Control of Communicable Diseases Manual, NAVMED P-5038
	Naval Supply Publication 486
	Various BUMED notes and instructions
	Various SECNAV and OPNAV notes and instructions

SECTION I

EMERGENCY DENTAL CARE

In the absence of a dental officer you, as the medical department representative (MDR), will be required to perform basic emergency dental first aid associated with the most common oral conditions and injuries. While this section will introduce you to the basics of dental anatomy and histology, dental terminology, oral diseases and injuries, and the dental record, you will find in-depth discussion of these areas in the DT and HM Advancement Handbooks; chapter 6 of *Dental Technician Training Manual*, *Volume 1*, NAVEDTRA 12572; and in chapter 6 of the *Manual of the Medical Department*, NAVMED P-117.

The primary function of this emergency dental care is to alleviate pain, arrest hemorrhage, or prevent further or complicating injury to dental structures. Ensuring that the entire crew is in good dental health before deployment will prevent most dental-related problems. Therefore, predeployment examinations are very important.

You must administer only **emergency** dental care. Refer routine cases to a dental treatment facility, and refer any cases treated by nondental personnel for follow-up at the earliest opportunity.

DENTAL ANATOMY AND HISTOLOGY

To provide emergency dental care, you will need to be familiar with dental anatomy and histology. The following sections will provide you with basic information; however, if you require more detailed

information on dental anatomy and histology, consult the *Dental Technician Training Manual, Volume 1*, NAVEDTRA 12572, or contact your local dental treatment facility for references.

Dental Anatomy

The adult mouth normally has 32 permanent teeth. On board ship, you will usually be able to refer a patient to a dentist for a dental problem. When you do have to make such a referral, you must be able to correctly describe the problem and its location (e.g., which tooth, which surface of the tooth, etc.) in appropriate dental terminology. Because referrals are infrequent, this required information will not be covered here. However, the information is available in detail in the *Dental Technician Training Manual*, *Volume 2*, NAVEDTRA 12573.

Dental Histology

Dental anatomy deals with the external form and appearance of the teeth. Dental histology studies the tissues and internal structure of the teeth, along with the tissues that surround and support them. It will be helpful to have a knowledge of dental histology in case you need to provide emergency dental treatment.

Dental Terminology

Knowledge of dental terminology is important to interpret emergency treatment plans prepared by dentists and to prepare consultation sheets for referral to dental treatment facilities. Make sure you use standard dental abbreviations when recording entries in a patient's dental record. You will find some important basic dental-related words and definitions in the next section, "Oral Diseases and Injuries." Both the *Dental Technician Training Manual Volume 2*, NAVEDTRA 12573, and the *Manual of the Medical Department*, NAVMED P-117, will provide you with a more in-depth listing of dental terminology.

ORAL EXAMINATION

Before performing an oral examination, you should review the patient's medical and dental histories. Note the medications the patient is currently taking. The dental health questionnaire should be updated if any significant changes in the patient's health status have occurred since the form was last updated by the patient.

When you examine the oral cavity, use a thorough and systematic approach. You must have a knowledge of the normal dental anatomy and histology to recognize oral diseases and injuries. The chief complaint that brought the patient to seek treatment will fall into the category of either an oral disease or condition or an oral injury.

The following are brief descriptions of the major oral diseases or conditions and oral injuries that may be seen during an oral examination.

- **Dental caries** are the result of localized decay of the calcified tissues of teeth. Bacterial plaque is the most common cause of dental caries. Bacteria release acids and other toxins that attack tooth enamel and produce carious lesions called **cavities**.
- **Acute pulpitis** is a severe inflammation of the tooth pulp. Usually, it is the result of dental caries.
- A **periapical abscess** usually results from an infection of the tooth pulp, often developing as a result of unchecked pulpitis.
- **Gingivitis** is an inflammation of the gingival tissue. The most frequent cause of marginal gingivitis is poor oral hygiene.
- **Necrotizing ulcerative gingivitis** (**NUG**) is a severe inflammation of the gingival tissue. NUG may be also referred to as **trench mouth**. NUG is not contagious.
- **Periodontitis** is an inflammatory condition that involves the gingivae, the crest of the alveolar bone, and the periodontal membrane above the alveolar crest.
- A **periodontal abscess** is caused by an infection in the periodontal tissues.
- **Pericoronitis** is an inflammation of the gingiva around a partially erupted tooth. It may also result from constant contact between the tissue flap and a tooth in the opposing arch.
- **Stomatitis** is an inflammation of the oral mucosa.
- **Recurrent labial herpes** is an infection that produces a fever blister or cold sore. Such a lesion is usually found on the lip.
- **Postoperative hemorrhage** may occur any time from a few hours to several days after a tooth extraction. The bleeding from the extraction site may be light or heavy. Treat all abnormal postextraction bleeding as serious.

- **Alveolar osteitis**, also known as **dry socket**, results when a normal clot fails to form in the socket of a recently extracted tooth. Since this condition is usually very painful, always consider it a serious emergency.

- Pain in **fractured teeth** usually results from the irritation of the pulp tissue. Additional information concerning the types of fractures is contained in chapter 6 of the *Dental Technician Training Manual, Volume 1*, NAVEDTRA 12572.

DENTAL RECORD

Each service member's military dental treatment record consists of a *Dental Record Jacket*, NAVMED 6150/21-30, containing dental treatment forms. The form used to record dental treatment is EZ603A. It is imperative that all forms documenting patient care contain adequate treatment information. Additional information concerning dental forms is contained in chapter 2 of the *Dental Technician Training Manual, Volume 2*, NAVEDTRA 12573; and chapter 6 of the *Manual of the Medical Department*, NAVMED P-117.

SECTION SUMMARY

When dental emergencies occur and dental facilities are not readily available, medical personnel are expected to perform basic emergency dental care. This section has provided basic information on fundamental dental histology and a variety of dental conditions. We also discussed the importance of dental record maintenance and dental forms used by medical personnel.

SECTION II

PREVENTIVE MEDICINE

Prevention and control of disease are considered the most desirable means of maintaining good health. Information included in this overview should provide you with a general knowledge of the principles and practices of the Navy's Preventive Medicine afloat and ashore. This information is discussed in detail in the *Manual of Naval Preventive Medicine*, NAVMED P-5010.

SANITATION

Sanitation is defined as the formulation and application of measures designed to protect (military) public health, and the disposal of waste. The goal of the Navy's sanitation program is to provide personnel with a clean and healthy work and living environment.

Personal Hygiene

Because of the close living quarters in the Navy, particularly aboard ships, personal hygiene is of utmost importance: Uncleanliness or disagreeable ordor will surely affect the morale of your shipmates. Disease and other health problems can spread and rapidly affect an entire compartment or division. Good personal hygiene promotes health and prevents disease. You are responsible for presenting health education training programs to the personnel in your unit, including information on the basics of personal hygiene, and proper exercise, sleep, and nutritional requirements.

Sanitation of Living Spaces

You, as the MDR, perform sanitation inspections and provide recommendations to the commanding officer. The living spaces, their inspection, and living space cleaning and maintenance practices are discussed in detail in the *Manual of Preventive Medicine, NAVMED P-5010.*

HABITABILITY

Factors that can effect habitability of working and berthing spaces are air ventilation, heating, and air conditioning.

Measurements of thermal stress are used to monitor environmental conditions in which personnel work, live, and exercise. Monitoring environmental conditions is crucial to maintaining a safe environment for personnel. For more detailed information on the items discussed in this section, you should refer to *Manual of Naval Preventive Medicine,* NAVMED P-5010.

VECTOR AND PEST CONTROL

A **vector** is any animal capable of transmitting pathogens or producing human or animal discomfort or injury. Some of the commonly encountered vectors are insects, arthropods (insects with hard, jointed exoskeleton and paired, jointed legs), and rodents. **Pests**, on the other hand, are organisms (insects, rodents, fungi, bacteria, snakes, etc.) that adversely affect military operations and the well-being of man and animal; attack real property, supplies, and equipment; or are otherwise undesirable. For more detailed information on the items discussed in this

section, you should refer to *Manual of Naval Preventive Medicine,* NAVMED P-5010.

FOOD-SERVICE SANITATION

Food-borne illnesses represent an ever-present threat to the health and morale of our military personnel. To prevent food-borne illnesses, you will need to ensure that all foods are procured from approved sources and processed, prepared, and served with careful adherence to recommended sanitary practices. When assigned as a medical department representative for a command or station, you may be given the responsibility of inspecting food, food-service facilities, and investigating food-borne illness outbreaks.

For guidance on safe time limits for keeping food, proper storage temperatures, and storage life of perishable and semi-perishable items, refer to tables in Naval Supply Publication 486.

Training and Hygiene of Food-Service Personnel

Food-service personnel should be thoroughly indoctrinated in personal hygiene and food sanitation procedures and in the methods and importance of preventing food-borne illness. Requirements for food service training are addressed in *Food Service Training Program*, SECNAVINST 4061.1.

Food-Service Inspection Report

Navy and Marine Corps food-service facilities are required to be inspected by a medical department representative, together with the food-service manager or officer or designated representative. The findings of the inspection are reported on a NAVMED Form 6240/1, *Food Service Sanitation Inspection*. A system has been established in which maximum defect points are awarded for each stated requirement. The inspector assigns an appropriate number of defect points up to the maximum possible and computes a sanitary compliance score (SCS). Complete step-by-step procedures for filing the report and computing the SCS are provided in the *Manual of Naval Preventive Medicine,* NAVMED P-5010.

IMMUNIZATIONS AND COMMUNICABLE DISEASES

Navy and Marine Corps personnel are exposed to a wide variety of environmental conditions, including climatic extremes, stressful situations, and close living quarters. Many of these personnel travel to foreign lands where conditions may not only be unsanitary, but where a high level of disease may also exist. Preventive medicine's major role is to minimize disability by emphasizing immunization programs.

Immunizations

Vaccines used to protect Navy and Marine Corps personnel against certain diseases before exposure to infection are called **prophylactic immunizations**. Prophylactic immunizations are limited to very serious diseases for which effective and reliable immunizing agents have been developed.

Immunizations procured for the Armed Forces are required to meet the minimum standards set by the Department of Health and Human Services (DHHS).

Immunizations for Military Personnel

Navy and Marine Corps personnel are required to be ready to deploy on a moment's notice. To make sure personnel are prepared for deployment, you should review their immunization records on a routine basis, and, before deployments, also review BUMEDINST 6230.15, *Immunizations and Chemoprophylaxis*. Initial and booster dosages and routes of administration are dictated by the vaccine manufacture, the U.S. Public Health Service Immunization Practices Advisory Committee (ACIP), or both.

Communicable Diseases

Communicable diseases, as the name implies, are diseases that may be transmitted from a carrier to a susceptible host. They may be transmitted from an infected person or animal or indirectly through an intermediate host, vector, or inanimate object. The illness produced is the result of infectious agents invading and multiplying in the host, or from the release of their toxins (poisons).

An important step in the control of communicable disease is the expedious preparation and submission of the **Medical Event Report**. Instructions and requirements for reporting to local, state, national, and international health authorities can be found in the preface of the *Control of Communicable Diseases Manual*, NAVMED P-5038. In addition, you should follow instructions for the *Medical Event Report* (MER), BUMEDINST 6220.12, when reporting

communicable diseases affecting Navy and Marine Corps personnel.

WATER SUPPLY

A hygienically safe and continuously dependable water supply is a necessity of life. Drinking water should be free of disease-producing organisms, poisonous chemicals, as well as from objectionable color, odor, and taste. For more detailed instruction on these topics, you should review the *Manual of Naval Preventive Medicine,* NAVMED P-5010.

Water Supply Ashore

With rare exceptions, Navy and Marine Corps activities ashore within the continental limits of the United States are situated where a municipal water supply is available. BUMEDINST 6240.1, *Standards for Potable Water*, sets drinking water standards for U.S. naval establishments worldwide, both ashore and afloat.

Water Supply in the Field

Hospital Corpsmen are frequently called upon to approve field water sources and to recommend disinfection methods before water is considered safe to drink. Consider water acquired in the field as unsafe until it has been disinfected and tested. Approval of water sources should be based on a thorough surveillance of available water sources.

WATER QUANTITY REQUIREMENTS.—The daily water requirements for personnel in the field vary with a number of factors, including the season of the year, geographical location, and the tactical situation. Personnel who do not drink enough water can quickly become dehydrated both in extremely hot or extremely cold climates.

WATER TREATMENT.—Water treatment is the process of purifying water to make it potable (safe to drink). Various processes can be used to purify water. These processes include **aeration**, **coagulation**, **flocculation**, **filtration**, **reverse osmosis**, and **disinfection,** all of which are discussed in depth in NAVMED P-5010.

Water Supply Afloat

Potable water for shipboard use comes from one of several sources: the ship's distillation plant, shore-to-ship delivery, or ship-to-ship transfer. The ship's medical department is responsible for determining the quality of the water. The ships engineering section determines the quantity stored or produced, and performs the actual chlorination or bromination.

Water Testing

Naval vessels follow water testing requirements and procedures outlined in the latest edition of *Standard Methods for the Examination of Water and Wastewater,* published by the American Public Health Association (APHA), American Water Works Association (AWWA), and the Water Pollution Control Federation (WPCF).

Manufacture and Handling of Ice

Most ships and shore activities use ice machines to make ice. To reduce bacterial growth, ice used around food or in food or drink must be made from potable water. All ice must be prepared in a sanitary manner and afforded the same protection as potable water. The medical departments aboard ships are required to include ice samples in any bacteriological analyses they perform on water.

WASTEWATER TREATMENT AND DISPOSAL

Wastewater is the spent water of a ship, base, industrial plant, or other activity. This spent water contains wastes, such as soil, detergent, and sewage. The proper disposal of these waste materials is one of the most important measures for controlling water-borne diseases, such as cholera and typhoid fever.

Wastewater Treatment and Disposal Systems Ashore

The use of approved municipal or regional wastewater collection and disposal systems is the preferred method for disposing of wastes from shore activities. Accordingly, municipal or regional wastewater disposal systems are used by Navy shore activities whenever feasible.

Wastewater Treatment and Disposal Systems Afloat

The overboard discharge of untreated sewage from DoD ships within the navigable waters of the United

States and the territorial seas (within three nautical miles of shore) is prohibited by federal law. To comply with the law, naval vessels are being equipped with marine sanitation devices (MSDs) that either treat sewage before discharge or collect and hold it until it can be properly disposed of through dockside sewer connections or pumped overboard in unrestricted waters. For more detailed instruction on these topics, you should review *Manual of Naval Preventive Medicine*, NAVMED P-5010.

SECTION SUMMARY

This section discussed basic information pertaining to sanitation, habitability management, pest and vector control, food-borne illness, food-service sanitation, food-service inspections, and food-borne illness outbreak investigations.

We also discussed communicable diseases, water supply, and wastewater treatment and disposal procedures. This section discussed information on the safe and proper handling of potable water, bacteriological tests, treatment, and disinfection. A general review of wastewater treatment and disposal procedures for shore and afloat activities was also included in this section.

SUMMARY

This chapter has provided a general overview on a variety of fundamental dental conditions and preventive medicine situations. Because of the nature of our rating and the many responsibilities placed upon us, Hospital Corpsmen must have a general understanding of many areas of medicine. Dentistry and preventive medicine practices are two of those areas. For additional detailed information on these subjects, you should refer to the references listed at the beginning of this chapter.

CHAPTER 11

PHYSICAL EXAMINATIONS

The Department of Defense has established uniform physical standards for all members of the military service. Physical examinations are conducted to interpret each individual's physical qualification for initial entry, mobilization, retention, assignment to special duties, and training programs that lead to enlistment and commissioning. The purpose of the examination is to identify physical defects and psychological problems that would compromise a member's ability to perform duties normally assigned. Physical standards are intended to preclude acceptance of those individuals who present contagious or infectious hazards to other personnel, would be unable to perform assigned duties, or who have conditions likely to be aggravated by naval service.

The purpose of this chapter is to review the various types of physical examinations and their requirements, provide a general understanding of how physical examination forms and reports are completed, and cover some of the testing procedures and equipment for which you may be responsible. In your capacity as a Hospital Corpsman, you will function as both clerical and medical assistant to the medical examiner. To do this properly, you should be familiar with administrative regulations that apply to physical examinations. You should also ensure the patient's health record is correct and complete, all tests and laboratory results are recorded, and the completed report of medical examination and history are properly filed in the member's health record.

TYPES OF PHYSICAL EXAMINATIONS

LEARNING OBJECTIVE: *Differentiate between the types of physical examinations.*

Physical examinations, whether routine or special duty, are mandatory for members at certain times during their military careers. The first of these examinations is the entrance (enlistment, appointment, or commissioning) physical examination, and the last is the physical examination that occurs upon separation from the service. In addition to these two, there may be several others, depending on the length of the member's service or special duty requirements.

Physical examinations of Marine Corps and Navy personnel, active and reserve, are performed by Navy medical officers or other credentialed providers. If a Navy medical officer or credentialed provider is not available, the medical examination may be performed by a Department of Defense (DoD) physician or credentialed civilian contracted physician. Dental examinations are normally performed by Navy dental officers. For further information on dental examinations for naval reserve personnel, refer to the *Manual of the Medical Department* (MANMED), NAVMED P-117.

Most physical examinations will require special studies (tests). Some of these special studies (which will be performed in advance of the physical examination by the medical examiner) may include laboratory tests to detect syphilis (RPR), HIV, and cholesterol levels; optometric evaluation to determine visual acuity; audiometric testing for hearing capabilities; and dental examination to determine dental fitness. For more information on special study requirements for each type of physical examination, refer to the MANMED and directives that address specific physical examinations.

ROUTINE PHYSICAL EXAMINATIONS

Essentially, there are four types of routine physical examinations you should know about. They are the **entrance**, **periodic**, **reenlistment**, and **separation** physicals. The MANMED provides specific instructions on how and when each type of physical is to be conducted.

Entrance (Enlistment, Appointment, and Commissioning) Physical Examination

The Department of Defense (DoD) establishes the standards for entry into military service (DoD Directive 6130.3). Entry physical standards for training programs leading to officer appointment are more stringent than the basic physical qualifications for enlistment or commissioning. This policy ensures qualification of the member at the time of his appointment.

Entrance physical examinations are normally performed at Military Entrance Processing Stations (MEPS). Entrance physical examination results are documented on the *Report of Medical Examination* (SF-88) and *Report of Medical History* (SF-93). The original completed physical examination forms are permanently filed in the member's health record. Copies of the completed examination forms are filed by the examining facility for a specified period of time. (See MANMED for current physical examination disposition requirements.) This policy applies to all of the physical examinations service members may have throughout their career. The forms used for the entrance physical (SF-88 and SF-93) are also used for many of the routine and special duty physical examinations that will be discussed in more detail later in this chapter.

Periodic Physical Examination

The purpose of the periodic examination is to determine physical qualification for retention on active duty and to maintain current medical data regarding physical qualification of personnel. Retention standards are not the same as entrance standards; the prime consideration for retention is the ability to continue active service. The periodic physical examination evaluates the member's current state of health. The examination also includes documentation of chronic or unresolved medical complaints from injuries or illnesses incurred during military service or complaints or injuries that may have existed before induction. The periodic physical examination is conducted at the intervals prescribed in the MANMED.

If the examining medical officer determines a defect exists that he cannot adequately evaluate, a consultation or referral for further evaluation may be initiated. If the defect is severe enough, the member may be referred to a medical board. A medical board is convened to evaluate and report on the diagnosis; prognosis for return to full duty; plan for further treatment, rehabilitation, or convalescence; estimate the length of further disability; and provide medical recommendations for disposition of the service member being evaluated.

A member may be considered physically qualified (PQ) despite the presence of certain medical conditions. However, if it is clearly determined that the condition interferes with the member's capability of functioning in the naval service effectively, the member may be processed for an administrative or medical discharge. Additional guidance is provided in the *Military Personnel Manual* (MILPERSMAN) and applicable Navy and Marine Corps directives.

Reenlistment Physical Examination

The purpose of the reenlistment physical examination is to determine if service members are physically qualified to be retained on active duty. A complete medical examination is not required if there is a valid examination (i.e., entrance, periodic, or special duty physical) in the service member's service record. The reenlistment physical consists of a medical record review and documentation of medical conditions that may need consideration or further inquiry by healthcare providers. The service member will also be interviewed by a healthcare provider. Reenlistment criteria specified in the MANMED should be followed during the health record review and the interview of patient.

The results of the reenlistment physical examination are recorded on form SF-600, *Chronological Record of Medical Care*. The healthcare provider will indicate on the SF-600 if the service member is physically qualified for reenlistment. After the physical examination is completed, the SF-600 will be filed in the member's health record.

Separation Physical Examination

Before being released from active duty, members receive a thorough physical examination. If the separation is the result of an evaluation by a medical board, the medical board report serves as the document for the physical examination.

Members who separate from the service—for any reason (i.e., retirement, end-of-enlistment, or administrative discharge)—are required to read the following statement at the time of their physical examination:

> You are being examined because of your separation from active duty. If you feel you have a serious defect or condition that interferes, or has interfered, with the performance of your military duties, advise the examiner. If you are considered by the examiner to be not physically qualified for separation, you will be referred for further evaluation, and, if indicated, appearance before a medical board. If, however, you are found physically qualified for separation, any defects will be recorded in item 74 of the

SF-88 or on an SF-600. Such defects, while not considered disqualifying for military service, may entitle you to certain benefits from the Department of Veterans Affairs (DVA). If you desire further information in this regard, contact the DVA office nearest your home after your separation.

In the case of a service member separating from the Navy or Marine Corps before completion of 90 days of service, a similar statement as above must be read by the separating member. Refer to article 15-29 of the MANMED for this statement. In either case the separating member will be requested to sign the following entry in item 73 on the SF-88 or the SF-600.

I have been informed of and understand the provisions of article XX-XX of the *Manual of the Medical Department*.

Refusal of the member to sign this statement will not delay separation. Rather, the examiner will note in item 73 of the SF-88 or on the SF-600 that the provisions of MANMED article XX-XX have been fully explained to the member, who declined to sign a statement to that effect. Give each member released from active duty a signed, legible copy of the SF 88 or SF-600.

SPECIAL DUTY PHYSICAL EXAMINATIONS

Military personnel who are assigned to or applying for special duty such as aviation duty, diving duty, submarine duty, etc., are required to meet physical requirements above the basic entrance examination requirements. In addition, personnel are required to have a special duty physical if they have psychosocial considerations, are exposed to extreme physical hazards, or if they are to be assigned to sites with inadequate medical facilities. Other special duties requiring preplacement examinations include handling explosives, operating explosives vehicles, and duty as a fire fighting instructor. Specific details for each type of special duty physical examination is delineated in the MANMED.

As with routine physicals, special duty physical examinations are performed by medical officers or DoD civilian physicians. For operational units (squadrons or groups), the medical officer assigned will normally perform special duty examinations. If there is not a unit medical officer, a medical officer assigned to a supporting clinic, hospital, or related operational unit should perform the examination. Physician assistants (PAs) and nurse practitioners may perform special duty examinations if a medical officer or DoD physician is not available or if the examination workload is too great. When a PA or nurse practitioner performs special duty examinations, the examination **MUST** be countersigned in block 80 of the SF 88 by a physician.

Physical examinations for special duty applicants must be completed before reporting for their special duty assignment. If a service member is determined by the medical examiner to be "not qualified for special duty," the member can usually remain in the service but will not be given special duty assignments. To maintain special duty status, service members may have more frequent physical examinations than service members not on special duty status. Validity periods for special duty physicals are discussed in the MANMED. Also, refer to Navy directives that apply to specific special duty examinations for current information on physical qualifications.

OVERSEAS/OPERATIONAL SUITABILITY SCREENING EXAMINATIONS

Upon receipt of accompanied orders overseas or to a remote assignment, the member and, as applicable, his family members will be screened to determine their physical and psychological suitability for transfer. Service members and families who are not screened—or who are improperly screened—can arrive at a duty station with requirements beyond the capability of the local medical, dental, educational, or community facilities. This may result in decreased quality of life, early return from assignment, billet gaps, etc. Proper screening helps ensure a positive and productive tour for the service member. All screening should be completed within 30 days of receipt of orders.

OCCUPATIONAL HEALTH MEDICAL SURVEILLANCE EXAMINATIONS

The Navy uses many materials in its work places, some of which are potentially hazardous to personnel. To minimize the risk associated with these hazardous substances, the Navy developed the *Navy Occupational Safety and Health (NAVOSH) Program*, OPNAVINST 5100.23. Within the NAVOSH Program is the *Medical Surveillance Program*. The Medical Surveillance Program provides physical examination and medical monitoring guidelines for personnel who are exposed to or work with hazardous materials.

Medical surveillance examinations assess the health status of individuals as it relates to their work. Although these exams are not physical examinations as described in this chapter, they are actually surveillance examinations that produce specific information with regard to an individual's health during actual or potential exposure to hazardous materials (i.e., the Asbestos Medical Surveillance Program [AMSP]). Specific guidance on the *Asbestos Medical Surveillance Program* is provided in OPNAVINST 5100.23. Another example of a medical surveillance program is the *Occupational Noise Control and Hearing Conservation Program*. Personnel who work in areas of high sound generation (e.g., flight deck of carrier) must be evaluated periodically for hearing loss. Specific guidance on the Occupational Noise Control and Hearing Conservation Program is provided in NAVMEDCOMINST 6260.5 and OPNAVINST 5100.23.

MEDICAL BOARD EXAMINATIONS AND REPORTS

Medical review boards are the single most important factor in determining fitness for duty in today's Navy. Medical boards are convened and reviews are conducted to determine the various degrees of fitness for military service. Local (re)evaluations are scheduled to assess patient progress and length of limited duty, or need for a formal evaluation at NAVPERSCOM or the Physical Evaluation Board (PEB). The following examples illustrate the legal guidelines, requirements, and job descriptions for the different types of medical boards and describe the duties of the personnel responsible.

Abbreviated Temporary Limited Duty (TLD) Medical Board Report

The abbreviated board report is used only when a member is expected to return to full duty after an adequate period of treatment. Processing time should not exceed 6 working days, and under most circumstances, the report should be completed in 3 working days. The board report is a local action taken by an appropriate medical or dental officer and does not require external departmental review by NAVPERSCOM. The form (NAVMED 6100/5) used for this report is a multi-copy form. It is a vehicle for recording basic medical findings, plans, and expectations in terms of prognosis and length of medical restriction of activity. It also provides for parent command acknowledgment and comment. This form serves as excellent input for the "putting performance into practice" form in the member's health record; however, it is not a substitute for detailed documentation of conditions in the member's health record. The *Abbreviated TLD Medical Board Report* (NAVMED 6100/5) is to be used when **all** of the following criteria are met:

- The member is enlisted in the U.S. Navy or Marine Corps.
- The member suffers from an uncomplicated illness or injury which makes them temporarily unable to fully perform duties to which they are assigned or expected to be assigned, but will most likely be fit for full duty after an adequate period of treatment not exceeding 8 months.
- The member's health or clinical record contains adequate documentation on the nature and circumstances of the illness or injury, its course, prognosis, and treatment.

Patient (Re)evaluation/TLD Duration

Once a member has been placed on TLD, the physician, dental officer, or Independent Duty Corpsman (IDC) (when in an independent operational duty environment), will

- conduct a detailed treatment/rehabilitation assessment and develop a treatment/ rehabilitation plan;
- ensure follow-up evaluations every 2 months, documenting at each evaluation objective findings of continued unsuitability, progress toward recovery, findings and recommendations of specialty evaluations, modifications to the treatment/ rehabilitation plan, and prognosis for return to worldwide assignability; and
- obtain approval from NAVPERSCOM (NPC-821) or CMC (MMSR-4), via the patient administration Limited Duty (LIMDU) Coordinator for periods of TLD less than 8 months, or via a formal board (NPC-821 or MMSR-4) for periods longer than 8 months.

Approval must be obtained via formal board if the initial recommended period of TLD exceeds 8 months, and the total period a member can be on LIMDU must not exceed 16 months.

Uncorrected Condition

If the servicemember's condition cannot be corrected during the initial or subsequent period of TLD and treatment, or if it is clear that the condition will continually interfere with or preclude his ability to function effectively in an operational arena or to deploy worldwide, notify the transferring or parent command and NAVPERSCOM. Subsequent to the second period of TLD, if appropriate, a Physical Evaluation Board (PEB) will adjudicate the case. If the PEB (in Washington, DC) finds the member "fit to continue Naval Service," NAVPERSCOM will direct the command to initiate appropriate administrative action, which may include a recommendation of administrative separation (per MILPERSMAN 1910-120).

Formal Board Report

If conditions warrant (i.e., when the period of recovery is expected to exceed 8 months), the physician or dental officer will dictate a formal board report in accordance with SECNAVINST 1850.4 and MANMED, chapter 18, for submission to NAVPERSCOM (NPC-821). The LIMDU Coordinator is responsible for reviewing the medical board, verifying the content and that the processing time is consistent with current policy. However, a command endorsement is not required on a formal board.

COMPLETING REQUIRED FORMS

LEARNING OBJECTIVE: *Select the appropriate form(s) used for physical examinations and recall how each form should be completed.*

While there are several forms used to record physicals, the scope and purpose of the physical dictates which form or forms should be used. For example, the preplacement and annual physical evaluation of food service personnel or personnel exposed to hazardous materials can, in most cases, be adequately documented on an SF 600. This section discusses the most commonly used physical examination forms.

REPORT OF MEDICAL EXAMINATION, SF 88

The SF 88, Report of Medical Examination, is the principal document for recording a complete physical examination (figs. 11-1 and 11-2). The SF 88 is, like most medical documentation, a legal document. Entries on the form must be legible. If you make a typographical or clerical error, correct the entry by drawing a single line through the erroneous entry, initialing above the error, and making the corrected entry in the same block. If space is not available in that block, make the corrected entry in block 42 (identifying the erroneous entry by number). Chapter 16 of the MANMED provides specific details on information for each block to complete this form properly.

Stamps are used routinely by many naval medical facilities to incorporate routine information or data onto medical documents, as illustrated in blocks 50 and 73 of figures 11-1 and 11-2. The use of stamps must, however, be in accordance with physical examination directives and the MANMED.

REPORT OF MEDICAL HISTORY, SF 93

The purpose of Standard Form (SF) 93, Report of Medical History, is to provide a complete personal medical history and to serve as a source of information that supplements information reported on the SF 88. The SF 93 provides a current, concise, and comprehensive record of a service member's personal medical history before entering the service and any subsequent changes in the member's medical status.

After the military entrance examination, any subsequent medical examinations that require the use of the SF 88 will also require an SF 93 to be completed. Any medical information entered by patients on the SF 93 is made only to document changes in medical history since their last physical examination. If no changes have occurred since the previous SF 93 was generated, the examiner should enter "no significant interval history" in block 25.

When you prepare the SF 93, complete items 1 through 7 in the same manner as you did the SF 88 (fig. 11-3). This information can be handwritten or typed. Inform examinees that they are responsible for completing items 8 through 25 (figs. 11-3 and 11-4). Item 8 should contain a handwritten statement from examinees regarding their present state of health and any medications they may be taking. Items 9 through 24 are checked either "yes," "no," or "don't know" by the examinees. Assist examinees by explaining unfamiliar medical terminology that appears on these items. Helping them complete the form will ensure an accurate accounting of the member's medical history. Keep in mind that the SF 93 is information of

REPORT OF MEDICAL EXAMINATION

1. LAST NAME–FIRST NAME–MIDDLE NAME	2. GRADE AND COMPONENT OR POSITION	3. IDENTIFICATION NO.
Frost, Jack Ronald, JR.	PR1	777-77-7777
4. HOME ADDRESS (Number, street or RFD, city or town, State and ZIP Code)	**5. PURPOSE OF EXAMINATION**	**6. DATE OF EXAMINATION**
212 Sandy Lake Drive Pensacola, FL 31189	Periodic	07 Mar 96

7. SEX	8. RACE	9. TOTAL YEARS GOVERNMENT SERVICE		10. AGENCY	11. ORGANIZATION UNIT
Male	Negroid	MILITARY 10y3m	CIVILIAN		Naval Air Station Pensacola, FL

12. DATE OF BIRTH	13. PLACE OF BIRTH	14. NAME, RELATIONSHIP, AND ADDRESS OF NEXT OF KIN
27 Feb 65	Aurora, PA	JACK R. FROST, SR. (FATHER), 1616 ABALONE LANE, Venice, FL 36521

15. EXAMINING FACILITY OR EXAMINER, AND ADDRESS	16. OTHER INFORMATION
Branch Medical Clinic, NAS Pensacola, FL 32508-7601	Religion - Roman Catholic

17. RATING OR SPECIALTY	TIME IN THIS CAPACITY (Total)	LAST SIX MONTHS

CLINICAL EVALUATION

NORMAL	(Check each item in appropriate column, enter "NE" if not evaluated.)	ABNORMAL
X	18. HEAD, FACE, NECK AND SCALP	
X	19. NOSE	
X	20. SINUSES	
X	21. MOUTH AND THROAT	
X	22. EARS–GENERAL (INTERNAL CANAL S) (Auditory acuity under items 70 and 71)	
X	23. DRUMS (Perforation)	
X	24. EYES–GENERAL (Visual acuity and refraction under items 58, 60 and 67)	
X	25. OPHTHALMOSCOPIC	
X	26. PUPILS (Equality and reaction)	
X	27. OCULAR MOTILITY (Associated parallel movements nystagmus)	
X	28. LUNGS AND CHEST (Include breasts)	
X	29. HEART (Thrust, size, rhythm, sounds)	
X	30. VASCULAR SYSTEM (Varicosities, etc.)	
X	31. ABDOMEN AND VISCERA (Include hernia)	
X	32. ANUS AND RECTUM (Hemorrhoids, Fistulae) (Prostate, if indicated)	
X	33. ENDOCRINE SYSTEM	
	34. G-U SYSTEM	X
X	35. UPPER EXTREMITIES (Strength, range of motion)	
X	36. FEET	
X	37. LOWER EXTREMITIES (Except feet) (Strength, range of motion)	
X	38. SPINE, OTHER MUSCULOSKELETAL	
	39. IDENTIFYING BODY MARKS, SCARS, TATTOOS	X
X	40. SKIN, LYMPHATICS	
X	41. NEUROLOGIC (Equilibrium tests under item 72)	
X	42. PSYCHIATRIC (Specify any personality deviation)	
	43. PELVIC (Females only) (Check how done) ☐ VAGINAL ☐ RECTAL	

NOTES: (Describe every abnormality in detail. Enter pertinent item number before each comment. Continue in item 73 and use additional sheets if necessary)

#34 Urinary Tract Infection resolved

#39 Scar right elbow & tattoo left arm.

(Continue in Item 73)

44. DENTAL (Place appropriate symbols, shown in examples, above or below number of upper and lower teeth.)

Restorable Teeth · Non-restorable teeth · Missing Teeth · Replaced by Dentures · Fixed Partial dentures

RIGHT: X1 2 3 4 5 6 7 8 — 9 10 11 12 13 14 15 16 X — 32 31 30 29 28 27 26 25 — 24 23 22 21 20 19 18 17 X — LEFT

REMARKS AND ADDITIONAL DENTAL DEFECTS AND DISEASES

Type 2
Class 2
Qualified: Yes

LABORATORY FINDINGS

45. URINALYSIS: A. SPECIFIC GRAVITY	46. CHEST X-RAY (Place, date, film number and result)
B. ALBUMIN / C. SUGAR / D. MICROSCOPIC	

47. SEROLOGY (Specify test used and result)	48. EKG	49. BLOOD TYPE AND RH FACTOR	50. OTHER TESTS
RPR: NONREACTIVE DATE: 05 Mar 96		B+	FAST GLU 105 CHOL 220 TRIG 110 LDL 140 HDL 58 HCT ____ HIV Neg.

NSN 7540-00-753-4570
88-125

HM3f1101

Standard Form 88 (Rev. 3-89)
General Services Administration
Interagency Comm. on Medical Records
FIRMR (41CFR) 201-45.505

Figure 11-1.—Example of completed front side of SF 88.

MEASUREMENTS AND OTHER FINDINGS

51. HEIGHT	52. WEIGHT	53. COLOR HAIR	54. COLOR EYES	55. BUILD:	56. TEMPERATURE
75" (190.5)	200 (90.00)	Brown	Brown	☐ SLENDER ☒ MEDIUM ☐ HEAVY ☐ OBESE	98.7° F

57. BLOOD PRESSURE (Arm at heart level)						58. PULSE (Arm at heart level)				
A. SITTING	SYS. 110 / DIAS. 80	B. RECUMBENT	SYS. / DIAS.	C. STANDING (5 min.)	SYS. / DIAS.	A. SITTING 72	B. AFTER EXERCISE	C. 2 MIN. AFTER	D. RECUMBENT	E. AFTER STANDING 3 MIN.

59. DISTANT VISION	60. REFRACTION			61. NEAR VISION	
RIGHT 20/ 200+ CORR. TO 20/ 20	BY	S.	CX	CORR. TO	BY
LEFT 20/ 200+ CORR. TO 20/ 20	BY	S.	CX	CORR. TO	BY

62. HETEROPHORIA (Specify distance)

ES*	EX*	R.H.	L.H.	PRISM DIV.	PRISM CONV. CT	PC	PD

63. ACCOMMODATION RIGHT	LEFT	64. COLOR VISION (Test used and result)	65. DEPTH PERCEPTION (Test used and score)	UNCORRECTED / CORRECTED
		Falant Pass 9/9		
66. FIELD OF VISION		67. NIGHT VISION (Test used and score)	68. RED LENS TEST	69. INTRAOCULAR TENSION
Full OU				

70. HEARING			71. AUDIOMETER ANSI 69									72. PSYCHOLOGICAL AND PSYCHOMOTOR (Tests used and score)
RIGHT WV	/15 SV	/15		250 256	500 512	1000 1024	2000 2048	3000 2896	4000 4096	6000 6144	8000 8192	
LEFT WV	/15 SV	/15	RIGHT	XX	10	05	00	10	05	25	XX	
			LEFT	XX	10	10	00	05	10	15	XX	

73. NOTES (Continued) AND SIGNIFICANT OR INTERVAL HISTORY

Neck: 16
Waist: 36
Body Fat %: 20%

THIS PHYSICAL EXAMINATION HAS BEEN ADMINISTRATIVELY REVIEWED FOR COMPLETENESS AND ACCURACY.

Flora A. Brush (Floss A. Brush) HM2 08 Mar 96

SIGNATURE RATE DATE

(Use additional sheets if necessary)

74. SUMMARY OF DEFECTS AND DIAGNOSES (List diagnoses with item numbers)

#59 Refraction errors corrected to 20/20 O.D. & 20/20 O.S.

75. RECOMMENDATIONS--FURTHER SPECIALIST EXAMINATIONS INDICATED (Specify)

76. A. PHYSICAL PROFILE

P	U	L	H	E	S

77. EXAMINEE (Check)

A. ☒ IS QUALIFIED FOR Full Duty

B. ☐ IS NOT QUALIFIED FOR

B. PHYSICAL CATEGORY

78. IF NOT QUALIFIED, LIST DISQUALIFYING DEFECTS BY ITEM NUMBER

A	B	C	E

79. TYPED OR PRINTED NAME OF PHYSICIAN	SIGNATURE
Mary A. Christmas, LCDR, MC, USN 111-11-1111	Mary A. Christmas
80. TYPED OR PRINTED NAME OF PHYSICIAN	SIGNATURE
81. TYPED OR PRINTED NAME OF DENTIST OR PHYSICIAN (Indicate which)	SIGNATURE
Doe, John P., LT, DC, USNR 333-33-3333	John P. Doe
82. TYPED OR PRINTED NAME OF REVIEWING OFFICER OR APPROVING AUTHORITY	SIGNATURE / NUMBER OF ATTACHED SHEETS

SF 88 (Rev. 3-89) PAGE 2

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☆ U.S. GPO:1993-342-197/81292

Figure 11-2.—Example of completed back side of SF 88.

STANDARD FORM 93
REV. OCTOBER 1974
PRESCRIBED BY GSA/ICMR
FIRMR (41 CFR) 201-45.505

APPROVED
OFFICE OF MANAGEMENT AND BUDGET No. 29-R0191

REPORT OF MEDICAL HISTORY

(THIS INFORMATION IS FOR OFFICIAL AND MEDICALLY-CONFIDENTIAL USE ONLY AND WILL NOT BE RELEASED TO UNAUTHORIZED PERSONS)

1. LAST NAME—FIRST NAME—MIDDLE NAME	2. SOCIAL SECURITY OR IDENTIFICATION NO.
Frost, Jack Ronald	777-77-7777
3. HOME ADDRESS *(No. street or RFD, city or town, State, and ZIP CODE)*	**4. POSITION** *(title, grade, component)*
212 Sandy Lake Drive Pensacola, FL 31189	PR1
5. PURPOSE OF EXAMINATION	**6. DATE OF EXAMINATION**
Periodic	07 Mar 96
7. EXAMINING FACILITY OR EXAMINER, AND ADDRESS *(Include ZIP Code)*	
Branch Medical Clinic NAS Pensacola, FL 32508-7601	

8. STATEMENT OF EXAMINEE'S PRESENT HEALTH AND MEDICATIONS CURRENTLY USED *(Follow by description of past history, if complaint exists)*

I AM IN Excellent HEALTH
I AM TAKING No MEDICATIONS
I HAVE No DRUG ALLERGIES

9. HAVE YOU EVER *(Please check each item)*

YES	NO	(Check each item)
	X	Lived with anyone who had tuberculosis
	X	Coughed up blood
	X	Bled excessively after injury or tooth extraction
	X	Attempted suicide
	X	Been a sleepwalker

10. DO YOU *(Please check each item)*

YES	NO	(Check each item)
X		Wear glasses or contact lenses
X		Have vision in both eyes
	X	Wear a hearing aid
	X	Stutter or stammer habitually
	X	Wear a brace or back support

11. HAVE YOU EVER HAD OR HAVE YOU NOW *(Please check at left of each item)*

YES	NO	DON'T KNOW	(Check each item)	YES	NO	DON'T KNOW	(Check each item)	YES	NO	DON'T KNOW	(Check each item)
	X		Scarlet fever, erysipelas		X		Cramps in your legs		X		"Trick" or locked knee
	X		Rheumatic fever		X		Frequent indigestion		X		Foot trouble
	X		Swollen or painful joints		X		Stomach, liver, or intestinal trouble		X		Neuritis
	X		Frequent or severe headache		X		Gall bladder trouble or gallstones		X		Paralysis (include infantile)
	X		Dizziness or fainting spells		X		Jaundice or hepatitis		X		Epilepsy or fits
	X		Eye trouble		X		Adverse reaction to serum, drug, or medicine		X		Car, train, sea or air sickness
	X		Ear, nose, or throat trouble						X		Frequent trouble sleeping
	X		Hearing loss		X		Broken bones		X		Depression or excessive worry
	X		Chronic or frequent colds		X		Tumor, growth, cyst, cancer		X		Loss of memory or amnesia
	X		Severe tooth or gum trouble		X		Rupture/hernia		X		Nervous trouble of any sort
	X		Sinusitis		X		Piles or rectal disease		X		Periods of unconsciousness
	X		Hay Fever		X		Frequent or painful urination				
	X		Head injury		X		Bed wetting since age 12				
	X		Skin diseases		X		Kidney stone or blood in urine				
	X		Thyroid trouble		X		Sugar or albumin in urine				
	X		Tuberculosis		X		VD—Syphilis, gonorrhea, etc.				
	X		Asthma		X		Recent gain or loss of weight				
	X		Shortness of breath		X		Arthritis, Rheumatism, or Bursitis				
	X		Pain or pressure in chest		X		Bone, joint or other deformity				
	X		Chronic cough		X		Lameness				
	X		Palpitation or pounding heart		X		Loss of finger or toe	**12. FEMALES ONLY: HAVE YOU EVER**			
	X		Heart trouble		X		Painful or "trick" shoulder or elbow				Been treated for a female disorder
	X		High or low blood pressure		X		Recurrent back pain				Had a change in menstrual pattern

13. WHAT IS YOUR USUAL OCCUPATION?
Parachute Rigger

14. ARE YOU *(Check one)*
[X] Right handed [ ] Left handed

93-103

HM3f1103

Figure 11-3.—Example of front side of SF 93.

YES	NO	CHECK EACH ITEM YES OR NO. EVERY ITEM CHECKED YES MUST BE FULLY EXPLAINED IN BLANK SPACE ON RIGHT	
	X	15. Have you been refused employment or been unable to hold a job or stay in school because of: A. Sensitivity to chemicals, dust, sunlight, etc.	
	X	B. Inability to perform certain motions.	
	X	C. Inability to assume certain positions.	
	X	D. Other medical reasons (*If yes, give reasons.*)	
	X	16. Have you ever been treated for a mental condition? (*If yes, specify when, where, and give details.*)	
	X	17. Have you ever been denied life insurance? (*If yes, state reason and give details.*)	
	X	18. Have you had, or have you been advised to have, any operations? (*If yes, describe and give age at which occurred.*)	
	X	19. Have you ever been a patient in any type of hospitals? (*If yes, specify when, where, why, and name of doctor and complete address of hospital.*)	
X		20. Have you ever had any illness or injury other than those already noted? (*If yes, specify when, where, and give details.*)	Had Urinary tract infection April '95.
	X	21. Have you consulted or been treated by clinics, physicians, healers, or other practitioners within the past 5 years for other than minor illnesses? (*If yes, give complete address of doctor, hospital, clinic, and details.*)	
	X	22. Have you ever been rejected for military service because of physical, mental, or other reasons? (*If yes, give date and reason for rejection.*)	
	X	23. Have you ever been discharged from military service because of physical, mental, or other reasons? (*If yes, give date, reason, and type of discharge: whether honorable, other than honorable, for unfitness or unsuitability.*)	
	X	24. Have you ever received, is there pending, or have you applied for pension or compensation for existing disability? (*If yes, specify what kind, granted by whom, and what amount, when, why.*)	

I certify that I have reviewed the foregoing information supplied by me and that it is true and complete to the best of my knowledge.
I authorize any of the doctors, hospitals, or clinics mentioned above to furnish the Government a complete transcript of my medical record for purposes of processing my application for this employment or service.

TYPED OR PRINTED NAME OF EXAMINEE	SIGNATURE
PR1 Jack R. Frost	PR1 Jack R. Frost

NOTE: HAND TO THE DOCTOR OR NURSE, OR IF MAILED MARK ENVELOPE "TO BE OPENED BY MEDICAL OFFICER ONLY."

25. Physician's summary and elaboration of all pertinent data (*Physician shall comment on all positive answers in items 9 through 24. Physician may develop by interview any additional medical history he deems important, and record any significant findings here.*)

#10 Wears eye glasses for correction of refraction errors - NCD

#20 UTI resolved with treatment. - NCD

TYPED OR PRINTED NAME OF PHYSICIAN OR EXAMINER	DATE	SIGNATURE	NUMBER OF ATTACHED SHEETS
Mary A. Christmas,LCDR,MC,USN	07 Mar 96	Lcdr Mary A Christmas	

REVERSE OF STANDARD FORM 93

*U.S. GPO: 1994-300-892/60197

HM3f1104

Figure 11-4.—Example of back side of SF 93.

significant or chronic disorders instead of one-time events of minor illnesses or disorders.

An essential part of a complete physical examination is the review of patient's medical history. The medical examiner is responsible for reviewing items 9 through 24 of the SF 93. After reviewing these items, the medical examiner uses item 25 to elaborate on all "yes" responses (fig. 11-4). Examiners document conditions considered disqualifying as "CD" and those considered not disqualifying as "NCD." Examiner's signature and identification information should be documented at the bottom of the back side of the SF 93.

SPECIAL DUTY MEDICAL ABSTRACT, NAVMED 6150/2

The NAVMED 6150/2, Special Duty Medical Abstract, is a record of physical qualifications, special training, and periodic examinations of members designated to perform special duty, such as aviation, submarine, and diving. When members complete special duty physical examinations and special training, they should have entries made on their NAVMED 6150/2. NAVMED 6150/2 entries require the approval of a medical officer or designated specialty medical service corps officer (i.e., aerospace physiologist for aerospace physiology training).

If a special-duty-qualified service member is found to be physically or mentally unfit, the service member's special duty status will be suspended either temporarily or permanently. The reason(s) for the member's suspension and period of suspension are recorded on the NAVMED 6150/2. Special pay disbursements are often based on a member's physical and mental qualifications or continued requalification for performance in a special duty.

PHYSICAL EXAM TESTING PROCEDURES AND EQUIPMENT

LEARNING OBJECTIVE: *Recall visual acuity, color vision, audiometric, and EKG test equipment and procedures.*

Some of the basic procedures used to gather information for a physical examination are taught in Hospital Corpsman "A" School (e.g., vital signs, venipuncture, and height and weight measurements). However, other tests require advanced technical expertise, such as serological testing, and pressure and oxygen-tolerance testing. Some testing procedures may be learned by on-the-job training (OJT) or by short courses of instruction. These testing procedures and the equipment used will be discussed in this section.

VISUAL ACUITY

Visual acuity testing determines the ability of the eye to discriminate fine detail. It is the most important test of eye function. Throughout the Navy, there are two accepted methods for testing visual acuity: the Snellen chart and Jaeger cards, and the Armed Forces Vision Tester. The Snellen chart and Jaeger cards are used together to test visual acuity. The Snellen charts test distant visual acuity; the Jaeger cards are used to evaluate near visual acuity. The Armed Forces Vision Tester checks both distant and near visual acuity, and assists in evaluating other optical conditions.

The first step in testing for visual acuity is to find out if the patient wears corrective eyewear. On the day of their visual acuity testing, patients should bring in their glasses. Contact lenses are not recommended for use during visual acuity testing. Contact lenses cause an increase in time needed for testing purposes, and they tend to be an inconvenience for both the patient and healthcare provider. Acuity testing is performed with and without the glasses on, and the results are documented in blocks 59 and 61 on the SF 88. Visual acuity requirements are discussed in the MANMED.

Snellen Charts

Probably the most familiar of the visual testing equipment, Snellen charts, are the preferred method for testing distant visual acuity. Snellen charts can test both monocular and binocular visual acuity. Operational guidelines for Snellen charts are provided by the chart's manufacturer. Your local military optometrist or eye clinic can also provide you operational guidelines for Snellen charts. Specific details and current conditions for testing with Snellen charts are as follows:

- If the examinee wears corrective lenses, have them remove the lenses before the examination. Test the examinee first without corrective lenses, and then with the corrective lenses in place.

- Hang the chart on the wall so the 20/20 line is 64 inches from the floor. Direct the examinees to stand 20 feet from the chart. Test each eye

individually, then both eyes together. Do not allow the examinee to squint or tilt his head.

- With the graduation of the size of the letters advocated by Snellen, the visual acuity is expressed according to his classical formula V = d/D, where "d" is the distance at which the letters are read, is divided by "D" the distance at which the letters should be read. Then record the smallest line read on the chart from the 20-foot distance as the vision; e.g., 20/20, 20/200.

Jaeger Cards

When the Armed Forces Vision Tester is not available, Jaeger cards are used to test near vision. There are six paragraphs on each card. Each paragraph is printed in a different size type and labeled as J-1 (the smallest print size), J-2,..., up to J-6.

When testing with these cards, you should hold the card at a distance of 14 to 16 inches from the examinee and tell the examinee to read the paragraphs. Record the visual acuity as the smallest type he can comfortably read and record the distance (e.g., J-2 at 14 inches).

> **NOTE:** The **distance** of the card from the examinee may be converted to centimeters, but ensure the **results** of the test are also recorded in centimeters. Consistency is the key.

Armed Forces Vision Tester

The Armed Forces Vision Tester (AFVT) is a semiportable machine that has the capability to test near and distant visual acuity, horizontal and vertical phorias, and stereopsis (depth perception). It consists of two rotating drums that hold illuminated slides. The handles on the side of the machine rotate the drums to change the slides. A scoring key and instruction manual are provided with the machine.

COLOR VISION TESTING

The *Manual of the Medical Department* requires that all applicants for the naval service receive a color vision test. The Navy has two methods of testing color discrimination: the Farnsworth Lantern Test (FALANT) and the pseudoisochromatic plates (PIP). The FALANT is the preferred test, and in many cases it is the test prescribed by the MANMED as the only acceptable method for testing color vision.

Farnsworth Lantern Test

The purpose of the Farnsworth Lantern Test is to evaluate color perception. The Farnsworth Lantern is a machine with a light source directed at the examinee. What the examinee sees is two lights in a vertical plane. These lights appear in two of three possible colors, either red, green, or white, shown in varying combinations. The examinee is asked to identify the color combinations from top to bottom at a distance of 8 feet; the examiner rotates the drum to provide the different combinations. The examinee must identify a total of nine different combinations.

On the first run of nine lights, if the examinee correctly identifies all nine, the FALANT is passed. If the examinee incorrectly identifies any of the lights, two additional runs of nine lights are performed without interruption. The score is the average number of incorrectly identified lights of the second two runs. If the average score is 1 or less, the FALANT is passed. If the score is 2 or more, the FALANT is failed. If the score is 1.5, the test should be repeated after a 5-minute break. Do not retest scores of 2 or more since this will invalidate the test procedure.

> **NOTE:** If examinees wear corrective lenses for distant vision, they should wear them during this test.

Pseudoisochromatic Plates

If the FALANT is not available, pseudoisochromatic plates (PIP) are used to determine color vision. Personnel so tested must be retested with the FALANT at the first activity they report to that has a Farnsworth Lantern. Two tests are available, the 18-plate test and the 15-plate test, each of which includes one demonstration plate not used for scoring.

When administering the PIP examination, you should hold the plates 30 inches from the examinee. Allow 2 seconds for each plate identification, and do not allow the examinee to touch the plates. To pass the 18-plate test, the examinee must identify a minimum of 14 of the 17 test plates; for the 15-plate test, a minimum of 10 of the 14 test plates. Record the score in block 64 of the SF 88 as PASSED PIP or FAILED PIP. Include the number of correct responses (e.g., PASSED PIP 17 of 17 or FAILED PIP 10 of 17).

AUDIOGRAM

An **audiogram** is a record of hearing thresholds an individual has for various sound frequencies. By

evaluating an individual's frequency thresholds, hearing deficiencies can be detected. To test an individual's frequency thresholds, the technician will use an instrument called an **audiometer** (manual or computerized). Audiometers used by the Navy are calibrated to American National Standards Institute (ANSI) specifications.

Upon entry into the service, a baseline audiogram is performed and recorded on a DD 2215. Subsequent audiometric test results are recorded on a DD 2216 and performed as directed by OPNAVINST 5100.19 and the MANMED. Audiometric testing shall be performed only by personnel who have attended an audiometric training course and have been certified. All audiometric tracings or readings recorded on the SF 88 or other medical documentation should contain the certification number of the person performing the audiometric test.

ELECTROCARDIOGRAM

An **electrocardiogram** is a record of electrical impulses made by the heart. Electrocardiograms are produced by an instrument called an **electrocardiograph**. The electrocardiograph is used to examine and record electrical impulses produced by the contraction of the heart muscle. Abbreviated either EKG or ECG, the electrocardiogram is interpreted by a physician or cardiologist to determine the heart rate and rhythm, and evidence of any heart damage, especially damage associated with a heart attack.

EKGs are currently performed as part of the physical examination once the member reaches the age of 40, and routinely thereafter. Otherwise, EKGs are performed only as clinically indicated or required for special duty. Refer to BUMED instructions for current periodicity information on EKG testing. The Naval Medical Department routinely uses EKGs with 12 leads for physical examinations performed on Navy and Marine Corps personnel.

SUMMARY

A general review has been provided to you on various types of physical examinations, their requirements, and the documentation procedures of commonly used physical examination forms. We have also discussed physical examination testing equipment and procedures that evaluate vision, hearing, and cardiac function.

The physical examination is a key component of the Navy Medical Department's efforts to maintain the health of Sailors and Marines during times of war and peace. The importance of the physical examination cannot be overstated. The combination of medical history, medical testing, and medical examination furnishes the healthcare provider with a complete picture of the individual's health. Any indications of medical problems can be evaluated and managed more expediently and effectively through the use of the physical examination. Your assistance with medical testing and your detailed document management will ensure the patient receives the best possible medical evaluation by the medical examiner. More in-depth information is contained in the *Manual of the Medical Department*, NAVMED P-117.

CHAPTER 12

HEALTH RECORDS

Just as the Personnelman is responsible for the preparation and maintenance of the service record, so you, the Hospital Corpsman, are responsible in the same way for health records. A health record is the official medical history of Navy and Marine Corps personnel and eligible beneficiaries.

The military health record is an individual's chronological record of medical, dental, occupational health evaluations, and treatments. The health record is used by healthcare providers to plan and document patient care treatment. The medical history provided by the health record assists medical personnel who perform physical examinations, physical fitness evaluations, diagnosis decisions, and render care incident to injury or disease.

The health record has significant medicolegal value to the patient, the medical treatment facility (MTF) and dental treatment facility (DTF), the practitioner responsible for the patient, and the U. S. Government. For example, if a military member or eligible beneficiary is injured by a nonmilitary individual (e.g., car accident) and the naval hospital provides medical care, the naval hospital would, in turn, bill the nonmilitary individual or his insurance company (third-party payer) for the medical services it provided the injured military member or beneficiary. To justify the naval hospital's billing, send copies of medical documents from the injured individual's health record pertaining to the injury and subsequent treatment(s) to the third-party payer. Third-party payers depend substantially upon the information recorded in the medical record. Also, various officials and boards (i.e., special duty boards and medical boards) refer to information furnished by the health record in determining physical fitness or physical disability.

The health record provides statistical data for medical research, utilization management, risk management, and quality assurance. For all the reasons mentioned here, accurate and complete record entries and proper medical record maintenance are of the utmost importance.

This chapter will discuss the requirements for opening, maintaining, verifying, and closing active duty and reserve personnel health records. Use of medical forms and form filing procedures will also be covered. For further details and up-to-date guidelines on health record management, as well as differences between medical records established by deployable units or under combat conditions, refer to chapter 16 of the *Manual of the Medical Department* (MANMED) and pertinent instructions or notices.

PRIMARY AND SECONDARY MEDICAL RECORDS

LEARNING OBJECTIVE: *Identify the various types of primary and secondary medical records, and recall the usage of each type.*

Primary medical records are the original records established to document the continuation of care to service members (active and retired) and their beneficiaries. Secondary medical records are established by a patient's healthcare provider and contain specific medical information needed by that healthcare provider. Secondary medical records are maintained separate from the primary medical record.

PRIMARY MEDICAL RECORDS

Three major categories of primary medical records are health records (HRECs), outpatient records (ORECs), and inpatient records (IRECs). Dental records (DRECs) are part of HRECs and ORECs.

Health Record

The HREC is a file of continuous care given to **active duty members** and documents all their outpatient care. While the HREC primarily documents ambulatory (outpatient) care, copies of inpatient narrative summaries and operative reports are also placed in the HREC to provide continuity of healthcare documentation.

Outpatient Record

The OREC is a file of continuous care that documents ambulatory treatment received by a person other than an active duty person.

Inpatient Record

The IREC is a medical file that documents care provided to a patient (inpatient) assigned to a designated inpatient bed in an MTF or ship.

SECONDARY MEDICAL RECORDS

Secondary medical records are separate from the primary medical record and must follow the guidelines established by the MANMED and the local medical records committee. These records are kept in a separate file secured in a specialty clinic or department of fixed MTFs (e.g., naval hospitals and branch medical clinics). The secondary medical records include convenience records, temporary records, and ancillary records.

Because primary healthcare providers of active duty personnel must be aware of their crew's medical status at all times, temporary and ancillary records will not be opened or maintained for active duty personnel. The exceptions to this policy are records for obstetrics/gynecology (OB/GYN), family advocacy, and psychology and psychiatry clinical records.

The healthcare provider creating a secondary medical record should write a note stating the nature of the secondary record, the patient's diagnosis, and the clinic or department name, address, and telephone number on the NAVMED 6150/20, *Summary of Care*, of the patient's primary medical record. The healthcare provider should make a second note entry on the NAVMED 6150/20 when the secondary record is closed.

Convenience Record

A convenience record contains excerpts from a patient's primary record and is kept within the MTF by a treating clinic, service, department, or individual provider for increased access to the information. When the convenience record's purpose has been served, the establishing clinic, service, department, or provider purges the record from its file, compares it to the primary medical record, and adds any medical documents that are not already in the primary medical record.

Temporary Record

A temporary record is an original medical record established and retained in a specialty clinic, service, or department in addition to the patient's primary medical record. Its purpose is to document a current course of treatment. The temporary medical record becomes a part of the primary medical record when the course of treatment is concluded. This record is most commonly established in OB/GYN for a prenatal patient.

Ancillary Record

Ancillary records consist of original healthcare documentation withheld from a patient's primary HREC or OREC. In certain cases it may be advisable to not file original treatment information in the primary treatment record, but instead place this information into a secondary medical record, to which the patient, parent, or guardian has limited access. Examples of such instances include information that is potentially injurious to the patient, or information that requires extraordinary degrees of protection (such as psychiatric treatment or instances of real or suspected child or spouse abuse, etc).

THE MEDICAL RECORD

LEARNING OBJECTIVE: *Recall custody guidelines for medical records.*

All medical records are the property of the U.S. Government and must be maintained by MTFs (naval hospitals, medical clinics, and medical departments of ships, submarines, aviation squadrons, and isolated duty locations) that have primary cognizance over the care of the patient. Medical records are of continuing long-term interest to the government and the patient and must be maintained within an MTF. Patients may not retain original HRECs, ORECs, or dental records. Hand-carrying medical records by unauthorized individuals (e.g., spouses or siblings of the patient) without written permission is prohibited.

HEALTH RECORD CUSTODY

The HREC is retained in the custody of the medical officer on the ship, submarine, or aviation squadron to which the member is assigned. For those ships, submarines, and aviation squadrons that do not have medical officers, the health record may be placed in the custody of the medical department representative (MDR) at the discretion of the commanding officer (CO). Examples of MDRs are Independent Duty Corpsman or Squadron Corpsman. When Medical

Department personnel are not assigned, the CO may assign custody of the health records to the local representatives of the Medical Department who generally furnish medical support. The custody of health record by an individual is not permitted.

Health records are subject to inspection at any time by the commanding officer, superiors in the chain of command, the fleet medical officer, or other authorized inspectors. The health record is for official use only, and adequate security and custodial care are required.

There are many methods of providing adequate security and custodial control of health records. In general, health records should be stored in such a manner as to be inaccessible to the crew or general public. No records or record pages should be left unattended. This precaution also helps to prevent loss or misplacement of records.

Medical Department personnel will maintain a *Health Records Receipt, File Chargeout, and Disposition Record*, NAVMED 6150/7, for each health record in their custody. The completed charge out form should be retained in the file until the record is returned.

Medical officers or MDRs are responsible for the completeness of required health record entries while the record remains in their custody.

CROSS-SERVICING HEALTH RECORDS

The HREC of a Navy or Marine Corps member is normally serviced by personnel of the Medical Department of the Navy. However, if a Navy or Marine Corps member is performing an assignment with the Army or the Air Force, the health record may be serviced by Army or Air Force Medical Department personnel. This management of the health record may be done if the attendant service interposes no objection and considers the procedure feasible. Reciprocal procedures for servicing the health records of Army or Air Force personnel by personnel of the Medical Department of the Navy will be maintained whenever feasible, and if requested by authorized representatives of those services.

DEALING WITH LOST, DESTROYED, OR ILLEGIBLE HEALTH RECORDS

When a HREC is lost or destroyed, the HREC custodian will open a replacement health record. The designation "REPLACEMENT" will be prominently entered on the jacket and all forms replaced. A brief explanation of the circumstances requiring the replacement and the date accomplished should be entered on SF 600, *Chronological Record of Medical Care*. If the missing record is subsequently recovered, the information or entries in the replacement record will be inserted in the original record.

The HREC or any part of it should be duplicated whenever it becomes illegible or deteriorates to the point that it may endanger its future use or value as a permanent record. The duplicate record or duplicate portion must reproduce as closely to the original as possible. Pay particular attention to detail when you transcribe this information. When you duplicate an entire health record, place the designation "DUPLICATE RECORD" prominently on the front of the jacket above the wording OUTPATIENT MEDICAL RECORD.

When you duplicate only part of the record, identify the individual forms by printing "DUPLICATE" at the bottom of each form. Enter the circumstances necessitating the duplication and the date accomplished on an SF 600. Microfiche all forms replaced for protection and preservation, and make the envelope a permanent part of the medical record. On front of the envelope, record the member's full name, FMP (family member prefix) and SSN, date of birth, and list the original forms contained in the envelope.

If microfilming is not available to the MTF, place the original health forms (except forms contaminated with mold or mildew) inside a plain envelope for preservation and make them part of the permanent record. On the front of the envelope, record the member's identifying data (same as microfiche envelope) and list the contents of the envelope. Mark the envelope "ORIGINAL MEDICAL RECORDS —PERMANENT" and file as the bottommost item in part 2 of the 4-part health record jacket.

DISPOSING OF HEALTH RECORDS DURING HOSPITALIZATION

When a patient is transferred to an MTF, the HREC should accompany the patient. If members are admitted to a military hospital while away from their command, their HRECs should be forwarded as soon as possible to the hospital. If a discharged member is directed to proceed home and await final action on the recommended findings of a physical evaluation board, an entry to this effect should be recorded in the HREC.

If a member is admitted to a civilian hospital for treatment involving brief periods of hospitalization,

the HREC should be retained by the activity until disposition is completed. The HREC will then be forwarded to the cognizant office of medical affairs or to the activity designated by the Commandant of the Marine Corps (CMC) for Marine Corps members. In instances where the parent activity retains the HREC, a summary of the hospitalization will be entered on an SF 600 when the member returns to duty.

When a member is hospitalized at a medical facility of a foreign nation, an entry of this fact should be made in the HREC. The HREC should be retained on board and continued until the patient either returns to duty or is transferred to another U.S. Navy vessel or U.S. military activity. Upon departure of the vessel from the port, the HREC should be delivered to the commanding officer for inclusion in the member's service record for forwarding to the nearest U.S. embassy or consulate.

SECURITY AND SAFEKEEPING OF MEDICAL RECORDS

LEARNING OBJECTIVE: *Recall security and safekeeping procedures for medical records.*

Each MTF or medical department develops policies to ensure that medical records are secure and a patient's privacy is protected. Security and safekeeping are major concerns and responsibilities of staff handling medical records. The medical record contains information that is personal to patients, treated as privileged information, and protected by the **Privacy Act of 1974**. The Privacy Act of 1974 protects a patient's right to privacy in respect to personal medical information. The Privacy Act permits only the patients and their legal representatives to obtain this information.

Medical facilities or departments should take precautions to avoid compromise of medical information during the movement and storage of medical records. Medical records should be handled by only authorized medical service personnel. Records should be stored in a locked area, room, or file to ensure safekeeping, unless there is a 24-hour watch in the records room. Refer to the MANMED for more detailed guidelines on medical record security and safekeeping.

RELEASING MEDICAL INFORMATION

LEARNING OBJECTIVE: *Recognize guidelines for releasing medical information.*

The Surgeon General (also titled Director, Naval Medicine) is the official responsible for administering and supervising the execution of SECNAVINST 5211.5, Department of the Navy Privacy Act Program (PAP), as it pertains to the Health Care Treatment Record System. Additionally, the Office of the Surgeon General authorizes requests for access and amendment to naval members' medical and dental records.

Commanding officers of Navy MTFs are designated as local systems managers for medical records maintained and serviced within their activities. Local systems managers are authorized to release information from health records located within the command if proper credentials have been established. The requesting office or individual will be advised that such information is private and must be treated with confidentiality. In all cases where information is disclosed, an entry must be made on OPNAV Form 5211/9, *Record of Disclosure-Privacy Act of 1974*, and should include the date, nature and purpose of the disclosure, and the name and address of the person or agency receiving the information. Maintain a copy of any such disclosure requests.

GUIDELINES FOR RELEASING MEDICAL INFORMATION

In the following paragraphs, we cover the policy for release of record transcripts. As will be noted, the appropriate rule for release to be implemented depends upon the intended recipient of the record transcript.

1. **Release to the Public**. Information contained in medical records of individuals who have undergone medical or dental examination or treatment is personal to the individual and considered private and privileged in nature. Consequently, disclosure of such information to the public would constitute an unwarranted invasion of personal privacy. Such information is exempt from release under the **Freedom of Information Act**.

However, MTF commanding officers may release some information to the public or the press without the patient's or patient's next of kin's (NOK) consent. This

information is the patient's name; grade or rate; date of admission or disposition; age; sex; component, base, station, or organization; and general condition.

2. **Release to the Individual Concerned**. Release of healthcare information to the individual concerned (patient) falls within the purview of the Privacy Act and not the Freedom of Information Act. When individuals request information from their medical record, it will be released to them unless, in the opinion of the releasing authority, it might prove injurious to their physical or mental health. In such an event, the releasing authority will request authorization from the patients to send their medical information to their personal physician.

3. **Release to Representatives of the Individual Concerned.** Upon the written request from patients, healthcare information will be released to their authorized representatives. If an individual is mentally incompetent, insane, or deceased, the NOK or legal representative must authorize the release in writing. NOK or legal representatives must submit adequate proof that the member or former member has been declared mentally incompetent or insane, or furnish adequate proof of death if such information is not on file. Legal representatives must also provide proof of appointment, such as a certified copy of a court order.

4. **Release to Other Government Departments and Agencies.** When requested, healthcare information will be released to other government departments. These government departments and agencies must have a legitimate need for the information as listed in the "Routine Uses" section of the Medical Treatment Records System, which is annually set forth in SECNAVNOTE 5211, *Systems of Personal Records Authorized for Maintenance Under the Privacy Act of 1974*, 5 USC 552a (PL 93-579).

If the releasing authority is in doubt whether the requesting department has a legitimate need for the information, it will ask the requesting department to specify the purpose for which the information will be used. In some cases, the requesting department should be advised that the information will be withheld until the written consent of the individual concerned is obtained.

RELEASING MEDICAL INFORMATION TO FEDERAL AND STATE AGENCIES

In honoring proper requests, the releasing authority should disclose only information relative to the request. In the following three instances, for example, departments and agencies, both federal and state, may have a legitimate need for the information:

1. Health care information is required to process a governmental action involving an individual. (The Veterans Administration and the Bureau of Employees' Compensation process claims in which the claimant's medical or dental history is relevant). If an agency requests health care information solely for employment purposes, a written authorization is required from the individual concerned.

2. Health care information is required to treat an individual in the department's custody. (Federal and state hospitals and prisons may need the medical or dental history of their patients and inmates.)

3. Release to federal or state courts or other administrative bodies. The preceding limitations are not intended to prevent compliance with lawful court orders for health records in connection with civil litigation or criminal proceedings, or to prevent release of information from health records when required by law. If you have doubts about the validity of record requests, ask the Judge Advocate General (JAG) for guidance.

RELEASING MEDICAL INFORMATION FOR RESEARCH

Commanding officers of MTFs are authorized to release information from medical records located within the command to members of their staff who are conducting research projects. Where possible, the names of parties should be deleted. Other requests from research groups should be forwarded to Bureau of Medicine and Surgery (BUMED) for guidance.

FILING HEALTH RECORDS

LEARNING OBJECTIVE: *Recall filing procedures for health records.*

The Navy Medical Department uses the Terminal Digit Filing System (TDFS) to file health records. In this system, health records are filed according to the terminal digits (last two numbers) of the service member's social security number (SSN), color coding of the health record jacket, and use of a block filing system.

To understand the TDFS filing system, you will need to view the SSN in a different way. As you know,

the nine digits of the SSN are divided into three number groups for ease in reading. This practice reduces the chance of transposing numbers. For example, in the TDFS system the SSN 123-45-6789 is visually grouped and read from right to left (instead of left to right), as follows:

Primary Group	Secondary Group	Third Group
89	67	123-45

On the health record, the family member prefix (FMP) is added to the patient's social security number. The FMP is a system used by the Navy to show a beneficiary's relationship to the sponsor. For instance, the FMP for active duty personnel is 20, while the FMP for a spouse is 30 (fig. 12-1).

Under the Terminal Digit Filing System, the central files are divided into 100 approximately equal sections. Each section is identified by a maximum of 100 file guides bearing the 100 primary numbers, **00** consecutively through **99**. Each of these 100 sections contain records whose terminal digits correspond to the section's **primary number** (fig. 12-1). For example, every record with the SSN ending in 56 is filed in section 56.

Within each of these 100 sections, health records are filed in numerical sequence according to their secondary numbers. The **secondary number** is the pair of digits immediately left of the primary number (fig. 12-1).

To make filing of health records easier, health record jackets are color-coded. The second to the last digit of the SSN is preprinted on the jacket. The color of the health record jacket corresponds to the preprinted digit as follows:

Preprinted Digit	Jacket Color
0	Orange
1	Green
2	Yellow
3	Gray
4	Tan
5	Blue
6	White
7	Almond
8	Pink
9	Red

Centralized files having records based upon more than 200 SSNs, or a file of more than 200 records, may need to use the TERTIARY (third) NUMBER in filing. In a properly developed and maintained terminal-digit, color-coded and block-filing system, it is almost impossible to misfile a record. A record misfiled with respect to the left digit of its primary number (for example, a **45** that has been inserted among the **55**s) will attract attention because of its different record jacket color. A record jacket misfiled in respect to the right primary number (for example, a **45** that has been inserted among the **42**s) causes a break in the diagonal pattern formed by the blocking within a color group.

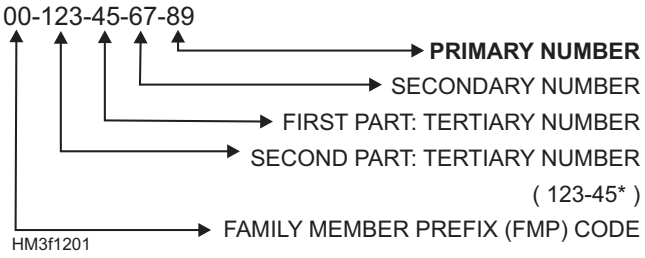

Figure 12-1.—Example of social security number grouping and family member prefix.

Authorized exemptions from the requirements of the TDFS are discussed in detail in the MANMED.

OPENING HEALTH RECORDS

LEARNING OBJECTIVE: *Determine when a health record should be opened, and select the appropriate record jacket and sequence of medical forms to be placed within a new record.*

This section will discuss the opening of active duty HRECs. HRECs are opened when an individual becomes a member of the Navy and Marine Corps, when a member on the retired list is returned to active duty, or when the original record has been lost or destroyed.

When establishing the four-part health record, the appropriate military health record jacket and required forms must be current and assembled in accordance with current directives.

OPENING HEALTH RECORDS FOR ACTIVE DUTY OFFICERS

Recruiting offices open HRECs for civilian applicants who are accepted for an officer

appointment. The health record is then forwarded to the new officer's first duty station.

Midshipmen or former enlisted members appointed to commissioned officer or warrant officer grade continue to use their existing HREC. The MTF having custody of the record at the time of acceptance of appointment will make necessary entries to indicate the new grade and the designator or MOS. Also, the record custodian should prepare summary information entries on SF 600 and NAVMED 6150/4 to include date, place, and grade to which the member was appointed.

Health records of civilian candidates selected for appointment to the Naval Academy should be prepared at the Naval Academy at the time of appointment. Health records for civilian applicants selected for officer candidate programs should be opened upon enrollment in the program.

OPENING HEALTH RECORDS FOR ACTIVE DUTY ENLISTED PERSONNEL

The HREC is opened by the activity executing the enlistment contract upon original enlistment in the Navy or Marine Corps. An exception to this rule involves service members who are enlisted or inducted and ordered to immediate active duty at a recruit training facility. In this instance, the HREC will be opened by either the Naval Training Center (NTC) or Marine Corps Recruit Depot, as appropriate. Copies of the service member's SF 88, *Report of Medical Examination*, and SF 93, *Report of Medical History,* are sent to the appropriate NTC or recruit depot, and added to other applicable HREC forms in the member's HREC.

OPENING HEALTH RECORDS FOR RESERVISTS

The Naval Reserve Personnel Center (NRPC), New Orleans, is the HREC custodian for inactive reserve personnel. In addition, NRPC is responsible for the records' preparation and maintenance. When inactive reservists are called to active duty and their HRECs have not been received by their duty station, a request for their records should be initiated. Requests for Navy personnel are sent to NRPC. Marine Corps personnel requests are sent to the **Marine Corps Reserve Support Center**. For Navy and Marine Corps service members who were discharged before 31 January 1994, requests should be sent to the **National Personnel Records Center** (NPRC) for record retrieval. For service members who were discharged after 31 January 1994, requests for record retrieval are sent to the **Department of Veterans Affairs** (DVA). Addresses of each of these activities are listed in the MANMED.

PREPARING THE HEALTH RECORD JACKET

A new **military health record jacket**, NAVMED 6150/20-29, should be prepared when an HREC is opened or when the existing jacket has been damaged or is deteriorating to the point of illegibility. The old jacket should be destroyed following replacement.

Preparing the Outside Front Cover and Inside Back Cover

A **felt-tip or indelible black-ink pen** should be used to record all identifying data, except in the "Pencil Entries" block on the upper left of the outer front cover of the HREC. As indicated, information in this block should be written in pencil, so it can be updated or changed. Figure 12-2 illustrates the completed outside front cover and inside back cover of a military health record jacket.

RECORD NUMBERING.—Each health record jacket has the second to the last digit of the SSN preprinted on it. The preprinted digit also matches the last digit of the form number (e.g., the preprinted digit on NAVMED 6150/26 is 6). The color of the treatment record jacket corresponds to the preprinted digit. In preparing a member's treatment record jacket, select a prenumbered NAVMED 6150/20-29 jacket by matching the second to the last number of the member's SSN.

SOCIAL SECURITY NUMBER.—Enter the rest of the member's SSN on the top of the inside back cover. For members who do not have an SSN (e.g., foreign military personnel), use NAVMED 6150/29 as the treatment record jacket. A "substitute" SSN should be created for these members by assigning the numbers "9999" as the last four digits of the SSN and assigning the first five digits in number sequence (e.g., first SSN 000-01-9999, the second SSN 000-02-9999). Place a piece of **black** cellophane tape over the number that corresponds to the last digit of the SSN in each of the two number scales on the inside back cover of the HREC (fig. 12-2).

FAMILY MEMBER PREFIX.—Enter the member's family member prefix (FMP) code in the two diamonds preceding the SSN on the top of the

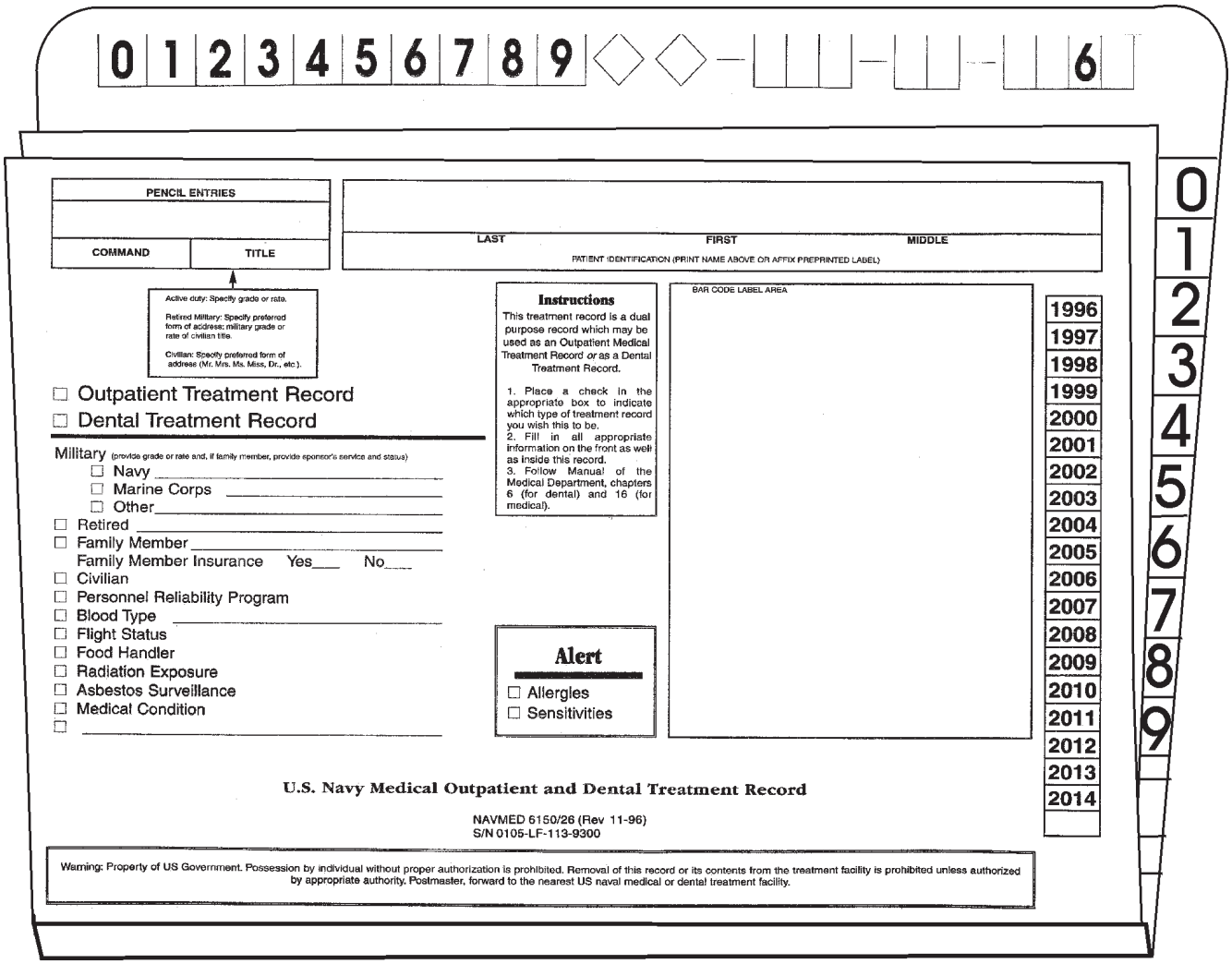

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Figure 12-2.—Sample of completed outside front cover and inside back cover of a health record jacket (NAVMED 6150/26.)

inside back cover. Enter the FMP code of 20 for all Navy and Marine Corps members. Enter an FMP code of 00 for all foreign military personnel.

PATIENT'S NAME.—Enter the member's full name (last, first, middle initial, in that order) in the upper-right corner. Indicate no middle name by the abbreviation "NMN." If the member uses initials instead of first or middle names, show this by enclosing the initials in quotation marks (e.g., "J" "C"). Indicate titles, such as JR, SR, and III, at the end of the name. The name may be handwritten on the line provided or imprinted on a self-adhesive label and attached to the jacket in the patient identification box.

ALERT BOX—In the lower center area of the outside front cover, indicate in the alert box whether the member has drug sensitivities or allergies by entering an "X" in the appropriate box. If there are no allergies or sensitivities, leave it blank.

RECORD CATEGORY.—Indicate the appropriate record category by entering an "X" in the box marked "Health Record" on the outside front cover, just below the "Pencil Entries" block. Then attach ½- inch **red** tape to the record category block on the right edge of the inside back cover of the jacket; this indicates it's an active duty record.

PATIENT SERVICE AND STATUS.—Below the record category box is the patient service and status box. Mark an "X" in the appropriate service block.

SPECIAL CATEGORIES OF RECORDS.—Identify the records of personnel assigned to special duty or medical surveillance programs (e.g., personnel reliability program, flight status, or the Asbestos Medical Surveillance Program) by marking an "X" at the appropriate special category entry listed below the record category type.

Identify flag officers and general officers by stamping or printing "FLAG OFFICER" or

"GENERAL OFFICER," as appropriate, on the lower portion of the patient identification box. If a patient identification label is used, print or stamp the appropriate identification below the label.

PENCIL ENTRIES.—Following the instructions on the front cover, pencil in the appropriate title (i.e., grade or rate, if on active duty; preferred form of address, if retired or civilian), and include the current command (if active duty).

RECORD RETIREMENT TAPE BOX.—Leave the record retirement tape box on the inside back cover blank.

BAR CODE.—Some Navy medical facilities have bar coding capabilities. The bar code label indicates the patient's FMP, SSN, record type, and record volume number. Affix the label to the front of the record jacket in the box right of the alert box. If the bar code is part of the patient identification label (such as the patient identification label produced by the Composite Health Care System (CHCS) computers), place this label in the patient identification box.

LABELS.—Use of a self-adhesive label with the name of the MTF, ship, or other units having custodial responsibility for the record is optional. Ship or MTF logos are permitted as long as the necessary patient identifying information is not obscured. For further details see the appropriate MANMED article covering this subject.

Preparing the Inside Front Cover

Enter the following information in pencil on the inside front cover of the HREC jacket. Record the information in the inside of the front cover in pencil to permit changes and updating.

- Date of arrival
- Projected departure date
- Home address and telephone number
- Duty station and telephone number

Preparing the Middle Section

The middle section of the HREC contains a preprinted DD 2005, *Privacy Act Statement—Health Care Records*, on the front side. When opening an HREC, the service members are asked to read the Privacy Act Statement. After the members have read the statement, they will need to sign, date, and include their SSN at the bottom of the form. Signing this statement indicates the service members understand their right to confidentiality in regard to the medical documentation placed in their HREC.

On the reverse of the middle section is a Disclosure Accounting Record. This form should be annotated whenever the HREC is released to any individual or agency outside the MTF.

SEQUENCE OF HEALTH RECORD FORMS

When assembling an HREC, you should arrange the forms in chronological order by date. The most current document should be placed on top, and the least current documents below it. The HREC contains dividers that partition the record into four parts. A sequential listing of medical forms to be filed in each section is provided in table 12-1. The titles for each part of the HREC are as follows:

Part 1. Record of Preventive Medicine and Occupational Health

Part 2. Record of Medical Care and Treatment

Part 3. Physical Qualifications

Part 4. Record of Ancillary Studies, Inpatient Care, and Miscellaneous Forms

HEALTH RECORD FORMS

LEARNING OBJECTIVE: *Recall the purpose and completion procedures for the health record forms discussed in this section.*

In the last section, you learned there are many medical forms placed in the health record. Also, you learned each form has a specific location within the record. The methods for the management of major areas of health care, both ashore and afloat, are rapidly changing. The Composite Health Care System (CHCS), a secure, computer-based system, is now the primary means that healthcare practitioners use to schedule and process patient visits, track medical results, order labs and x-rays, and process orders for medications. CHCS is especially valuable for pier-side healthcare providers and furnishes a much higher standard for patient care.

Computerized medical documentation (e.g., laboratory test results, emergency room reports, etc.)

Table 12-1.—Sequential List of Health Record Forms

LEFT SIDE OF HREC FOLDER (Top to bottom with most current entry on top within group of forms)	RIGHT SIDE OF HREC FOLDER (Top to bottom with most current entry on top within group of forms)
Left Side - Part 1: Record of Preventive Medicine & Occupational Health	***Left Side - Part 3: Physical Qualifications, Administrative Forms***
NAVMED 6150/20, Summary of Care Form *[Always on top.]*	NAVMED 1300/1, Medical & Dental Overseas Screening Review for Active Duty & Dependents
SF 601, Immunization Record	NAVPERS 1300/16, Report of Suitability for Overseas Assignment - Parts I, II, and III
NAVMED 6000/2, Chronological Record of HIV Testing	NAVMED 6100/1, Medical Board Report Cover Sheet
DD 771, Eyewear Prescription	NAVMED 6100/2, Medical Board Statement of Patient
NAVMED 6490/1, Visual Record	NAVMED 6100/3, Medical Board Certificate
NAVMED 6470/10, Record of Occupational Exposure to Ionizing Radiation	NAVMED 6100/5, Abbreviated Temporary Limited Duty
NAVMED 6470/11, Record of Exposure to Ionizing Radiation from Internally Deposited Radionuclides *[Interfile behind 6470/10 with corresponding dosimetry issue period.]*	DD 2569, Third Party Collection Program *[See BUMEDINST 7000.7 series for additional guidance.]*
DD 2215, Reference Audiogram	SF 2824C, Physicians Statement for Employee Disability Retirement
DD 2216, Hearing Conservation Data	SF 47, Physical Fitness Inquiry For Motor Vehicle Operators
NAVMED 6224/1, TB Contact/Converter Follow-up	SF 78, Certificate of Medical Examination
NAVMED 6260/5, Asbestos Medical Surveillance Program	DD 2005, Privacy Act Statement
DD 2493-1, Abestos Exposure-Part 1, Initial Medical Questionnaire *[Attach to correspondence NAVMED 6260/5.]*	***Right Side, Part 4, Record of Ancillary Studies, Therapies, etc.***
DD 2493-2, Abestos Exposure-Part II, Periodic Medical Questionnaire	SF 217, Medical Report-Epilepsy
OPNAV 5100/15, Medical Surveillance Questionnaire	SF 88, Report of Medical Examination
Other 5100 Forms-Occupational Health Series Forms	SF 93, Report of Medical History *[File behind corresponding SF 88 or SF 78.]*
Right Side - Part 2, Section A: Record of Medical Care and Treatment	BUMED Waiver Letters with BUPERS Endorsement
NAVPERS 5510/1, Record Identifier for personnel Reliability Program (PRP) *[Always top form, except for deaths.] [File all forms below in chronological order with most current form on top, regardless of form number. Be sure to group episodes of care together.]*	NAVMED 6120/1, Competence for Duty Examination
SF 558, Medical Record Emergency Care and Treatment Record of Ambulance Care	NAVMED 6120/2, Officer Physical Examination Special Questionnaire *[File in place of SF 93 when used.]*
SF 600 HREC-Chronological Record of Medical Care *[If for outpatient surgery, dictate or document immediately after surgery and file with corresponding SF 516. Otherwise file as exhibited here.]*	NAVMED 6120/3, Annual Certificate of Physical Condition
SF 513, Medical Record Consultation Sheet	NAVMED 6150/2, Special Duty Medical Abstract
DD 2161, Referral For Civilian Medical Care	NAVMED 6150/4, Abstract of Service and Medical History
Top Forms in Part 2, Section A When a Patient is Deceased	NAVJAG 5800/10, Injury Report
Attestation Sheet	NAVJAG Report - Investigation to inquire into the circumstances surrounding the injury of (servicemember).
DD 2064, Certificate of Death	NAVPERS 1754/1, Exceptional Family Member (EFM) Program Application
SF 503, Autopsy Protocol	Living Will or Medical Power of Attorney
SF 523, Authorization for Autopsy	OPNAV 5211/9, Record of Disclosure, Privacy Act of 1974
SF 523A, Disposition of Body	DD 877, Request for Medical/Dental Records
SF 523B, Authorization For Tissue Donation	SF 515, Medical Record Tissue Examination
Right Side - Part 2, Section B: Inpatient Care, Ambulatory Surgeries, etc.	SF 519A, Radiographic Consultation Request/Report
NAVMED 6300/5, Inpatient Admission/Disposition Record (Copy)	SF 519B, Medical Record-Radiologic Consultation Request/Report
SF 502, Medical Record, Narrative Summary (Copy)	SF 519, Medical Record-Radiographic
SF 539, Medical Record-Abbreviated Medical Record (Copy)	SF 518, Medical Record-Blood or Blood Component Transfusion
SF 509, Progress Notes	SF 520, Medical Record-Electrocardiogram Request
SF 516 Medical Record-Operation Report (Original for Outpatient Surgery) *[Dictate/document immediately after surgery.]*	SF 524, Radiation Therapy
SF 600 HREC-Chronolgocial Record of Medical Care *[Outpatient Surgery: To be dictated immediately after surgery] [File with corresponding SF 516.]*	SF 525, Radiation Therapy Summary
SF 517, Anesthesia	SF 526, Medical Record-Interstitial/Intercavity Therapy
SF 522, Request for Administration of Anesthesia *[File with corresponding SF 517.]*	SF 527, Group Muscle Strength, Join ROM, Girth and Length Measurements
SF 533 Medical Record-Prenatal and Pregnancy (Only for patients not admitted for delivery)	SF 528, Medical Record-Muscle Function By Nerve Distribution: Face, Neck and Upper Extremity
Civilian Medical Care Notes	SF 529, Medical Record-Muscle Function by Nerve Distribution: Trunk and Lower Extremity
DD 602, Patient Evacuation Tag *[Staple to current SF 600.]*	SF 530, Neurological Examination
	SF 531, Anatomical Figure *[May also be filed under a corresponding SF 600, SF 513, etc.]*
	SF 541, Medical Record Gynecologic Cytology
	SF 545, Laboratory Report Display
	SF 546 - 557, Laboratory Reports. *[Attach through to SF 545 in chronological order.]*
	SF 559, Medical Record-Allergen Extract Prescription New and Refill
	SF 560, Medical Record-Electroencephalogram Request and History
	SF 511, Vital Signs Record
	SF 512, Plotting Chart
	SF 512A, Plotting Chart Blood Pressure

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has become commonplace. However, the Navy Medical Department continues to use many government printed forms (e.g., NAVMED, DD, and SF). This section will cover selected (government-printed) medical forms, their purpose, and procedures for completing them.

Healthcare providers should enter their signature and identification data in the HREC in black or blue-black ink. Type, print, or stamp provider's name, grade or rating, and social security number below their signature. Stamped facsimile signatures are NOT to be used on any medical form in the HREC. The signing individual assumes responsibility for the correctness of the entry for which they sign.

All medical forms require an accurate and complete documentation of patient identification data. Patient identification data on medical documentation is critical. Complete and accurate documentation of patient identification data helps to ensure the documents are placed in the correct patient's record. Three methods are currently used to place patient identification on medical documents:

- embossed medical card,
- automated forms, and
- handwritten entries.

Embossed medical cards are used to imprint patient identification data on medical forms. Printouts of automated (computerized) forms should provide the information listed in table 12-1. Handwritten patient identification data should be entered in spaces at the bottom of the form. Each method should contain, at a minimum, the patient identification data listed in table 12-2.

Table 12-2.—Patient Identification Data

Item #	Patient Identification Data
1	Full name (last, first, middle)
2	FMP + SSN
3	Date of birth (YY-MM-DD)
4	Sex of patient (M or F)
5	Sponsor (self)
6	Sponsor's Agency or military service (USN, USMC, USCG,...)
7	Patient's paygrade (e.g., E7, O2)
8	MTF maintaining record (e.g., NH Pensacola, etc.)

SUMMARY OF CARE (NAVMED 6150/20)

The Summary of Care (fig. 12-3) contains a summation of relevant problems and medications that significantly affect the patient's health status. Properly maintained, the Summary of Care form aids healthcare providers by allowing them quick access to pertinent medical factors that may affect how they manage a patient's medical care. This form is a permanent part of the HREC.

Entries on the NAVMED 6150/20 should include significant medical and surgical conditions, allergies, untoward reactions to medication, and medications currently using or recently used. The Summary of Care form should be reviewed, and, if necessary, revised during the patient's visit. The NAVMED 6150/20 should also be reviewed during yearly verification and before HREC transfers.

The Summary of Care form is divided into five sections: significant health problems, hospitalization/surgery, medical alert, medications, and health maintenance.

- **Significant health problems section:** Enter only significant medical conditions in this section. Significant medical conditions include chronic diseases (such as hypertension, diabetes, arthritis, etc.) and acute recurrent illnesses (such as recurrent urinary tract infections, recurrent otitis media, recurrent bronchitis, etc.)

- **Hospitalization/surgery section:** Enter significant surgical conditions. Include all procedures requiring general or regional anesthesia and any procedures likely to have a long-term effect on the patient's health status.

- **Medical alert section:** Note any allergies and significant reactions to drugs in the medical alert section. Record also in this section relevant alcohol and tobacco use.

- **Medications section:** Record all currently or recently used medications.

- **Medical maintenance section:** This section of the NAVMED 6150/20 contains a variety of medical information. It contains health maintenance functions, such as mammograms, chest X-rays, EKGs, and pap smears. Enter the date of the health maintenance functions in pencil, so it can be updated. Include in this section occupational health surveillance activities, such

File as top page on left side of folder

Summary of Care

(This form is subject to the Privacy Act of 1974)

No.	Significant Health Problem	Date
1.	Right Thyroid Nodule	19Aug95
2.	Influenza	30Jan97
3.	Urinary Tract Infecton	16Nov99
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
	Exceptional Family Member Program	

Medical Alert *(SBE Prophylaxis, allergies, other)*

Aspirin

Alcohol:

Tobacco:

Medications	Start	Stop
Tylenol (PRN)	30Jan97	
Ciprofloxacin 250mg BID	16Nov99	25Nov99
Pyridium 200mg TID	16Nov99	18Nov99

	Hospitalization/Surgery	Date
1.	Tonsillectomy	1974
2.	Wisdom Teeth extracted X 4	23Mar96
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.	Advance Directive Provided:	
11.	Advance Directive Returned:	
12.		

Health Maintenance	Date of Last Test (*Pencil entry*)
Prostate Exam	N/A
RPR	06 Feb 98
G6PD / GPAB	06 Feb 98
Stool GUAIAC	06 Feb 98
Mammogram	
Chest X-Ray	
ECG	06 Feb 98
Birth Control Method	
PAP Smear	06 Feb 98
Sickle Cell Trait	06 Feb 98
HIV Screen	06 Feb 98
Other	

(Continue significant health problems, medications, hospitalization/surgery on reverse)

Space for Mechanical Imprint

Patient's Name: Frost, Jane O.	Rank/Grade: HMCS	Sex: Female
SSN/Identification Number: 20-123-45-6789	Status: Active Duty	Date of Birth: 02Dec69
Branch of Service:	Organization: USS Reliable	
Sponsor's Name: SSA	Relationship to Sponsor: Self	Records maintained at: USS Reliable

NAVMED 6150/20 (Rev. 1-94)

S/N 0105-LF-017-9000

Fold along line. File on left side of folder.

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Figure 12-3.—Summary of Care, NAVMED 6150/20.

as involvement in the Asbestos Program, the Hearing Conservation Program, or exposure to lead. Include also the following laboratory tests: blood type, G6PD, and sickle trait.

CHRONOLOGICAL RECORD OF MEDICAL CARE (SF 600)

The *Chronological Record of Medical Care*, SF 600, provides a current, concise, and comprehensive record of a member's military medical history (fig. 12-4, view A and B). Use the SF 600 for all outpatient care and file in the HREC. Record all visits, including those that result in referrals to other MTFs, on the SF 600. Each person making an entry on the form must sign the entry and include his identification information (full name, grade or rate, profession [e.g., MC, NC, etc.], and SSN), either hand printed, typed, or stamped.

Properly maintained, the SF 600 facilitates the evaluation of a patient's physical condition and reduces correspondence necessary to obtain medical records. Appropriate use of the form also eliminates unnecessary repetition of expensive diagnostic procedures and serves as an invaluable permanent record of medical evaluations and treatments.

Completing the SF 600

Entries made on the SF 600 can be typewritten when practical. However, entries normally are handwritten with black or blue-black ink pens. When initiating an SF 600, patient identification data should be completed. Also, type or stamp the date (DD-MMM-YY) and the name and address of the activity responsible for the entry.

Use both sides of each SF 600. Preparation of a new SF 600 is not necessary each time the person is seen in a different MTF. If only a few entries are recorded on the SF 600 at the time of a move, stamp the designation and location of the receiving MTF below the last entry and use the rest of the page to record subsequent visits. If the back of the SF 600 is not used, then the back needs to be crossed out and the words "This side not used," printed in the middle of the form.

SF 600s are continuous and include the following information: complaints, duration of illness or injury, physical findings, clinical course, results of laboratory or other special examinations, treatment (including operations), physical fitness at the time of disposition, and disposition. The subjective complaint, observation, assessment, and plan (SOAP) format may be used for entries so long as the required information in table 12-3 is included.

Table 12-3.—Required Information on an SF 600

ITEM	REMARKS
Date	A complete date must be included with every entry in the HREC. When an undated page is misfiled, it is difficult to replace in proper sequence. Use the three-letter abbreviation for the month on all dates (e.g., 27 Apr 96).
MTF name	Name of hospital, clinic, or ship
Clinical department or service	(e.g., Military Sick Call, Orthopedic Department., etc.)
Chief complaint or purpose of visit	(e.g., headache, PRT screening, etc.)
Objective findings	
Diagnosis or medical impression	
Studies ordered and results	(e.g., laboratory, X-ray, etc.)
Therapies administered	
Patient disposition, recommendations, and patient instructions	(e.g., SIQ for 24 hours, referral to specialty clinic, etc.)
Healthcare provider's name and signature	Include the provider's grade or rate, profession (e.g., MC, NC), and SSN

Enter the following information indicated on table 12-3 on the patient's SF 600.

Record each visit and the complaint described, even if a member is returned to duty without treatment. Also, document if a patient leaves before being seen.

Other SF 600 Entries

Other SF 600 entries include the following:

- Imminent hospitalization
- Special procedures and therapy
- Sick call visit

NSN 7540-00-634-4176

HEALTH RECORD	CHRONOLOGICAL RECORD OF MEDICAL CARE
DATE	SYMPTOMS, DIAGNOSIS, TREATMENT TREATING ORGANIZATION *(Sign each entry)*
1 DEC 97	NAVAL HOSPITAL, BLANK, VA
	Member cut forehead when he slipped in shower and struck head on edge of shower stall. 1" (2.54 cm) laceration over left eyebrow. Wound cleaned and sutured with six 6-0 nylon sutures. Tetanus Toxoid booster given. To duty. To return to sick call on 6 Dec 97.
	W. T. Door W. T. DOOR 111-11-1111 LCDR, MC, USNR
6 Dec 97	NAVAL HOSPITAL, BLANK, VA
	Forehead laceration healing well. Sutures removed. No other complaints. To duty.
	W. T. Door W. T. DOOR 111-11-1111 LCDR, MC, USNR
10 Jan 98	NAVAL HOSPITAL, BLANK, VA
	Health and Dental records screened. Physically qualified for transfer.
	Jack R. Frost HM1 J. R. FROST, USN 222-22-2222
23 Feb 98	USS CARRIER (CV-00)
	Transcribed from DD 689 - NAS Dispensary, Blank, VA, dated 21 Feb 98

PATIENT'S IDENTIFICATION *(Use this space for Mechanical Imprint)*

RECORDS MAINTAINED AT:	Naval Hospital, Blank, VA		
PATIENT'S NAME *(Last, First, Middle initial)*			SEX
DOE, John R.			M
RELATIONSHIP TO SPONSOR	STATUS		RANK/GRADE
N/A	AD		HM3
SPONSOR'S NAME		ORGANIZATION	
N/A		Fighter Sq.-VF 143	
DEPART./SERVICE	SSN/IDENTIFICATION		DATE OF BIRTH
USN	20-123-45-6789		9 May 75

CHRONOLOGICAL RECORD OF MEDICAL CARE

STANDARD FORM 600 (REV. 5-84)
Prescribed by GSA and ICMR
FIRMR (41 CFR) 201-45-45.505

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Figure 12-4.—Chronological Record of Medical Care, SF 600: A. Front view.

DATE	SYMPTOMS, DIAGNOSIS, TREATMENT TREATING ORGANIZATION *(Sign each entry)*
5 Mar 98	"Member injured right hand when he struck hand on backboard during COMNAVAIRLANT basketball game at 2030 this date. X-ray of right hand negative
	for fracture or dislocation. Impression: Contusion rt. hand. Treatment: Hot soaks for next several days and ASA 10 gr q4h prn for pain. To duty.
	/s/CDR P. T. BOATE, MC,USNR" A. B. Seaman
	HM2 A. B. SEAMAN, USN 333-33-3333
19 Mar 98	USS CARRIER (CV-00)
	DIAGNOSIS: Contusion, left thoracic region. ICDA Code No. 9220 Line of duty. Not due to own misconduct.
	While descending hatchway, slipped and fell, striking left chest against hatch combing.
	Patient complains of shortness of breath with pain and discomfort in left thoracic region.
	Examination indicates possibility of internal injuries, and as this ship is leaving port tomorrow on extended operation, it is deemed medically
	advisable to transfer this patient to a hospital.
19 Mar 98	Transferred to Naval Hospital, Blank, VA
	A. B. Smith A. B. SMITH, LT, MC, USN 444-44-4444
	APPROVED: Jack R. Frost J. R. Frost CAPT, MC, USN 555-55-5555
19 Mar 98	NAVAL HOSPITAL, BLANK, VA
	DIAGNOSIS: Contusion, left thoracic region. ICDA Code No. 9220 Line of duty. Not due to own misconduct.
	Admitted from USS CARRIER (CV-00) where while descending hatchway, patient slipped and fell, striking left chest against hatch combing. Complains of
	shortness of breath and severe pain in area of 4th thoracic rib. X-RAY: Examination of entire right and left thoracic regions reveals no
	evidence of fracture or bone pathology. TREATMENT: Heat application and bed rest.
	Slight pain with motion. Discomfort subsiding. On 24 Mar 98, patient developed acute sore throat.
	Temp. 101.2 (38.7); pharynx injected, tonsils inflamed. Exudate cultured.
	DIAGNOSIS CHANGED on 26 Mar 98 by reason of intercurrent diagnosis. Tonsillitis, Acute, Streptococcal, ICDA Code No. 4630
	Line of duty. Not due to own misconduct. Placed on antibiotic therapy. (Penicillin)
	On 1 May 98, Temp. 98.6 (37.3); all medication discontinued. Slight discomfort and tenderness remain in left thoracic region. Ward privileges
4 May 98	authorized. No complaints. To duty. Well.
	APPROVED: M. N. Chairman V. C. Pistol M. N. CHAIRMAN Chief Service CAPT, MC, USN 777-77-7777 V. C. PISTOL, LT, MC, USN 666-66-6666

*U.S.GPO: 1997-426-840/69077 STANDARD FORM 600 BACK (REV. 5-84)

HM3f1204B

Figure 12-4.—Chronological Record of Medical Care, SF 600: B. Back view.

- Injuries or poisonings
- Line-of-duty inquiries
- Binnacle list and sick list
- Reservist check-in and check-out statements

IMMINENT HOSPITALIZATION.—When an admission of a patient is imminent, admission notes can be made on an SF 600. However, the use of the SF 509, *Medical Record-Progress Report*, is preferred. The SF 509 form is routinely used for inpatient admission notes and are filed in the patient's IREC. Record referred or postponed inpatient admissions on the SF 600.

SPECIAL PROCEDURES AND THERAPY.—When patients are seen repeatedly for special procedures or therapy, such as physical and occupational therapy, renal dialysis, or radiation, note the therapy on the SF 600 and record interim progress statements. Initial notes, interim progress notes, and any summaries may be recorded on any appropriate authorized form, but should be referenced on SF 600. Write a final summary when special procedures or therapy are ended. This summary should include the result of evaluative procedures, the treatment given, the reaction to treatment, the progress noted, condition on discharge (when applicable), and any other pertinent observations.

SICK CALL VISITS.—Whenever a member is evaluated at sick call, an entry will be made on an SF 600 reflecting the complaints or conditions presented, pertinent history, treatment rendered, and disposition.

INJURY OR POISONING.—In the event of injury or poisoning, record the duty status of the member at the time of occurrence and the circumstances of occurrence per the guidelines in BUMEDINST 6300.3, *Inpatient Data System*.

LINE-OF-DUTY INQUIRIES.—When a member of the naval service incurs an injury that might result in permanent disability or results in his physical inability to perform duty for a period exceeding 24 hours, an entry should be made concerning line-of-duty misconduct. Such entries should include facts, such as time of injury, date, place, names of persons involved, and the circumstances surrounding the injury.

A line-of-duty inquiry is conducted to establish whether the injuries the patient sustained are the result of misconduct on the part of the member or others. For more details on line-of-duty inquiries, see the *Manual of the Judge Advocate General* (JAGMAN).

BINNACLE LIST AND SICK LIST.—When a member's name is placed on the Binnacle List for treatment, make an entry on the SF 600 showing date, diagnosis, and a summary of treatment.

When an active duty member is placed on the Sick List, the medical department representative (MDR) should enter information on the SF 600 about the nature of the disease, illness, or injury; pertinent history or circumstances of occurrence; treatment rendered; and disposition.

SERIOUSLY ILL/VERY SERIOUSLY ILL (SI/VSI) LIST.—Place personnel whose illness or injuries are severe on the SI/VSI List (as defined in MILPERSMAN 4210100) and make appropriate notification.

RESERVIST CHECK-IN AND CHECK-OUT STATEMENTS.—Naval Reserve personnel who are checking in, or out on orders for annual training (AT), active duty for training (ADT), or inactive duty training travel (IDTT)) should sign the following statements. The statements should be entered on an SF 600 and signed by the reserve member and the MDR.

For personnel checking in:

> I certify that there have been no significant changes in my physical condition since my last physical examination or annual certification. Furthermore, I certify that I have no illness or injury that would preclude me from performing this period of (circle one) AT, ADT, IDTT.
>
> (Member's and MDR's signature and date)

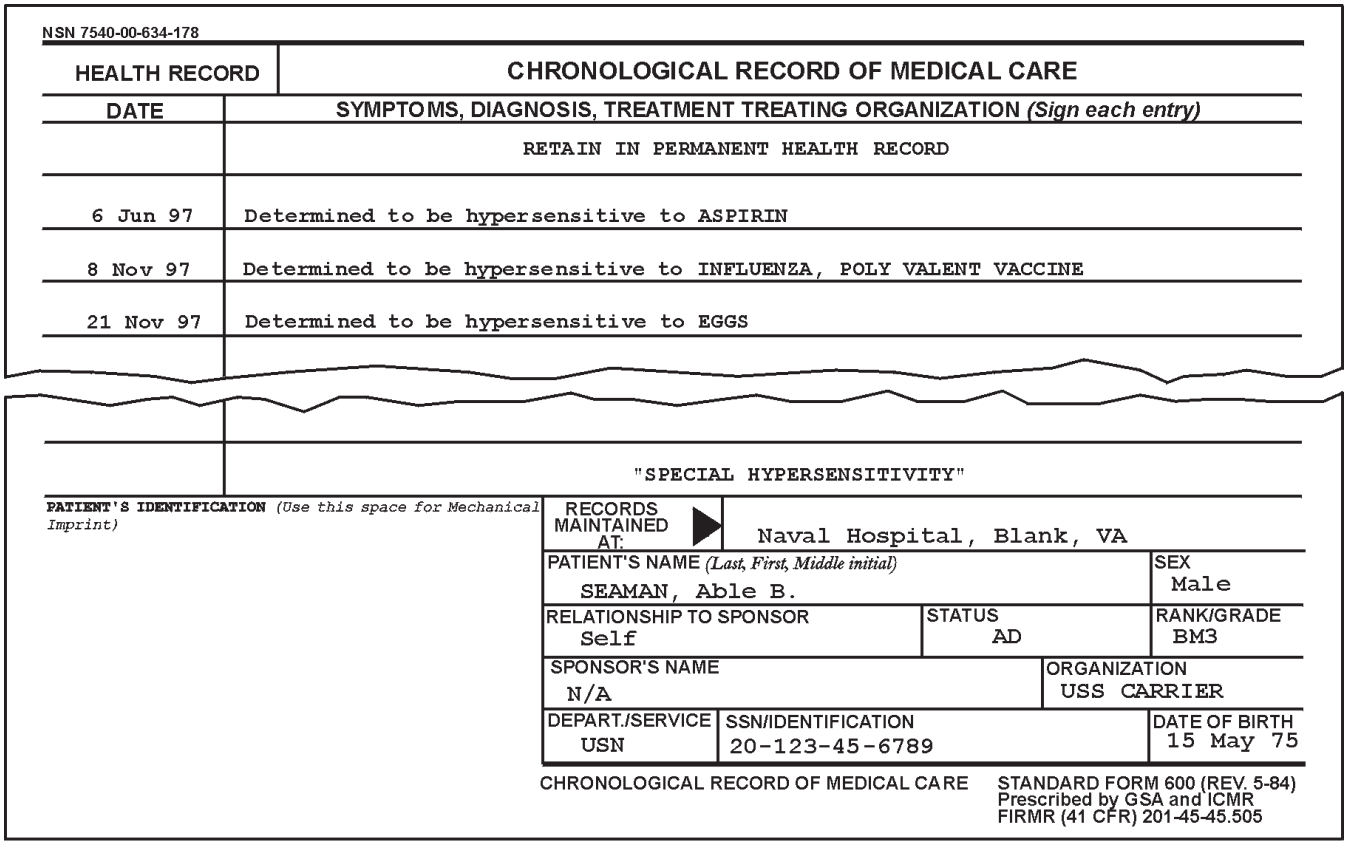
For personnel checking out:

> I certify that I have/have not incurred or aggravated any injuries or illnesses during the period of Naval Reserve service.
>
> (Member's and MDR's signature and date)

Special SF 600s

Two special SF 600s will be covered in the section. Both forms perform specific functions.

SPECIAL-HYPERSENSITIVITY SF 600.—Indicate any hypersensitivity to drugs or chemicals on a separate SF 600 (fig. 12-5). The SF 600 will be marked "SPECIAL-HYPERSENSITIVITY" at the



NSN 7540-00-634-178

HEALTH RECORD — CHRONOLOGICAL RECORD OF MEDICAL CARE

DATE	SYMPTOMS, DIAGNOSIS, TREATMENT TREATING ORGANIZATION *(Sign each entry)*
	RETAIN IN PERMANENT HEALTH RECORD
6 Jun 97	Determined to be hypersensitive to ASPIRIN
8 Nov 97	Determined to be hypersensitive to INFLUENZA, POLY VALENT VACCINE
21 Nov 97	Determined to be hypersensitive to EGGS
	"SPECIAL HYPERSENSITIVITY"

PATIENT'S IDENTIFICATION *(Use this space for Mechanical Imprint)*

RECORDS MAINTAINED AT: Naval Hospital, Blank, VA

PATIENT'S NAME *(Last, First, Middle initial)*		SEX
SEAMAN, Able B.		Male
RELATIONSHIP TO SPONSOR	**STATUS**	**RANK/GRADE**
Self	AD	BM3
SPONSOR'S NAME		**ORGANIZATION**
N/A		USS CARRIER
DEPART./SERVICE	**SSN/IDENTIFICATION**	**DATE OF BIRTH**
USN	20-123-45-6789	15 May 75

CHRONOLOGICAL RECORD OF MEDICAL CARE — STANDARD FORM 600 (REV. 5-84) Prescribed by GSA and ICMR FIRMR (41 CFR) 201-45-45.505

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Figure 12-5.—Standard Form 600, Special-Hypersensitivity.

bottom of the page. Appropriate entries regarding the hypersensitivity should be made on the SF 601 (Immunization Record), SF 603 (Dental Report), NAVMED 6150/10-19 (HREC jacket), and the NAVMED 6150/20 (Summary of Care).

BLOOD GROUPING AND TYPING RECORD.—The Blood Grouping and Typing Record, which is generated at the member's initial entry processing point, is an SF 600 overprint. Information on the Blood Grouping and Typing Record identifies the individual by the appropriate ABO group and Rh type (positive or negative). Testing results are documented on the form and the original laboratory request filed with the SF 545, *Laboratory Result Display*, in the member's HREC. The Blood Grouping and Typing Record may also contain a syphilis screening test and other screening test for the presence of certain diseases.

IMMUNIZATION RECORD (SF 601)

The purpose of the SF 601 form (fig. 12-6) is to record prophylactic (disease preventive) immunizations; sensitivity tests; reactions to transfusions, drugs, sera (*sing.* serum), and food; known allergies; and blood-typing. The SF 601 contains specified blocks for various immunizations, such as yellow fever vaccine, typhoid vaccine, and influenza vaccine.

Preparing and Maintaining SF 601

An immunization record is prepared and maintained for each person with an HREC. Information on the SF 601 is recorded in designated blocks. When space is exhausted in any single category, prepare a new SF 601 and file in the HREC in chronological order. Verify previous entries and bring the most current immunizations forward. Retain the old SF 601 beneath the new SF 601. Replacement of the SF 601 is not required because of a change in grade, rating, name, or status of member. Never maintain the SF 601 separate from the HREC. Information recorded on the SF 601 is normally needed for government international travel, such as unit deployments or directed governmental travel.

Immunization Entries

The name of the medical officer or MDR administering the immunization or test or determining

HEALTH RECORD — IMMUNIZATION RECORD

All entries in ink to be made in block letters

VACCINATION AGAINST SMALLPOX *(Number of previous vaccination scars)*

	DATE	ORIGIN	BATCH NUMBER	REACTION	STATION	PHYSICIAN'S NAME
1						
2						
3						
4						
5						
6						

YELLOW FEVER VACCINE

	DATE	ORIGIN	BATCH NUMBER	STATION	PHYSICIAN'S NAME
1	05Jan98	Nat'l Drug Company	Y101	Naval Base, Norfolk, VA	J. B. Doe
2					
3					

TYPHOID VACCINE

	DATE	DOSE	PHYSICIAN'S NAME		DATE	DOSE	PHYSICIAN'S NAME
1	07Jun95	Vi 0.5/ Q 2 yrs	A. B. Smith	4			
2	23Jul97	4 caps/ Q 5 yrs	W. T. Door	5			
3				6			

TETANUS-DIPHTHERIA TOXOIDS

	DATE	DOSE	PHYSICIAN'S NAME		DATE	DOSE	PHYSICIAN'S NAME
1	05Jan98	0.5 cc	J. B. Doe	4			
2				5			
3				6			

CHOLERA VACCINE

	DATE	PHYSICIAN'S NAME		DATE	PHYSICIAN'S NAME		DATE	PHYSICIAN'S NAME
1	12Jan98	J. B. Doe	4			7		
2			5			8		
3			6			9		

PATIENT'S IDENTIFICATION *(Mechanically Imprint, Type of Print):*

SEAMAN, Able B.
Male 09May75
YN2 N/AD
20-123-45-6789

Patient's Name— last, first, middle initial; Sex; Age or Year of Birth; Relationship to Sponsor; Component/Status; Department/Serevice.

Sponsor's Name— last, first, middle initial; Rank/Grade; SSN or Identification Number; Organization.

601-105

IMMUNIZATION RECORD

Standard Form 601 October 1975 (Rev)
General Services Administration & Interagency Committee on Medical Records
FIRMR (41 CFR) 201-45 505

HM3f1206A

Figure 12-6.—Immunization Record, SF 601: A. Front view.

ORAL POLIOVIRUS VACCINE

	DATE	DOSE	PHYSICIAN'S NAME		DATE	DOSE	PHYSICIAN'S NAME
1	05Jun00	0.5cc	J. R. Frost	3			
2				4			

INFLUENZA VACCINE

	DATE	DOSE	PHYSICIAN'S NAME		DATE	DOSE	PHYSICIAN'S NAME
3	15Nov96	0.5cc	A. B. Smith	3	01Nov98	0.5cc	J. B. Doe
4	15Oct97	0.5cc	W. T. Door	4	20Oct99	0.5cc	J. R. Frost

OTHER IMMUNIZATIONS

	DATE	TYPE	DOSE	PHYSICIAN'S NAME		DATE	TYPE	DOSE	PHYSICIAN'S NAME
1	27Aug99	MMR		J. R. Frost	5	06Jun00	HepatitisA#2	1.0cc	J. R. Frost
2	16Nov99	Varicella #1	0.5cc	J. R. Frost	6				
3	16Dec99	Varicella #2	0.5cc	J. R. Frost	7				
4	23Dec99	HepatitisA#1	0.1cc	J. R. Frost	8				

SENSITIVITY TEST *(Tuberculin, etc.)*

	DATE	TYPE	DOSE	ROUTE	RESULT	PHYSICIAN'S NAME
1	16Nov98	TB (Mantoux)	0.1cc	Intradermal	zero mm	J. B. Doe
2						
3						
4						
5						

REMARKS:

(1) HYPERSENSITIVITY TO ASPIRIN

(2) HISTORY MODERATELY SEVERE REACTION TO PARENTERAL PENICILLIN IN 1995

THIS RECORD IS ISSUED IN ACCORDANCE WITH ARTICLE 99, WHO SANITARY REGULATION NO. 2.

HM3f1206B

Figure 12-6.—Immunization Record, SF 601: B. Back view.

the nature of the sensitivity reaction should be typed or stamped on the SF 601 form. Signatures are not required; however, when signatures are used, make sure you can read them.

The medical officer or Medical Department representative administering the immunization is responsible for completing entries in the appropriate sections of SF 601. For smallpox (if administered), cholera, yellow fever and anthrax immunizations, record the manufacturer's name and batch or lot number.

NOTE: The specific protocol for recording anthrax immunizations is outlined in SECNAVINST 6230.4.

Type any hypersensitivity to drugs or chemicals under "Remarks and Recommendations" in capital letters (e.g., "HYPERSENSITIVITY TO ASPIRIN," "HYPERSENSITIVE TO LIDOCAINE"). This entry is in addition to a similar entry required on the SF 603, the SF 600 Special-Hypersensitivity form, and the NAVMED 6150/20 retained permanently in the HREC.

When recording positive results (10 mm or more induration) of the tuberculin skin test (PPD), refer to the *Tuberculosis Control Program* instruction, BUMEDINST 6224.8, for guidance.

Disposing of SF 601

When a service member is released from active duty or separated from the service, the SF 601 is to remain with the HREC.

INTERNATIONAL CERTIFICATES OF VACCINATION (PHS-731)

All personnel performing international travel should be immunized in accordance with NAVMEDCOMINST 6230.15, *Immunizations and Chemoprophylaxis*, and the current edition of FM 8-33/NAVMED P-5038, *Control of Communicable Diseases of Man*. Service members should have a properly completed and authenticated PHS-731 form (International Certificates of Vaccination) in their possession. The PHS-731 form is issued to service members for independent international travel. This form, kept by the individual, is a personal record of immunizations. The PHS-731 is not to be filed in the HREC at any time. Any immunizations recorded on the PHS-731 should be transcribed onto the SF 601.

According to international rules, entries on the PHS-731 require authentication for immunizations against smallpox (if administered), yellow fever, cholera, and anthrax. Authentication (proof the immunization has been given) is accomplished by stamping each entry with the Department of Defense (DoD) immunization stamp and by the healthcare provider's signature. The signature block may be stamped or typewritten and authenticated with the healthcare provider's signature.

ABSTRACT OF SERVICE AND MEDICAL HISTORY (NAVMED 6150/4)

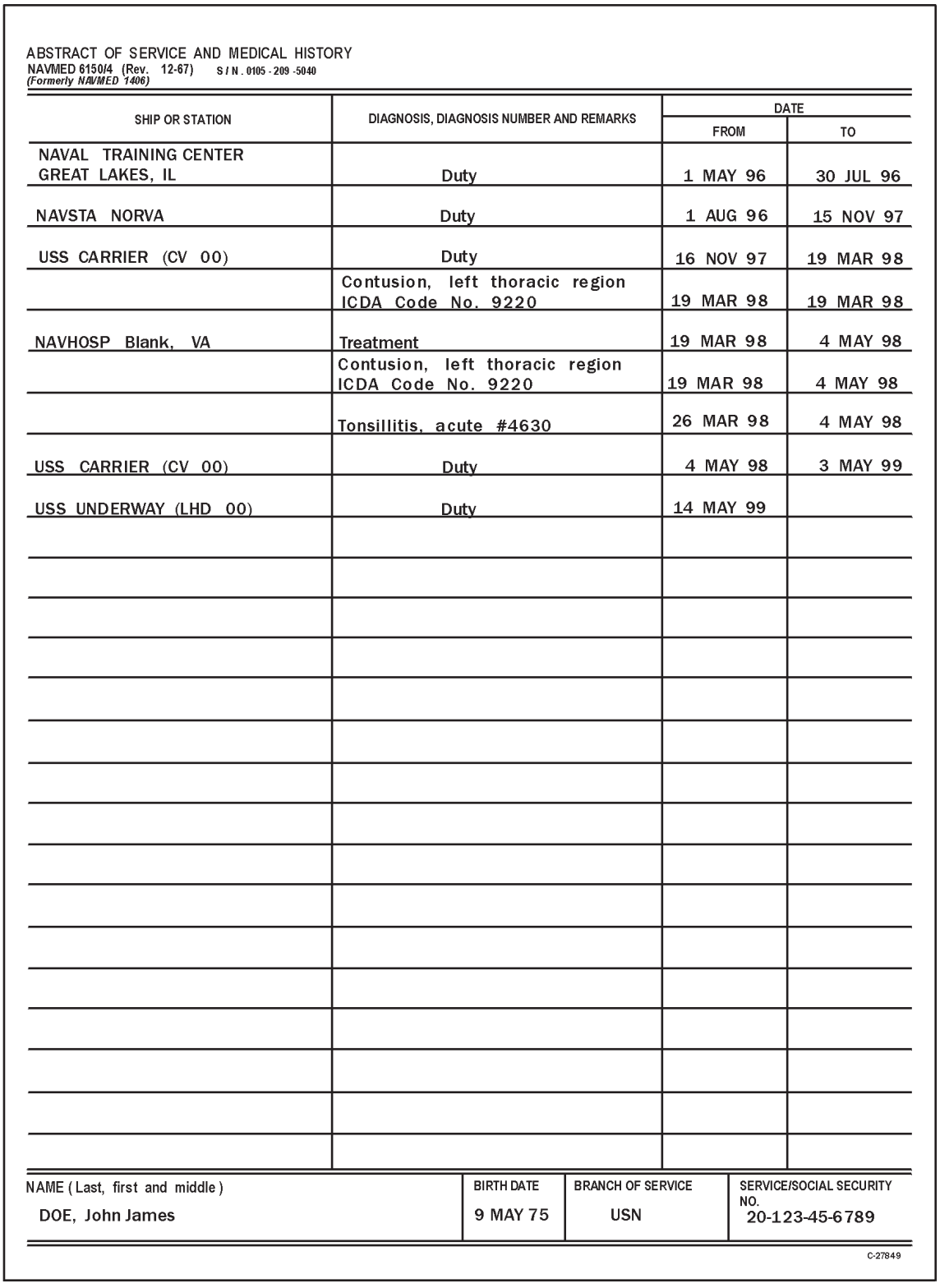
This form provides a chronological history of the ships and stations to which a member has been assigned for duty and treatment, and an abstract of medical history for each admission to the Sick List.

A NAVMED 6150/4 (fig. 12-7) is prepared upon opening the health record, and it remains with the health record regardless of any change in the member's status. Continuation sheets are incorporated whenever a current abstract is completely filled. Complete columns of the NAVMED 6150/4 as follows:

- **Ship or Station column.** Enter the name of the ship or command to which the member is attached for duty or treatment.
- **Diagnosis, Diagnosis Number, and Remarks column.** Enter the diagnosis title and International Classification of Diseases (ICDA) number each time final disposition from the Sick List is made. When there is more than one diagnosis for a single admission, record each diagnosis.
- **Date column.** Indicate in the "From" and "To" subcolumns all dates of reporting and detachment for duty or dates of admission and discharge from the Sick List. Upon transfer for temporary duty (TDY), make an entry only if the HREC accompanies the individual to the place of TDY.

NAVMED 6150/4 is retained as a permanent part of the HREC. When the record is closed, make an entry indicating the date, title of servicing activity, and explanatory circumstances.

Upon discharge and immediate reenlistment, or change in status, an appropriate entry to this effect should be made on the current NAVMED 6150/4. Subsequent chronological entries are continued on the same form.



ABSTRACT OF SERVICE AND MEDICAL HISTORY
NAVMED 6150/4 (Rev. 12-67) S/N. 0105-209-5040
(Formerly NAVMED 1406)

SHIP OR STATION	DIAGNOSIS, DIAGNOSIS NUMBER AND REMARKS	DATE FROM	DATE TO
NAVAL TRAINING CENTER GREAT LAKES, IL	Duty	1 MAY 96	30 JUL 96
NAVSTA NORVA	Duty	1 AUG 96	15 NOV 97
USS CARRIER (CV 00)	Duty	16 NOV 97	19 MAR 98
	Contusion, left thoracic region ICDA Code No. 9220	19 MAR 98	19 MAR 98
NAVHOSP Blank, VA	Treatment	19 MAR 98	4 MAY 98
	Contusion, left thoracic region ICDA Code No. 9220	19 MAR 98	4 MAY 98
	Tonsillitis, acute #4630	26 MAR 98	4 MAY 98
USS CARRIER (CV 00)	Duty	4 MAY 98	3 MAY 99
USS UNDERWAY (LHD 00)	Duty	14 MAY 99	

NAME (Last, first and middle)	BIRTH DATE	BRANCH OF SERVICE	SERVICE/SOCIAL SECURITY NO.
DOE, John James	9 MAY 75	USN	20-123-45-6789

C-27849

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Figure 12-7.—Abstract of Service and Medical History, NAVMED 6150/4.

RECORD OF OCCUPATIONAL EXPOSURE TO IONIZING RADIATION (DD FORM 1141)

This form is initiated when military personnel are first exposed to ionizing radiation (with the exception of patients incurring such radiation while undergoing diagnostic treatment). This form becomes a permanent part of the member's health record.

Instructions for preparing DD Form 1141 are on the back of the form. Further instruction concerning the applicability and use of the form are contained in

the *Radiation Health Protection Manual*, NAVMED P-5055.

ADJUNCT HEALTH RECORD FORMS AND REPORTS

This section provides instruction for using certain forms in the health record instead of transcribing their data to the SF 600, *Chronological Record of Medical Care*.

Narrative Summary (SF 502)

The purpose of the SF 502 is to summarize clinical data relative to treatment received during periods of hospitalization. The narrative summary should include all procedures and diagnoses, and must agree with information listed on the *Inpatient Admission/Disposition Report* (NAVMED 6300/5) and any information listed in the operation report.

The SF 502 should include the following information:

- Reason for hospitalization, including a brief clinical statement of the chief complaint and history of the present illness.
- All significant findings.
- All procedures performed and treatment given, including patient's response, complications, and consultations.
- The condition and relevant diagnosis at the time of patient's transfer or discharge.
- Discharge instructions given to patients or their families (i.e., physical activity permitted, medication, diet, and follow-up care).
- List of principal providers or attending physicians and their signatures.

A completed copy of the SF 502 should accompany patients who are transferred to another medical facility. Upon discharge from the hospital, a copy of the SF 502 should be taken to the member's parent command. The SF 502 informs the command of any limitations, medications, and follow-up care the service member may need. After command use, the SF 502 should be placed into the member's HREC. For more detailed instruction on the use of the SF 502, refer to the MANMED.

Abbreviated Clinical Record (SF 539)

The SF 539 may be used as a substitute for the narrative summary for those admissions of a minor nature that require less than 48 hours of hospitalization. A copy of SF 539 should be filed in the HREC.

Consultation Sheet (SF 513)

The SF 513 is used for outpatients who need to be referred to other healthcare providers or specialists, such as gynecologists, internists, optometrists, etc. The primary patient assessment should be entered onto the form. Include as well the results of examinations and tests on the SF 513. The patient remains the responsibility of the referring provider until the specialist takes over the care. In some cases, the specialist will perform an examination or procedure and refer the patient back to the original provider for continued care. The original consultation form stays in the HREC.

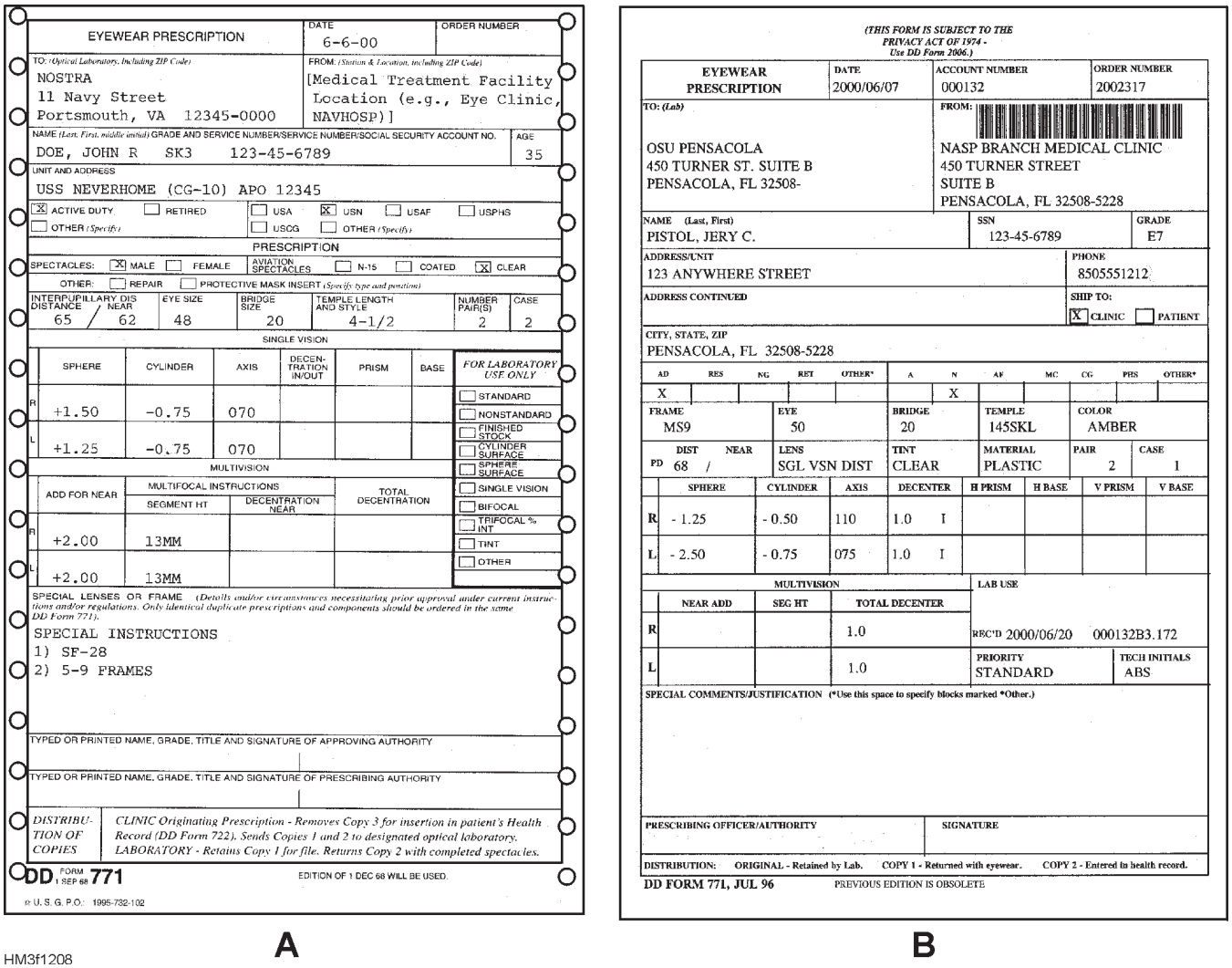
Medical Board Report (NAVMED 6100/1)

Whenever a member of the naval service is reported on by a medical board, place a legible copy of the report in the health record instead of transcribing the clinical data to the SF 600. Make a notation on the current SF 600 to indicate the clinical data is contained in the copy of the Medical Board Report incorporated in the health record, when the Medical Board Report is forwarded to the Navy Department for review and appropriate disposition. Enter a report of the departmental action on the current SF 600.

Eyewear Prescription (DD Form 771)

The purpose of DD form 771, *Eyewear Prescription* (fig. 12-8), is to order corrective prescription eyewear. Depending on its edition date (any of which is authorized), the DD form 771 may consist of a 3-copy carbon form (for use with pen), a 2-part carbonless form (printed on a tractor-feed printer) (fig. 12-8A), or a computer-generated form using virtual copies (fig. 12-8B). The original of the form will be sent to the optical laboratory, and a copy of the form will be placed in the patient's HREC. As with other standard forms, the DD 771 is frequently submitted via computer modem or fax, depending on availability.

Three major areas covered by the DD Form 771 are patient information, prescription information, and



HM3f1208

Figure 12-8.—Eyewear Prescription, DD Form 771: A. Computer-printed edition; B. Computer-generated edition.

miscellaneous information. These three areas are discussed as follows:

1. **Patient Information:** The specific information required is the patient's name, rank, SSN, duty station, mailing address, and military status. This information is required to establish eligibility and provide the requesting activity with an address for the patient upon receipt of the completed eyeglasses.

2. **Prescription Information:** Since the spectacle prescription is the technical portion of the order form, you should complete it with great care, ensuring that the prescription is transferred in its entirety. The essential elements of the prescription are interpupillary distance, frame size, temple length, plus and minus designators for both sphere and cylinder powers, segment powers and heights, prism, and prism base. It is not necessary to calculate decentration in the single vision or multifocal portions of the order. It is also unnecessary to try to transpose any prescription into plus or minus cylinder form. Leave the prescription as is, copy it onto the DD Form 771, and note in the remarks section that the prescription has been copied and is in the HREC.

3. **Miscellaneous Information:** This area is reserved for any information you feel the Navy Optical Laboratory may need. Information the laboratory may need includes special fabrication requirements, such as multifocal lenses, or proof of eligibility for specialized eyewear, such as aviator sunglasses. Standard issue items can be determined from NAVMEDCOMINST 6810.1, *Ophthalmic Services*.

DD Forms 771 should be typewritten or computer printed whenever possible. This practice eliminates

any errors by misreading an individual's handwriting. It is critical you take the time to correctly order spectacles. Omission of any information or entering erroneous information will result in a delay at the fabricating facility or a patient's receiving an incorrect pair of eyeglasses, or both.

If you cannot read what has been written on an eyewear prescription, you should contact the optometrist for clarification. In the case where the optometrist cannot be contacted, as a last effort you can send a photostatic copy of the prescription to the optical laboratory, rather than transcribing information of which you are unsure. Make sure that the copy of the prescription is accompanied by a completed DD Form 771.

VERIFYING HEALTH RECORDS

LEARNING OBJECTIVE: *Identify health record items that should be reviewed during an annual verification.*

Health records are verified annually by medical personnel having custody of the record. Health records should also be reviewed when service members report and detach from their command, and at the time of their physical examinations.

Each record should be carefully reviewed, and any errors or discrepancies should be corrected. Items to be reviewed during an annual verification include: form placement, forms order (chronological), and completeness and accuracy of patient identification data on the record jacket and on each piece of medical documentation. In addition, verify that the Privacy Act Statement has been signed, the Summary of Care form is updated (as necessary), blood group and Rh factor are documented, and currency of immunizations and accuracy of allergy documentation are complete.

Upon completion of an annual HREC verification, you should make an SF 600 entry and black-out the corresponding year block on the front leaf of the jacket with a black felt-tip pen. With this procedure, records that have not been verified during the calendar year can be identified readily and the annual verification accomplished.

CLOSING HEALTH RECORDS

LEARNING OBJECTIVE: *Recall closing procedures for health records.*

A member's health record is to be closed under the following circumstances:

- Death or declared death
- Discharge
- Resignation
- Release from active duty
- Retirement
- Transfer to the Fleet Reserve or release to inactive duty
- Missing or missing in action (MIA)(when officially declared as such)
- Desertion (when officially declared as such)
- Disenrollment as an officer candidate or midshipman

When closing an HREC, make sure the record is in order, that there are no loose papers, and all identification data is consistent. Record closing entry on the NAVMED 6150/4, *Abstract of Service and Medical History*. Include the date of separation, title of servicing activity, and any explanatory circumstances.

Upon final discharge or death, send the entire HREC and dental record to the command maintaining the member's service record (no later than the day following separation) for inclusion in and transmittal with the member's service record. Make sure the original of the separation physical examination documents are included in the HREC before delivery to the command maintaining the member's service record, such as the PSD, PSA, etc. In case of death, send a copy of the death certificate along with the transmitted records.

A copy of the HREC is provided free of charge to members who requests one upon their release, discharge, or retirement.

MISSING OR MISSING-IN-ACTION MEMBERS

Whenever a member disappears and the available information is insufficient to warrant an administrative determination of death, enter a summary of the

relevant circumstances on the SF 600. Include circumstances about the presumed disappearance of the individual, then status (missing or missing in action), and supporting documentation. Close the record and handle it as you would records for members being discharged from the service.

DESERTION

When a member is officially declared a deserter, explain this fact on the SF 600 and the NAVMED 6150/4. Deliver member's HREC and dental treatment record to the member's commanding officer (CO) for inclusion in and transmittal with the member's service record for both Navy and Marine Corps personnel.

When a deserter is apprehended or surrenders, the CO of the activity having jurisdiction is required to submit a request for the member's records to Bureau of Naval Personnel (BUPERS) or Commandant of the Marine Corps (CMC), as appropriate.

RETIREMENT

When a member of the naval service is placed on the retired list or Fleet Reserve List, close the HREC as you would on a discharge. However, upon request of the retiring member, a new medical record (OREC) is established. A **copy** of the retiring member's active duty HREC may be incorporated into a new NAVMED 6150/20-29 folder. Make an entry on an SF 600 in the HREC and in the new OREC, stating the date the HREC was closed.

DISABILITY SEPARATION OR RETIREMENT

The MTF should send a copy of the HREC of a member being separated for disability to the DVA (Department of Veteran Affairs) regional officer nearest to where the member will be residing. Send the medical record directly from the MTF to the DVA, so the record can be considered as a primary source of evidence in processing a claim for veteran's benefits. A record carried by the member is considered secondary evidence and is not used to process a claim. Send the record with the VA 526, *Claim of Benefits*, so the regional office can initiate the claim.

Members separating from the service and eligible for veteran's benefits should be provided a copy of their HREC on request. Members should be counseled to request a copy in the event they may make a claim for veteran's benefits in the future. Always offer to send a copy of their HREC to the regional DVA office for them.

SUMMARY

As a Hospital Corpsman, you will be responsible for managing health records. Health records are a vital tool in the healthcare delivery process. It is of the utmost importance that you learn and follow guidelines for establishing, handling, maintaining, and closing health records. Keep in mind, your handling of the health record can affect others. A well-maintained health record furnishes healthcare providers with current medical data, enabling the provider to give each patient timely and comprehensive medical care. Confidential treatment of a patient's medical information honors the patient's privacy and is in keeping with legal regulations. Following the guidelines in this chapter will assist you in properly managing health records under your care.

CHAPTER 13

SUPPLY

The responsibility of accounting for assets within the Department of the Navy comes down from the Secretary of the Navy (SECNAV) to the commanding officers of field activities throughout the Navy. Commanding officers must ensure proper fiscal administration by the directives, principles, and policies prescribed by the Comptroller of the Navy.

The Naval Supply Systems Command (NAVSUP) is responsible for administering supply management policies, to include cataloging, standardization, inventory control, storage, issue, and disposal of naval material. You, as a Hospital Corpsman, must be familiar with the methods of procuring and accounting for naval materials.

In this chapter we will discuss the proper procedures to use in estimating supply needs, procuring supplies and material, and accounting for supplies and operating funds. The last section of the chapter deals with contingency supply blocks and their maintenance.

NAVSUP MANUALS, PUBLICATIONS, AND DIRECTIVES

LEARNING OBJECTIVE: *Recognize the purpose and content of key supply manuals and instructions.*

To function well in the Navy supply system, you must be familiar with the NAVSUP manuals, publications, and directives that outline policy and procedures for different areas of supply. These manuals, publications, and directives are available in the Naval Logistics Library located on the NAVSUP homepage, www.navsup.navy.mil.

ALTERNATIVE TITLES FOR NAVSUP PUBLICATIONS

NAVSUP publications may be referred to in four different ways. For example, the *Operating Procedures Manual Military Standard Requisitioning and Issue Procedure*, and *Military Standard Transaction Reporting and Accounting Procedure (MILSTRIP/MILSTRAP)*, NAVSUP P437, may be referred to in various publications and directives as **NAVSUP Publication 437**, **NAVSUP P-437**, **NAVSUP Pub 437**, or **NAVSUP 437**. However, when referencing this publication (or other NAVSUP publications), cite it as "**NAVSUP P-437**" (and the applicable paragraph number).

CHANGES TO PUBLICATIONS

Regardless of how well you have learned to use the various supply publications, if they aren't kept up to date, you may encounter problems when you attempt to order an item. Also, you may be unaware of an item that has been recalled. Enter changes promptly when they are received to ensure that the latest information is being used. Always read accompanying instructions before making changes.

NAVAL SUPPLY SYSTEMS COMMAND (NAVSUP) MANUAL

The NAVSUP manual is designed to institute standardized supply procedures and consists of the following four volumes:

Volume I	—	*Introduction to Supply*
Volume II	—	*Supply Ashore*
Volume III	—	*Retail Clothing Stores and Commissary Stores*
Volume IV	—	*Transportation of Property*

OPERATING PROCEDURES MANUAL FOR MILITARY STANDARD REQUISITIONING AND PROCEDURES (NAVSUP P-437) AND MILITARY STANDARD TRANSACTION REPORTING AND ACCOUNTING PROCEDURES (MILSTRIP/ MILSTRAP)

The MILSTRIP/MILSTRAP manual issues policy on the MILSTRIP/MILSTRAP system. This publication takes precedence over conflicting provisions contained in other supply system manuals or directives. The manual covers system management,

requisitioning procedures for ashore activities, inventory control, financial matters, and other topics. The publication provides forms, formats, and codes, and serves as a comprehensive reference for persons involved in preparing or processing MILSTRIP documents. Since NAVSUP P-437 is not distributed afloat, afloat MILSTRIP/MILSTRAP operations are incorporated into NAVSUP P-485.

MILSTRIP/MILSTRAP DESK GUIDE, NAVSUP P-409

The NAVSUP P-409 was published as a handy reference for personnel responsible for originating and processing MILSTRIP/MILSTRAP documents, since NAVSUP P-437 is a large, comprehensive, three-volume publication. This small booklet contains common definitions, coding structures, and abbreviated code definitions used on a day-to-day basis. Blank space is provided for entering commonly used routing identifiers, funding codes, project codes, and locally assigned codes.

AFLOAT SUPPLY PROCEDURES, NAVSUP P-485

The *Afloat Supply Procedures*, NAVSUP P-485, establishes policies for operating and managing afloat supply departments and activities. It helps supply personnel understand and perform their individual tasks. Although this publication is designed primarily for nonautomated supply procedures, a significant amount of the information it contains also applies to automated systems.

The procedures contained in this publication are the minimum essential for acceptable supply management and are mandatory unless specifically stated as optional. The publication encompasses the procedures outlined in the NAVSUP Manual, volumes I, II, and V, and NAVSUP P-437 as they apply to afloat situations. It covers organization and administration, material identification, material procurement, material receipt, custody and stowage, material expenditure and shipment, inventory management, transportation, and special material.

NAVY MEDICAL AND DENTAL MATERIAL BULLETIN, NAVMEDLOGCOM NOTICE 6700

The *Navy Medical and Dental Material Bulletin*, NAVMEDLOGCOM NOTICE 6700, is issued monthly via the NAVMEDLOGCOM homepage, www-nmlc.med.navy.mil, by the Commander, Naval Medical Logistics Command. It contains information of importance and interest to medical supply departments, such as changes in stock numbers, addition and deletions, availability of excess equipment, and notification of material unfit for use and disposal instruction. Revisions to this publication should be read carefully for any changes to your files or references.

APPROPRIATIONS AND OPERATING BUDGETS

LEARNING OBJECTIVE: *Recognize how appropriations and operating budgets are conducted.*

An appropriation is referred to in the NAVCOMPT Manual as ". . . [an authorization] by an act of Congress to incur obligations for specified purposes and to make payments therefor out of the Treasury." The Navy uses appropriations received to pay for the construction of new ships, to fund the cost of operations and maintenance for the existing fleet, and to pay for training, personnel pay, and to operate shore establishments that support the fleet.

TYPES OF APPROPRIATIONS

Three types of appropriations are used by the Navy, depending upon the purpose for which the appropriation is issued. Most appropriations are for one fiscal year (FY). The FY runs from 01 October of a year to 30 September of the following year. The federal government uses this time period for budgeting normal operating costs of the armed services, including the Navy. Other types of appropriations may be granted without a time limitation or for a specific time that may exceed 1 year.

Annual Appropriations

Annual appropriations are provided for active and reserve military personnel expenses, as well as for operation and maintenance expenses. The appropriations become available for obligation and expenditure at the beginning of the fiscal year designated in the Appropriations Act. Obligations may be incurred only during this designated fiscal year; however, the obligated funds remain available for the payment of such obligations for an additional 5 years. At the end of the additional 5-year period, fund

distribution differs, depending on the purpose of the appropriation.

Continuing Appropriations

A continuing appropriation, also referred to as a **no-year appropriation**, is one that is available for incurring obligations until the funding is exhausted or until the purpose for which it was made is accomplished without a fixed-period restriction. Examples of continuing appropriations are Military Construction Navy (construction projects that are planned up to 5 years ahead) and revolving funds such as the Defense Business Operating Funds (DBOF) (a projection of the predicted cost to operate the Navy).

Continuing appropriations become available for obligation and expenditure at the beginning of the FY following the passage of the Appropriations Act or may become immediately available when so specified in the Act. When the purpose of a continuing appropriation has been accomplished administratively or by Congress, DoD transfers an amount equal to the total of unliquidated obligations, less the total of reimbursements to be collected, to the surplus of the Treasury.

Multiple-Year Appropriations

Generally, multiple-year appropriations are made for appropriations that require a long lead time for planning and execution, such as procurement of aircraft, missiles, and ships. Multiple-year appropriations become available for obligation and expenditure at the beginning of the fiscal year (1 October) designated in the appropriation, unless otherwise stated in the Act. They are available for incurring obligations only during the FYs specified in the Act. However, they are available for paying such obligations for an additional 5 years.

At the end of the last FY included in the appropriation, when the appropriation expires for obligation purposes, the balance is transferred to the Treasury.

OPERATING BUDGETS

The operating budget is the annual budget of an activity and is assigned by the Chief of Naval Operations (CNO), Fiscal Management Division, to major claimants. A major claimant is an office, command, or Headquarters Marine Corps. The claimant is designated as the administering office under the operation and maintenance appropriation. Holders of operating budgets have the option of granting a degree of financial responsibility to subordinates by issuing operating targets (OPTARs). OPTARs are generally apportioned in four equal quarterly divisions that represent the maximum amount that can be spent for each quarter of the FY. By using this system, facilities are able to manage and effectively control the expenditure of funds. This system prevents overexpenditure of funds early in the fiscal year and helps prevent financial problems at the end of the year. Unused quarterly funds may be carried over to the next quarter simply by adding them to the new quarterly apportionment. At the end of the fourth quarter, all accounts are balanced and closed; new expenditures are not authorized until appropriated funds are made available for the new fiscal year.

Funds allotted to the medical department to purchase needed items are called the operating target (OPTAR). Medical OPTAR funds are the funds used to fulfill the following five major requirements:

- **Authorized Medical Allowance List (AMAL)**. The AMAL is the minimum amount of medical material to be maintained on board a ship or on order at any given time. The amount of material as noted in an AMAL is designated by BUMED for each class of ship and is based on past experience. Recommendations for changes to the AMAL should be forwarded through the chain of command to BUMED.

- **Authorized Dental Allowance List (ADAL)**. The ADAL is the minimum amount of dental material to be maintained on board a ship or on order at any given time. The amount of material as noted in an ADAL is designated by BUMED for each class of ship and is based on past experience. Recommendations for changes to the ADAL should be forwarded through the chain of command to BUMED.

- **Type Commander's (TYCOM) Requirements**. To supplement the AMAL, TYCOMs may have additional requirements to maintain units in a high state of readiness and allow units to be self-supporting in an emergency, such as a natural disaster or humanitarian mission. TYCOM requirements for medical considerations relate to such items as gun bags, airways, litters, and battle dressing supplies.

- **Special Mission Usage**. These missions include but are not limited to humanitarian, civilian rescue, and drug interdiction operations.
- **Administrative Requirements**. The purchase of consumable or medical OPTAR restricted items may be made from the medical OPTAR with the approval of the executive officer. Medical books and publications listed in NAVMEDCOMINST 6820.1 may also be purchased with this OPTAR.

FEDERAL SUPPLY CATALOG SYSTEM

LEARNING OBJECTIVE: *Recall the terms associated with the Federal Supply System and how to use the Federal Supply Catalog.*

The Department of Defense Supply System contains more than 4 million items; of this total the Navy stocks more than 1 million items. To order supplies effectively from this system, you must have a basic understanding of the DoD supply system terminology and structure. This includes the naming, description, classification, and numbering of all items carried under centralized control of the United States Government. Only one identification number is used for each item, from purchase to final disposal.

TERMINOLOGY

To effectively procure and account for naval materials, you will need to be familiar with terminology commonly used in the supply system. Some of the terms with which you should be familiar are discussed below:

BULK STOCK Material in full, unbroken containers available for future use.

CONSUMABLE Supplies that are consumed or disposed of after use.

EQUIPAGE Items that require management control afloat because of high unit cost, vulnerability to pilferage, or indispensability to the ship's mission.

CONTROLLED EQUIPAGE Items of equipage that require special management control because the material is essential for the mission or the protection of life, is relatively valuable, or easily converted to personal use.

EQUIPMENT Any functional unit of hull, mechanical, electrical, ordnance, or electronic material, operated singly or as a component of a system or subsystem. Equipment is considered nonconsumable.

MATERIAL All supplies, repair parts, equipment, and equipage used in the Navy/Marine Corps.

NON-CONSUMABLE Supplies and materials that are not consumed or disposed of after their use. Buildings and equipment are nonconsumable items.

REPAIR PART Any item that has an application and appears in an allowance parts list (APL), stock number sequence list (SNSL), integrated stock list (ISL), Naval Ship Systems Command drawings, or a manufacturer's handbook.

RESERVE STOCK Items on hand and available for issue for a specific purpose, but not for general use (for example, decontamination supplies).

STANDARD STOCK Material under the control of an inventory manager and identified by a National Item Identification Number (NIIN). The NIIN is the last nine-digits of the Federal Stock Number.

STOCK NUMBER The smallest quantity of a supply item.

FEDERAL SUPPLY CLASSIFICATION SYSTEM

The Federal Supply Classification System is designed to permit the classification of all items of supply used by the federal government. Each item of supply will be included in one—AND ONLY ONE—FSC. The FSC is made up of 2 two-digit

numeric codes: the federal supply group and the federal supply class. The federal supply group identifies, by title, the commodity area covered by the classes within each group.

An example of a Federal Supply Group and its classes is as follows:

Group 65 Medical, Dental, and Veterinary Supplies and Equipment		
	6505 -	Drugs Biological, and Official Reagents
	6508 -	Medicated Cosmetics and Toiletries
	6510 -	Surgical Dressing Material

NATIONAL STOCK NUMBERS

Every item in the Federal Supply Catalog is identified by a 13-digit stock number referred to as **National Stock Number** (NSN). The national stock number (NSN) for an item of supply consists of a four-digit federal supply classification (FSC group and class) and a nine-digit national item identification number (NIIN). The NIIN consists of a two-digit national codification bureau (NCB) code and seven digits that, in conjunction with the NCB code, identify each NSN item in the Federal Supply Distribution System.

The National Item Identification Number is a nine-digit number that identifies each item of supply used by the Department of Defense. Although the NIIN is part of the NSN, it is used independently to identify an item within a classification. Unlike the FSC, the NIIN is assigned serially, without regard for the name, description, or classification of the item.

An example NSN is: 3110-00-123-4567

3110	**00-**	**123-4567**
Federal Supply Classification (FSC)	National Codification Bureau Code	National Item Identification Number (NIIN)

NAVY ITEM CONTROL NUMBERS

Navy Item Control Numbers (NICN) identify items of material (such as pencils, staplers, sutures, and medications) that are not included in the FSC but are stocked in the Navy supply system. These numbers are 13-digits and are assigned by inventory control managers.

LOCAL ITEM CONTROL NUMBERS

Technically, any item identification number assigned by an activity for its own use is a Navy Item Control Number. To distinguish between NICNs that are authorized in supply transaction documents and those that are not, the term Local Item Control Number (LICN) is often used. A full explanation of the composition of NIINs, NICNs, and LICNs is contained in *Afloat Supply Procedures*, NAVSUP P-485.

COGNIZANCE SYMBOLS

Although cognizance symbols are not part of the NSN, they are used as supply management codes that identify the Navy inventory manager for the specific category of material requisitioned. This symbol consists of two parts, one numeric and one alphabetic. For example, the symbol for all Navy-owned bulk medical material is "9L."

FEDERAL SUPPLY CATALOG, MEDICAL MATERIAL SECTION

The Federal Supply Catalog contains all standard stock items available to agencies of the United States Government. It furnishes identification and management data for single-manager supply items. The sections of the catalog that are of special interest to the Hospital Corpsman are those dealing with medical items, as listed in the NAVSUP P-485, volume I, chapter 2. Each subsection deals with specific categories of material.

The following is a description of the subsections of Federal Supply Catalog, Medical Material, 6500 section:

- **Introduction**—provides a general overview of the contents and use of the catalog.
- **Alphabetical Index**—contains a list of item names, colloquial names, synonyms, common names, and trade names, referenced to index numbers, that help locate an item within the subsection.
- **Glossary of Colloquial Names and Therapeutic Index** (6505/6508 subsection only)—contains colloquial names, synonyms, and trade names arranged in alphabetical order and cross-referenced to appropriate National Item Names. Items are also classified by therapeutic use.

- **Identification List** (IL)—contains the following four sections:

1. **Preface**—Each subsection contains a preface that includes special instructions pertaining to that individual subsection.
2. **Alphabetical Index**—This list of National Item Names is cross-referenced to index numbers to help locate an item when the NSN is not known.
3. **National Stock Number Index**—This list of NSNs is arranged in numerical order and referenced to index numbers to help locate an item within a subsection.
4. **List of Items index number**—Some items are illustrated for clarity. Each item listed includes action codes; handling and/or storage codes, if any; NSN; and a brief description of the item.

- **Action Codes**—Additions, deletions, or revisions of published data are identified as follows:

N-new	—	indicates items not previously included in the basic publication, change bulletin, or change notice; or reinstatement of a previously deleted item.
C-change	—	indicates a change in data since the previous publication.
D-deletion	—	indicates an item that is no longer available.

- **Index Numbers**—Items are presented in alphabetical order; index numbers are assigned in ascending sequence within each pamphlet. They are used solely as a locator device and not in place of NSNs.

- **National Stock Number Index**—NIINs are listed in numerical order.

- **Descriptive Data**—Important distinguishing characteristics are stated in this section.

- **Description**—Information which appears below the item name and above the box in which the index number, NSN, and data are arranged. Operational data may appear as a footnote such as "cold weather use only."

- **Notes**—Information regarding item special storage and handling procedures are as follows:

B	—	corrosive or poisonous material
C	—	contains one or more component items of the nature described under "R" below; used in connection with assemblies only
F	—	subject to damage by freezing
G	—	requires refrigeration between 2° to 8°C (35° to 46°F)
I	—	flammable or oxidizing materials
M	—	an item containing potentially recoverable precious metals
P	—	an item with potency period or expiration date
Q	—	drugs or other item requiring security storage and Schedule III, IV, and V
R	—	alcohol, alcoholic beverages, precious metals, or other substances requiring vault storage and Schedule II
W	—	item must be kept frozen for preservation

- **Navy Management Data List**—This list contains all items in the subsection and shows unit of issue, price, and authorized substitutions. A separate Navy Management Data List is published for each Identification List.

PROCUREMENT

LEARNING OBJECTIVE: *Recognize the various supply levels, and recall requisition form completion and processing procedures.*

Procurement is the act of obtaining materials or services. Material may be procured by requisition (items with federal stock numbers) or open purchase (items without federal stock numbers, procured from nonfederal sources). Requisitions are most frequently used, but open purchase is used for procuring

nonstandard material and emergency items. In this section, we will cover supply levels, supply level terminology, requisition, requisition documents, purchase procedures, and the Uniform Material Movement and Issue Priority System (UMMIPS).

LEVELS OF SUPPLY

There must be some control over the level or quantity of supplies kept by medical departments. Without controls, policy changes or poor ordering procedures may result in some items being in short supply, while other items are stockpiled in quantities that would not be consumed for several years. To avoid such occurrences, it is necessary to develop rules governing stock levels.

Supply Level Terminology

Supply levels may be expressed in one of two ways: in numerical terms and in terms of months of usage. **Numerical** is expressed as the total amount of supplies on hand. **Months of usage** is the most commonly used measurement of supply levels. It is the best method to use in accounting for the amount of items that are used on a monthly basis. In expressing the supply level of any stock item, four measurements may be used: operating level, safety level, storage objective, and requisitioning objective.

OPERATING LEVEL.—This measurement indicates the quantity of an item that is required to sustain operations during the interval between requisitions or the receipt of scheduled successive shipments of supplies. The operating level should be based upon the length of the replenishment cycle. For example, if requisitions are submitted every 2 months, the operating level would be the quantity of the item that is consumed every 2 months. This level will vary for different items.

SAFETY LEVEL.—This measurement indicates the quantity of an item, over and above the operating level, that should be maintained to ensure that operations will continue if replenishment supplies are not received on time, or if there is an unpredictably heavy demand for supplies. This measurement simply provides a margin of safety.

STOCKAGE OBJECTIVE.—This measurement indicates the minimum quantity of a stock item that is required to support current operations. It is the sum of the operating level and the safety level. For example, if the operating level of an item is 80 units and the safety level is 20 units, the stockage objective would be to maintain 100 units of that item in stock at all times.

REQUISITIONING OBJECTIVE.—This measurement indicates the maximum quantity of a stock item that should be kept on hand and on order to support operations. It is the sum of the operating and safety levels and the quantity of an item that will be consumed in the interval between the submission of a requisition and the arrival of the supplies. Figure 13-1 illustrates the relationship between the various levels of supply.

Usage Data

The most accurate guide in determining supply requirements is past experience, as reflected in accurate stock records. Stock record cards (which will be discussed in detail later in the chapter) should be kept current to assist in the material usage notes. Stock records should tell you how much of each item has been used in the past. From this past usage data, you can make a reasonable projection of future usage rates. SAMS (SNAP Automated Medical System) is an additional management tool. SAMS is the current approved shipboard computer program used to track all aspects of medical supply.

REQUISITIONS

A requisition is an order from an activity that is requesting material or services from another activity. Except for certain classes of material listed in NAVSUP P-485 and P-437, all items ordered from the Navy Supply System, other military installations, the Defense Logistics Agency (DLA), and the Government Services Administration (GSA) will be procured using the MILSTRIP system. MILSTRIP requisitioning is based upon the use of a coded, single-line-item document for each supply transaction discussed in the paragraphs that follow.

DoD Single-Line Item Requisition System Document (Manual), DD Form 1348

DD Form 1348 (fig. 13-2) is used as a requisition; requisition follow-up, modification, or cancellation; and tracer request on overdue shipments sent by insured, registered, or certified mail. This form is available in two-, four-, and six-part sets as follows:

- The two-part set is used by nonautomated ships for requisition follow-up, modification, or cancellation, and tracer requests;
- the four-part set is used for requisitioning from shore activities; and

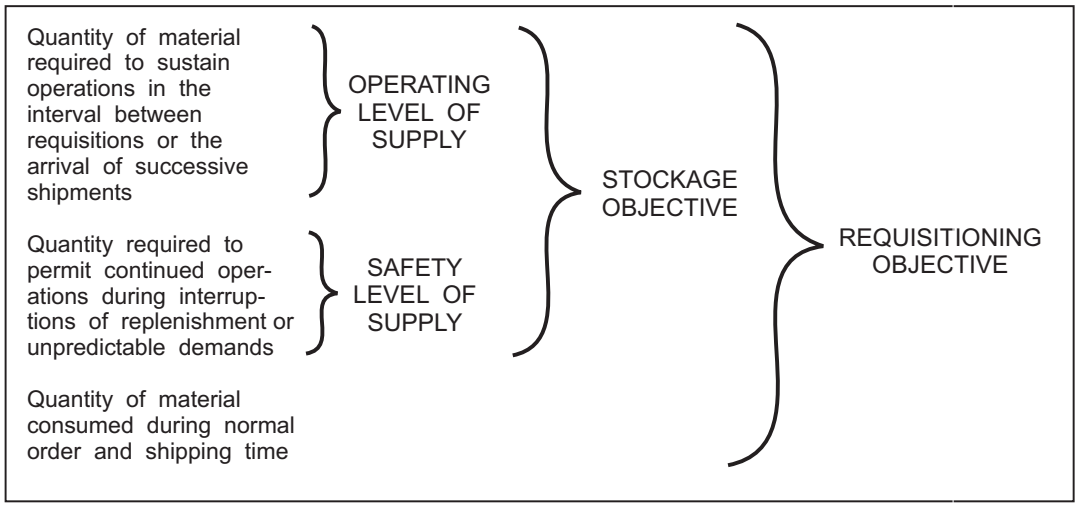


Figure 13-1.—Levels of supply.

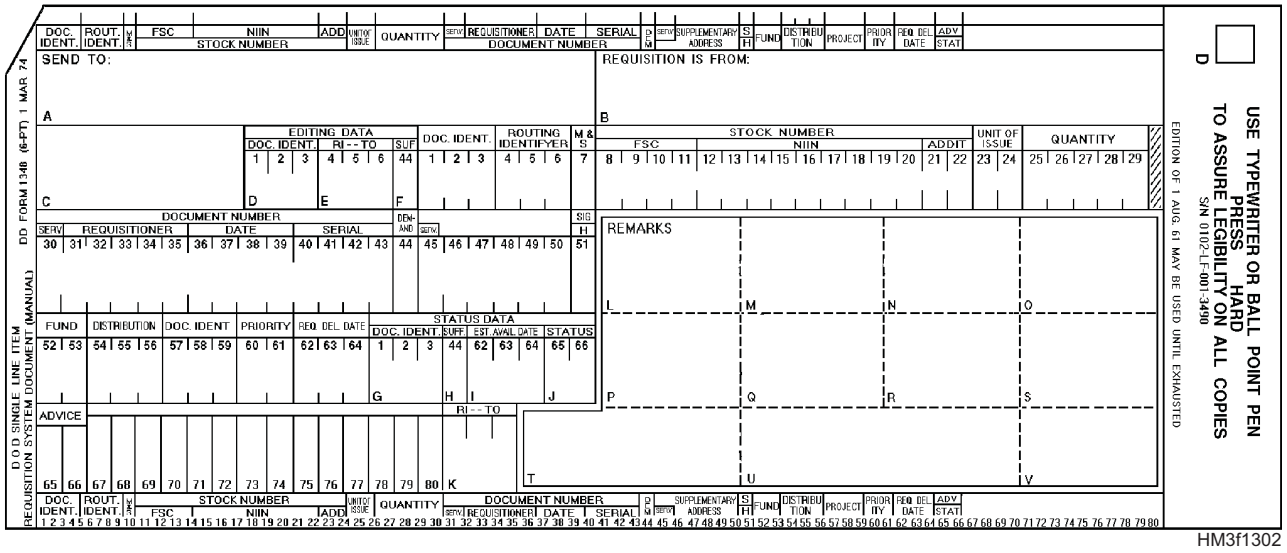


Figure 13-2.—MILSTRIP requisition document: DD Form 1348.

- the six-part set is used for requisitioning from other nonautomated ships (and from automated ships, when required).

Non-NSN Requisition (Manual), DD Form 1348-6

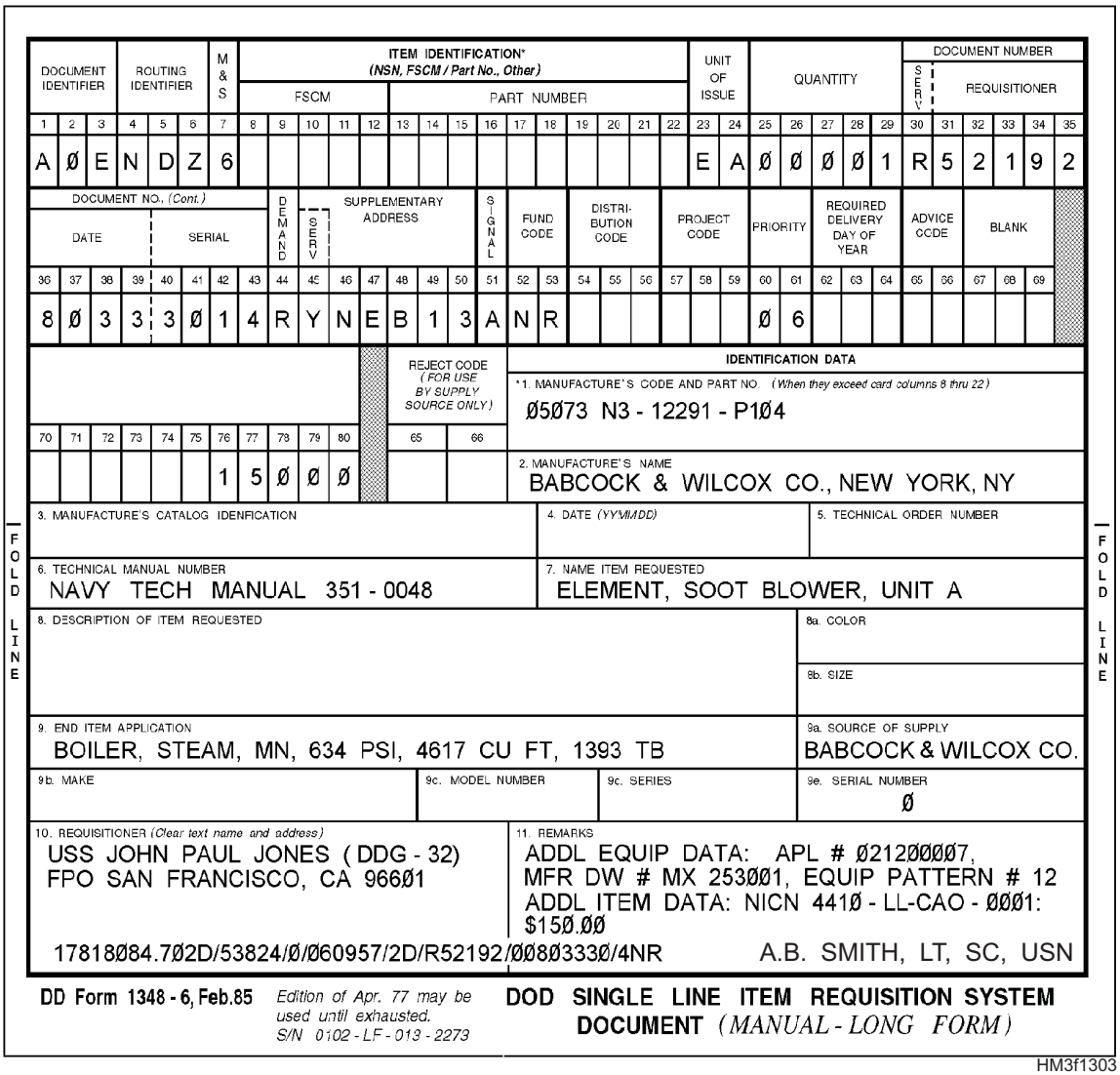
DD Form 1348-6 (fig. 13-3) is a six-part form used to requisition material that cannot be identified by an NSN, NATO stock number, or NICN other than permanent "LL"-coded NICNs. The form consists of two sections. The upper section includes essentially the same data elements as DD Form 1348. The lower section includes 10 data blocks for additional identification data.

Single-Line Item Consumption/Requisition Document (Manual), NAVSUP Form 1250-1

NAVSUP Form 1250-1 (fig. 13-4) is a seven-part multipurpose form used as a consumption document. It is also used as a MILSTRIP requisitioning document by nonautomated ships for procuring material or services from another ship, naval supply centers, naval supply depots, and Navy Inventory Control Point (NAVICP) Philadelphia.

Requisition and Invoice/Shipping Document, DD Form 1149

DD Form 1149 (fig. 13-5) is prepared for certain items that are excluded from MILSTRIP. These items are listed in NAVSUP P-485 and P-437. DD Form



DOCUMENT IDENTIFIER	ROUTING IDENTIFIER	M & S	ITEM IDENTIFICATION* (NSN, FSCM / Part No., Other) FSCM	PART NUMBER	UNIT OF ISSUE	QUANTITY	DOCUMENT NUMBER SERV	REQUISITIONER
1 2 3	4 5 6	7	8 9 10 11 12	13 14 15 16 17 18 19 20 21 22	23 24	25 26 27 28 29	30	31 32 33 34 35
A Ø E	N D Z	6			E A	Ø Ø Ø Ø 1	R	5 2 1 9 2

DOCUMENT NO. (Cont.) DATE	SERIAL	DEMAND	SERV	SUPPLEMENTARY ADDRESS	SIGNAL	FUND CODE	DISTRIBUTION CODE	PROJECT CODE	PRIORITY	REQUIRED DELIVERY DAY OF YEAR	ADVICE CODE	BLANK
36 37 38 39 40 41	42 43	44	45	46 47 48 49 50	51	52 53	54 55 56	57 58 59	60 61	62 63 64	65 66	67 68 69
8 Ø 3	3 3 Ø 1 4	R	Y	N E B 1 3	A	N R			Ø 6			

REJECT CODE (FOR USE BY SUPPLY SOURCE ONLY)	IDENTIFICATION DATA
70 71 72 73 74 75 76 77 78 79 80 / 65 66	*1. MANUFACTURE'S CODE AND PART NO. (When they exceed card columns 8 thru 22) Ø5Ø73 N3 - 12291 - P1Ø4
1 5 Ø Ø Ø	2. MANUFACTURE'S NAME BABCOCK & WILCOX CO., NEW YORK, NY

3. MANUFACTURE'S CATALOG IDENFICATION	4. DATE (YYMMDD)	5. TECHNICAL ORDER NUMBER

6. TECHNICAL MANUAL NUMBER	7. NAME ITEM REQUESTED
NAVY TECH MANUAL 351 - 0048	ELEMENT, SOOT BLOWER, UNIT A

8. DESCRIPTION OF ITEM REQUESTED	8a. COLOR
	8b. SIZE

9. END ITEM APPLICATION	9a. SOURCE OF SUPPLY
BOILER, STEAM, MN, 634 PSI, 4617 CU FT, 1393 TB	BABCOCK & WILCOX CO.

9b. MAKE	9c. MODEL NUMBER	9c. SERIES	9e. SERIAL NUMBER
			Ø

10. REQUISITIONER (Clear text name and address)	11. REMARKS
USS JOHN PAUL JONES (DDG - 32) FPO SAN FRANCISCO, CA 966Ø1	ADDL EQUIP DATA: APL # Ø212ØØØØ7, MFR DW # MX 253Ø01, EQUIP PATTERN # 12 ADDL ITEM DATA: NICN 441Ø - LL-CAO - ØØØ1: $15Ø.ØØ
17818Ø84.7Ø2D/53824/Ø/Ø60957/2D/R52192/ØØ8Ø333Ø/4NR	A.B. SMITH, LT, SC, USN

FOLD LINE FOLD LINE

DD Form 1348 - 6, Feb.85 *Edition of Apr. 77 may be used until exhausted. S/N 0102 - LF - 013 - 2273*

DOD SINGLE LINE ITEM REQUISITION SYSTEM DOCUMENT *(MANUAL - LONG FORM)*

HM3f1303

NOTE: DD FORM 1348-6 is a 6-part snap-out form with multicolored interleaved copies. It is perforated at fold line to permit folding to size of a requisition.

Figure 13-3.—Example of a Non-NSN Requisition (DD Form 1348-6).

1149 may be used as a requisitioning document or a receipt document. As a requisitioning document, use this form to procure GSA contract items such as medical books, journals, and standard and nonstandard BUMED-controlled items requiring local purchase action.

BUMED-CONTROLLED ITEMS

BUMED-controlled items are essential to preserve life (medications), are easily pilferable (hemostats, etc.), and/or have a high acquisition or replacement cost (CAT scan, X-Ray equipment). Requisition standard stocked BUMED-controlled items on DD Form 1348, and forward the request through the chain of command to the Naval Medical Logistics Command (NAVMEDLOGCOM) for technical review.

PROFESSIONAL BOOKS AND PUBLICATIONS

The listing of all books and publications that are required to be maintained at an activity can be found in NAVMEDCOMINST 5600.1 and NAVMEDCOM-INST 6820.1. GSA periodically makes open-end contracts that cover the procurement of books. All professional books and publications are procured under the provisions of these contracts.

PURCHASES

Ships' supply officers and commanding officers of ships without Supply Corps officers may obtain supplies or services by purchase on the open market.

1. REQ. DATE	2. DEPT. NO.	3. URGY	4. RDD	5. LOCATION	6. SIM	NON-SIM	7. ISSUE DATE	A. REQN. QTY.	B. REQN. NO.
6196	Ø692	B	62Ø6		☐	☑		ØØØØ2	6196-3456

8. NOUN NAME OR REF SYM	9. FPR	10. APL/AEL/CID	11. INV QTY	12. NIS	N/C	C. OBL AMT	D. POSTED
BLOCK	☐	-Ø16894216		☐	☑	264	S/R (REQN O/S)

JOB CONTROL NUMBER	13. UIC	14. WC	15. USN	16. EIC	17. EQUIP COSAL SUPPT'D	E. URG	MART	
	VØ5152	OE	Ø1ZØØØ	P31R	YES ☑ NO ☐	☐	☐	OPTAR LOG ✓
								S/R (ISSUE)

18. SC	19. COG	20. MCC	STOCK NUMBER 21. FSC	22. NIIN	23. SMIC	24. UI	25. QUANTITY	26. UNIT PRICE	27. EXTENDED PRICE	28. FUND
-J-	9N		5920	ØØ1604895		EA	2	132	264	CR

29. REMARKS

30. APPROVED BY: WALTER T. DOOR

31. RECEIVED BY:

1 2 3	4 5 6	7		30 31 32 33 34 35	36 37 38 39 40 41 42 43	44	45	46 47 48 49 50	51	52 53 54 55 56 57 58 59	60 61	62 63 64	65 66	67 68 69 70 71 72 73
AØA	R7P	3	V	VØ51526	19634856	R	V	Ø5851	B	9N	IK5	Ø6		
DOC IDENT	RTG IDENT	M&S	SUPPLY QTY	SVC	UIC	JUL DATE	SERIAL	DEM	SVC	SUPPL ADDRESS	SIG	FUND	DIST	PROJ	PRI	RDD	ADV
				DOCUMENT NUMBER													

SINGLE LINE ITEM CONSUMPTION/REQUISITION DOCUMENT (MANUAL)
NAVSUP FORM 1250-1 (7 PT) (REV.12/76) S/N 0108-LF-501-2506

HM3f1304

Figure 13-4.—MILSTRIP requisition document: NAVSUP Form 1250-1.

SHIPPING CONTAINER TALLY → 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

REQUISITION AND INVOICE/SHIPPING DOCUMENT

SHEET NO.	NO. OF SHEETS	5. REQUISITION DATE	6. REQUISITION NUMBER
		10 FEB 1998	SEE R52192-3041- BELOW

1. FROM: R52192 USS JOHN PAUL JONES (DDG-32)

2. TO: NØØ244 NSC SAN DIEGO, CA

3. SHIP TO - MARK FOR:
SUPPLY OFFICER
USS JOHN PAUL JONES (DDG-32)
FPO SAN FRANCISCO, CA

7. DATE MATERIAL REQUIRED

8. PRIORITY: 13

9. AUTHORITY OR PURPOSE

10. SIGNATURE: A. B. SMITH, LT, SC, USN

11a. VOUCHER NUMBER AND DATE

12. DATE SHIPPED

b.

13. MODE OF SHIPMENT

14. BILL OF LADING NUMBER

15. AIR MOVEMENT DESIGNATOR OR PORT REFERENCE NO.

4. APPROPRIATION AND SUBHEAD	OBJ. CL.	BUR. CONT. NO.	SUBAL. LOT	AUTHORIZATION ACCT'G ACTIVITY	TRANS. TYPE	PROPERTY ACCT'G ACTIVITY	COUNTRY	COST CODE	AMOUNT
1791804.702D	000	53824	B	060957	2D	R52192		003041----NU	SEE BELOW

ITEM NO. (a)	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICES (b)	UNIT OF ISSUE (c)	QUANTITY REQUESTED (d)	SUPPLY ACTION (e)	TYPE CONTAINER (f)	CONTAINER NOS. (g)	UNIT PRICE (h)	TOTAL COST (i)
	SERVICES AND MATERIALS FOR REPAIR OF:				REQN. SER. NO.			
	3ØØ1 IBM ELECTRIC TYPEWRITERS, Ser. Nos. 14-667421, 15-66744	JOB	1					$60.00
	3ØØ2 REMINGTON ELECTRIC TYPEWRITER, Ser. No. 336601	JOB	1					40.00

16. TRANSPORTATION VIA MATS OR MSTS CHARGEABLE TO

17. SPECIAL HANDLING

18. RECAPITULATION OF SHIPMENT	ISSUED BY	TOTAL CONTAINER	TYPE CONTAINER	DESCRIPTION	TOTAL WEIGHT	TOTAL CUBE
	CHECKED BY					
	PACKED BY					
				TOTAL		

19. RECEIPT: CONTAINERS RECEIVED EXCEPT AS NOTED; QUANTITIES RECEIVED EXCEPT AS NOTED; POSTED — DATE — BY

SHEET TOTAL

GRAND TOTAL

20. RECEIVER'S VOUCHER NO.

DD FORM 1 MAR 59 1149 (9-PT) 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

REPLACES EDITION OF 1 MAY 58 WHICH MAY BE USED — S/N 0102 - LF - 011 - 1801 — ORIGINAL

HM3f1305

Figure 13-5.—Requisition and Invoice/Shipping Document, DD Form 1149 (multiple requests).

Purchases are made by one of the following three methods:

1. Purchase order for purchases not in excess of $25,000 CONUS or $50,000 outside CONUS.
2. Imprest fund (funds authorized by TYPE commander for immediate purchases) for cash purchases of $500 or less.
3. Orders under indefinite delivery-type contracts and blanket purchase agreements (BPAs) that have been negotiated by shore activities.

A single requirement may NOT be divided with more than one purchase action for the purpose of avoiding monetary limitations. Procedures for purchases by ashore activities are provided in NAVSUPINST 4200.85.

UNIFORM MATERIAL MOVEMENT AND ISSUE PRIORITY SYSTEM (UMMIPS)

The UMMIPS system assigns priorities to material movement. Issuing these priorities is a integral and vital part of MILSTRIP. In the movement and issue of material, it is necessary to establish a common basis to determine the relative importance of competing demands for resources of logistics systems. The method for determining the relative importance and urgency of logistics requirements is provided by the priority designator (PD), a two-digit code that ranges from 01 (highest) to 15 (lowest). The priority designator is determined from the urgency of need designator (UND) and the Force/Activity Designator (F/AD), as shown in table 13-1.

Force/Activity Designator (F/AD)

F/AD is a Roman numeral (I-V) that identifies and categorizes a force or activity on the basis of its military importance as shown below:

I In Combat

II Positioned for Combat

III Positioned to Deploy/Combat

IV Other Active and Selected Reserve Forces

V All Other

Table 13-1.—Listing of Priority Designators

Force/Activity Designators*	URGENCY OF NEED DESIGNATORS*		
	Unable to Perform Mission A	Impaired Operational Capability B	Routine C
I In Combat	1	4	11
II Positioned for Combat	2	5	12
III Positioned to Deploy/Combat	3	6	13
IV Other Active & Selected Reserve Forces	7	9	14
V All Other	8	10	15

Numeric Priorities

*For additional detailed guidance concerning Force/Activity Designators and Urgency of Need Designators, see OPNAVINST 4614.1.

Urgency of Need Designator (UND)

The Urgency of Need Designator (UND) consists of an uppercase letter "A," "B," or "C." It is selected to indicate the relative urgency of a force's or activity's need for a required item of material. Assignment of UND is the responsibility of the force or activity making the requisition and is derived according to NAVSUP P-485. UNDs and their associated definitions are as follows:

UND		Definition
A	(1)	Requirement is immediate.
	(2)	Without material, the activity is unable to perform one or more of its primary missions.
	(3)	The condition noted in (2) above has been reported by established, not operationally ready supply/ casualty report (NORS/CASREPT) procedures.
B	(1)	Requirement is immediate or it is known that such a requirement will occur in the immediate future.
	(2)	The activity's ability to perform one or more of its primary missions will be impaired until the material is received.
	(3)	Deals with Q-COSAL Reactor Plant components.
C	(1)	Requirement is routine.
	(2)	Combat Logistics force.

Priority Designator (PD)

PD is a two-digit number (01-highest to 15-lowest) determined by using the table of priority designator shown in table 13-1. For example, if your ship is assigned an F/AD of III and your requirement is of a routine nature, assign priority 13.

In addition to providing standardized criteria for assigning priorities, UMMIPS provides acceptable maximum processing times for use by supply activities in furnishing material. Processing time standards and additional codes used in MILSTRIP and UMMIPS are included in NAVSUP P-485. For additional detailed guidance concerning Force/Activity Designator and Urgency of Need Designator, see OPNAVINST 4614.1.

PREPARING A MILSTRIP REQUISITION

LEARNING OBJECTIVE: *Recognize MILSTRIP requisition procedures and how they are used for material receipt, custody, and stowage.*

MILSTRIP uses coded data for processing requisitions with automatic data processing equipment. No matter what type of requisitioning document you use, use extreme care in selecting and entering the coded data elements. These codes apply to all levels of supply. Although they are too numerous for all to be included in this chapter, the codes can be found in the appendices of NAVSUP P-485. The following general rules apply to MILSTRIP requisition:

- Enter data by ball-point pen or typewriter. Do not use pencil; pencil marks can cause errors when the requisition is processed through mark sensing equipment.
- Data should be entered between the "tic" marks on the form. However, it is mandatory that entries be included within the data fields to which they pertain.
- To eliminate confusion between the numeral zero and the letter "O," use the communications zero (ϕ) on MILSTRIP requisitions when zeros are applicable.

Specific details for completing DD Form 1348 and NAVSUP Form 1250-1 can be found in NAVSUP P-485.

MATERIAL RECEIPT, CUSTODY, AND STOWAGE

For every procurement action taken, there is a receipt action that follows. Once the supplies are received, they must be identified, checked, and distributed to the appropriate storeroom or department, and documentation as to their receipt, custody and stowage must be accomplished.

Material Receipt

As in every situation, responsibility for actions taken must be assigned to key personnel. In the receipt of government-owned materials, responsibility for receipts takes on an added importance because of the many types of material receipts and the required accountability.

Receipt Documentation

There are several types of receipt papers, and which type is used depends upon the manner in which the material was requested, the issuing activity, and the modes of transportation used in delivery. The most commonly encountered receipt is the DoD Single Line Item Release/Receipt Document, DD Form 1348-1, (fig. 13-6). Regardless of the type of receipt document, the end-use receiver must

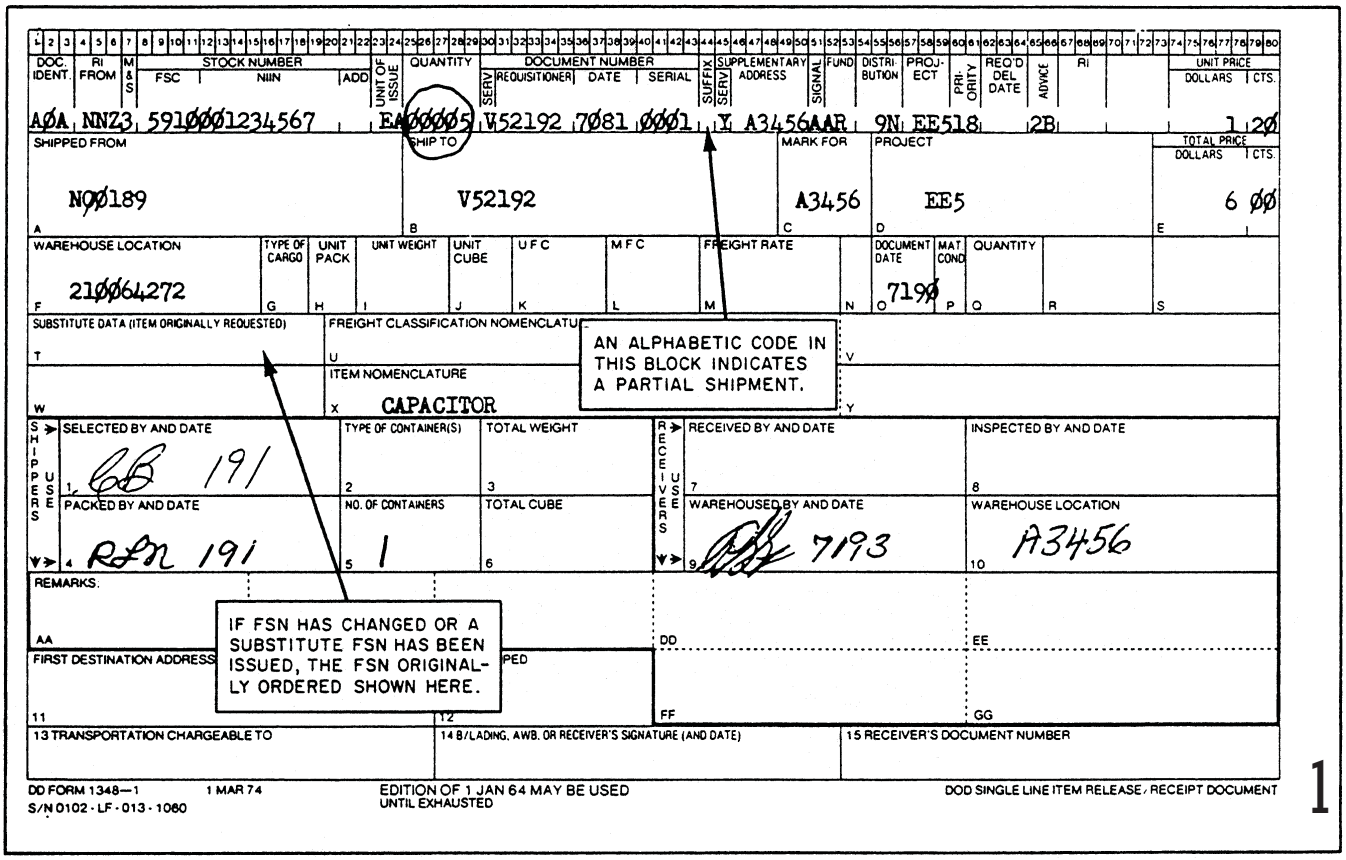
1. date the document upon receipt,
2. circle the quantity accepted, and
3. sign the document to indicate receipt.

Receiving Procedures

Small quantities of stores received on a daily basis require no special preparations for receipt. Stock large quantities of stores in a central area out of the traffic flow and hold there until preliminary identification and package count are completed. Then sort them according to the department or storeroom to which they will be distributed.

Report of Discrepancy

Item or packaging discrepancies attributable to the shipper (including contractors, manufacturers, or vendors) should be reported on the Report of



HM3F1306

Figure 13-6.—DoD Single Item Release/Receipt Document, DD Form 1348-1.

Discrepancy (ROD), SF 364, by the receiving activity. The purpose of the ROD is to determine the cause of the discrepancy, effect corrective action, and prevent recurrence. When both item discrepancies and packaging discrepancies are noted on the same shipment, both blocks on the top of SF 364 should be checked and the types of discrepancies noted. The types of discrepancies required to be reported are described in chapter 4 of NAVSUP P-485. Detailed instructions for preparing and distributing of RODs are contained in the current version of SECNAVINST 4355.18.

Custody

The term **custody** refers to the responsibility for proper care, stowage, and use of Navy material and records pertaining to such. Stored material is required to be kept under lock and key, except when the material is too numerous or too large to make such stowage impractical. Lock storeroom spaces securely when not in use.

Stowage

Material in storerooms and other designated stowage areas should be arranged to

- ensure maximum use of available space,
- provide orderly stowage and ready accessibility,
- prevent damage to spaces or injury to personnel,
- reduce the possibility of material loss or damage,
- make it easy to issue the oldest stock first, and
- make it easy to inventory.

The preceding criteria and a “common-sense” approach will enable storeroom personnel to achieve stowage efficiency. To the maximum extent that available space permits, you should adhere to the following guidelines when stowing material:

- Locate heavy bulk material and materials handling equipment near hatches or doors to minimize the physical effort required for loading, stowage, and breakout.

- Locate light bulky materials in storerooms with high overhead clearances for maximum use of available space.
- Segregate materials that are dissimilar in type or classification.
- Locate frequently requested materials as close as possible to the point of issue.
- Locate shelf-life items in a readily accessible area to facilitate periodic screening.
- Install appropriate stowage aids (flashlight, paper, and pencil) in spaces where they are readily accessible.
- Make aisles at least 30 inches wide, if possible.
- Arrange material with identification labels facing outward to make issue and inventory easy.
- Avoid multiple locations for the same item.

If you follow the preceding criteria and guidelines, you should have no problems in maintaining your spaces and issuing and inventorying materials.

SPECIAL STOWAGE OF ITEMS

At times, you will have items that require special stowage. The *Naval Ships' Technical Manual (NSTM)* and the *Hazardous Materials Information System (HMIS)*, DoD 6050.5, outline the requirements for shipboard stowage of dangerous materials and lists the materials under each classification. We will now cover the classifications of material and discuss storage requirements for special types of material.

Hazardous Material

Hazardous material includes all types of compressed gases and materials that present a fire hazard or are otherwise dangerous. Paint and oil constitute the bulk of material in this category. Paint and flammable liquid storerooms are normally provided with alarm and CO_2 smothering systems that can be activated by automatic temperature-sensitive devices inside storerooms and by manual controls outside storerooms. A flooding system operated manually outside storerooms is an additional safety factor. These storerooms are located, when practical, below the full-load water line, near either end of the vessel, but not adjacent to a magazine. They are equipped with watertight doors that must be locked and dogged when not in use.

Compressed Gases

Stow compressed gases on the weather deck, and securely fasten them in a vertical position. Protect the cylinder valves from accumulations of ice and snow, and screen the cylinders from direct rays of the sun. NAVSUP P-485 contains more specific information concerning handling compressed gas cylinders.

Acid

Liquid acid, unless classified as safe material, is stowed in an acid locker. Acid lockers are leak-proof and lead-lined boxes, chests, or lockers specifically designed for stowing bottles or carboys of acid. Medical acids may be stored in a medical storeroom.

Alcohol

Alcohol should be stowed in a locked container in the paint and flammable liquid storeroom, to which only the supply officer (or other officer designated in writing by the commanding officer) has the key or combination.

SHELF-LIFE MATERIAL

Shelf-life material is subject to deterioration. These items are assigned a **shelf-life code** listed in the NMDL. The code denotes the shelf-life span of material from the date of manufacture to the date of disposal, or date of testing according to the inventory manager's instructions to extend the shelf life. Type I codes (alpha) apply to items for which shelf life cannot be extended. Type II codes (numeric) apply to items for which shelf life may be extended.

OTHER REPAIR PARTS

Repair parts should be stored in their original containers. With today's improving techniques and the material used in packaging, repair parts may be stored for a considerable time without damage from dust, shock, or humidity.

STOREROOMS

When you are in charge of a storeroom, you are also responsible for maintaining cleanliness of the space. Before you secure each night, sweep the storeroom and remove all trash. Periodically clean bins, shelves, ventilation ducts, and fans.

The overall condition of your space is also your responsibility. Rust is an ever-present enemy, and constant vigilance is required to keep it under control. Rust spots should be chipped, wire brushed or sanded, primed, and spot painted. Tighten loose bolts promptly to prevent possible damage to the storeroom or its contents. Examine pipes, valves, electrical systems, watertight fittings, and fire-fighting equipment daily, and report any defect to the supply officer.

Before getting underway into open seas, thoroughly inspect and secure storerooms to prevent stores from shifting due to the ship's motion. Lash bulk stores to bulkheads, stanchions, or battens, and secure the fronts of open bins and shelves to prevent stores from falling out on the deck. Unless approval is obtained from the commanding officer, do not stow personal gear in storerooms designated for supplies.

INVENTORY

LEARNING OBJECTIVE: *Recognize specific characteristics of each type of supply inventory, how inventories are to be conducted, and procedures for inventory reconciliation.*

Throughout this section, we will use various terms to refer to inventory control procedures. Some of these terms are defined here to help you understand them and apply them correctly. NAVSUP P-485 provides definitions for all the terms used in inventory control.

DEFINITIONS

In the following paragraphs, we will discuss definitions that are used in the supply system.

Inventory

Inventory is the quantity of stocks on hand for which stock records are maintained, or the function whereby the material on hand is physically inspected and counted and stock records reconciled accordingly.

Order and Shipping Time

Order and shipping time refers to the time elapsing between submitting a requisition and receiving the material requisitioned (also called **procurement lead time**).

Average Endurance Level

Average endurance level refers to the quantity of material normally required to be on hand to sustain operations for a stated period without resupply.

High Limit (Requisitioning Objective)

High limit is the maximum quantity of material to be maintained on hand and on order to sustain current operations normally for 9 months.

Low Limit (Reorder Point)

Low limit (reorder point) is the least amount of the stock required to be left on hand before the need to reorder is indicated.

Not Carried (NC) Items

Not carried (NC) items are items not stocked in storerooms or for which stock records are not maintained.

Not in Stock (NIS)

Not in stock (NIS) are items carried in stock but not on board when demand occurs.

Demand

Demand refers to the request for an NC item that will be procured or an issue of a stock item.

Frequency of Demand

Frequency of demand refers to the number of requests for an item within a given time frame, regardless of the quantity requested or issued.

Integrated Logistics Overhaul (ILO)

The ILO is an overhaul procedure divided into several phases, designed to weed out obsolete and unused items.

TYPES OF INVENTORIES

There are several types of inventories, each with a specific purpose. These types of inventory are bulkhead-to-bulkhead, specific commodity, special material, spot, velocity, and random sampling.

Bulkhead-to-Bulkhead

A bulkhead-to-bulkhead inventory is a physical count of all the material aboard a ship or within a specific storeroom. A bulkhead-to-bulkhead inventory of a specific storeroom is conducted when a random sampling of that storeroom fails to meet the inventory accuracy rate of 90 percent.

Specific Commodity Inventory

The specific commodity inventory is a physical count of all items under the same cognizance symbol or federal supply class (such as 6515/6505), or that support the same operational function (e.g., bandages, IV fluids, needles, etc.).

Special Material Inventory

A special material inventory requires the physical count of all items that, because of their physical characteristics, costs, or other reasons, are specifically designated for separate identification and inventory control. Special material inventories include but are not limited to stocked items designated as classified or hazardous. Physical inventory of such material is required on a scheduled basis, as prescribed in the NAVSUP P-485.

Medical supplies are examples of both the specific commodity and special material inventories.

Spot Inventory

A spot inventory is an unscheduled type of physical inventory to verify the existence of a specific item. It is usually conducted when a requisition is returned showing the item is not in stock but the stock records indicate the item is on hand. A spot inventory is also conducted when directed by higher authority or when a specific item has been found to be defective.

Velocity Inventory

A velocity inventory is based on the premise that the faster an item moves, the greater the room for error. This type of inventory is required on items with a relatively high turnover rate.

Random Sampling Inventory

A random sampling inventory is considered to be part of the annual scheduled inventory program. It is done to measure the stock record accuracy for a segment of material on hand.

INVENTORY PROCEDURES

Proper inventory procedures mandate a complete and correct item count. You must ensure that the total quantity of each item is determined as accurately as possible. Keeping in mind that inventories are conducted to bring stock and stock records into agreement, you can see the importance of a complete, accurate, and legible inventory. Documents authorized for conducting inventory counts of stock material include NAVSUP 1075 (whether or not maintained as locator records) and machine or manually prepared listings. Copies of *Stock Record Card, Afloat,* NAVSUP 1114, even when maintained in storerooms, are not to be used as inventory count documents.

Promptly upon completion of the physical inventory and before matching inventoried quantities against stock record balances, review the inventory documents to ensure that

- all items scheduled for inventory have been counted or verified as nonexistent,
- quantities counted are legibly recorded and compatible with related units of issue,
- all locations applicable to the inventory segment have been checked,
- "added" items are adequately identified and legibly recorded,
- items are documented in National Item Identification Number sequence, and
- documents are dated and initialed.

RECONCILIATION OF COUNT DOCUMENTS AND STOCK RECORDS

Upon completion of the physical count and review of the count documents (documents with the actual numerical count of the items), the next step in the inventory process is to reconcile count documents with the stock records. This is done to determine if a difference exists between the physical count and the amount recorded on stock records.

When the count documents are correct and complete, compare them, item by item, with the applicable stock records to determine whether differences exist. If no differences exist, post the matched count cards or items in the inventory listing to

the applicable stock record. Enter the Julian date (numerical day of the year) of the inventory and the notation "INV" in the **DATE & SER/WCC** column, and enter the inventory quantity in the **ON-HAND** column. The inventory quantity and the on-hand number should match. See figure 13-7. If differences exist in the on-hand quantity, locations, or other stock record data, reconcile such differences using the procedures outlined in NAVSUP P-485.

STOCK RECORD CARDS

LEARNING OBJECTIVE: *Recall how to prepare and post stock record cards.*

Without stock record cards, it would be impossible to know if there were adequate stocks of material necessary for the operation of the medical department of a ship. Procurement of stock must be based on the information contained on the stock record cards. Use of approved computer programs are encouraged. Manual stock record cards are discussed in the paragraphs that follow.

The two stock record cards most commonly used in recording usage data are the *Stock Record Card, Afloat*, NAVSUP 1114, and the *Stock Record Card*. These cards are maintained stock records for all items of stocked material.

DESCRIPTION OF NAVSUP 1114

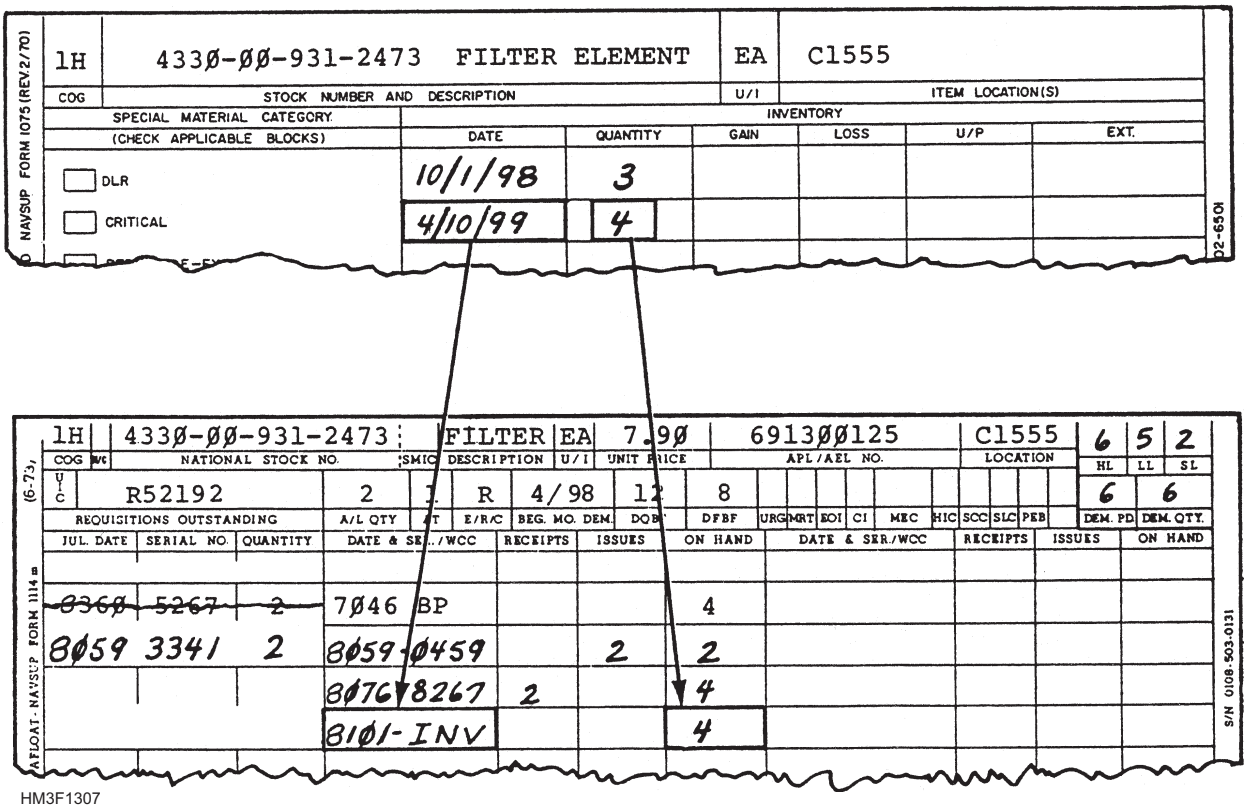
The pre-printed captions appearing on the top line and at the bottom of the NAVSUP 1114 are identical to each other, and most of the captions are familiar and self-explanatory. Additional information on some of the top- and second-line data elements may help you understand the captions, as well as the source and use of the data shown.

Material Control Code (MCC)

The material control code (MCC) is a single alphabetic character assigned by the inventory control manager to segregate items into more manageable grouping of fast-, medium-, or slow-moving items, or to relate to field activities special reporting and control requirements. This is a first-line entry and is mandatory for repairable items.

Allowance Parts List/Allowance Equipage List (APL/AEL)

The APL/AEL is a system for numbering the repair parts and equipment-related consumable items. If the



HM3F1307

Figure 13-7.—Posting inventory to stock records

Integrated Stock List (ISL) indicated that more than one AEL or APL applies to the same item, enter the letter "M" instead of the AEL/APL number. Enter "General Use" or "GUCL" for non-equipment-related consumables.

Location

Location tells each area in which the item is stored.

High Limit, Low Limit, Safety Level (HL, LL, SL)

High limit, low limit, and safety level quantities are computed in accordance with NAVSUP P-485 and recorded on the NAVSUP 1114.

Allowance List Quantity (A/L QTY)

Allowance list quantity (A/L QTY) is filled in for items on the AMAL/ADAL and left blank for non-allowance items.

Allowance Type Code (AT)

The AT code is assigned by the Integrated Logistics Overhaul (ILO). It is a single-character numeric code based on the item use, requirement to be carried, or usage rates. When an item is added between ILOs, assign the appropriate AT code.

E/R/C Codes

The E/R/C codes are used for equipage items (E), repair parts and equipment-related consumables (R), or for general-use consumables (C). Equipage items (E) are for special accounting class 207 ships only.

BEG.MO.DE.

The BEG.MO.DE codes are the beginning date of the demand period, generally the date of the last ILO. When the original (ILO-prepared) card is filled and a new card is prepared, bring this date forward to the new card with the demand and frequency of demand recorded on the original card. When a card is prepared between ILOs, the demand date is the date of the initial requisition.

Demand Frequency Brought Forward (DFBF)

The demand frequency brought forward (DFBF) code is the total brought forward from a filled stock record onto a new stock record.

URG

The URG code is a checkmark or "X" if the item is listed in the Consolidated Afloat Requisitioning Guide Overseas (CARGO).

MRT

The MRT code is a checkmark or "X" if the item is listed in the SERVMART shopping list of the local supply support activity.

Economic Order Item (EOI)

The economic order item (EOI) is a checkmark or "X" if the item is listed as an economic order item (low-cost item that may be ordered in a 90-day quantity if cost does not exceed $40).

Critical Item (CI)

The critical item (CI) is a checkmark or "X" if the item is listed as a critical item.

Military Essentiality Code (MEC)

The military essentiality code (MEC) is indicated in the Coordinated Shipboard Allowance List (COSAL) stock number sequence list (SNSL) for repair parts and equipment-related consumables.

Security Classification Code (SCC)

The security classification code (SCC) is used when applicable.

Shelf-Life Code (SLC)

The shelf-life code (SLC) is used when applicable.

Pre-Expended Bin (PEB) Item

The PEB code is a checkmark or "X" used on the NAVSUP 1114 when the item is designated as a pre-expended bin item (e.g., nuts, bolts), or when the unit of issue is large.

Requisition Outstanding

The requisition outstanding code is the Julian date, serial number, and quantity applicable to each procurement document.

PREPARING NEW CARDS

When the original card is filled, prepare a new card, duplicating the stock item information (except for usage data). Enter the beginning date on the new card. Bring forward the demand quantity and frequency demand totals from the old card to the new card. Also bring forward any requisitions still outstanding. Retain the old card, and file it according to local policy.

POSTING PROCEDURES

Post stock record cards daily as receipt and issue documents are received. Proper posting procedures include comparing the following data elements on receipt documents with those on the stock record cards:

- Cognizance symbols
- NSN
- Unit of issue
- Unit price
- Storage location
- Quantity received with quantity requisitioned

If the data elements on the receipt documents and the stock record card are in agreement, enter the Julian date of the receipt and the serial number of the related requisition in the DATE & SER/WCC column. Enter the quantity received in the RECEIPTS column, and increase the balance in the ON-HAND column by the quantity received. Draw a single line through the applicable requisition data for a full receipt (see fig. 13-8). For a partial receipt, if there is a suffix code in block 44 of DD Form 1348-1, draw a single line through the quantity and write the outstanding quantity next to it (fig. 13-8). If there is no suffix code in block 44, consider the requisition as complete. For supplies received in excess of the requisitioned amount, refer to NAVSUP P-485.

CONTROLLED SUBSTANCES

LEARNING OBJECTIVE: *Recall security and inventory procedures for controlled substances.*

Naval medical facilities dispensing pharmaceuticals range from large medical centers ashore to small sickbays aboard ships of the fleet. The custodial responsibility of controlled substances is vested in the commanding officer. An officer of the Medical Department or, in such an officer's absence, a commissioned officer designated by the commanding officer, keeps all unissued controlled substances in a separate, locked compartment. Controlled substances include tranquilizers, alcoholic beverages, alcohol, hypnotics, stimulants, and narcotics that require special custodial care. Medicinals are designated controlled substances by the symbol "Q" or "R" in the notes column of the Federal Supply Catalog. The Force

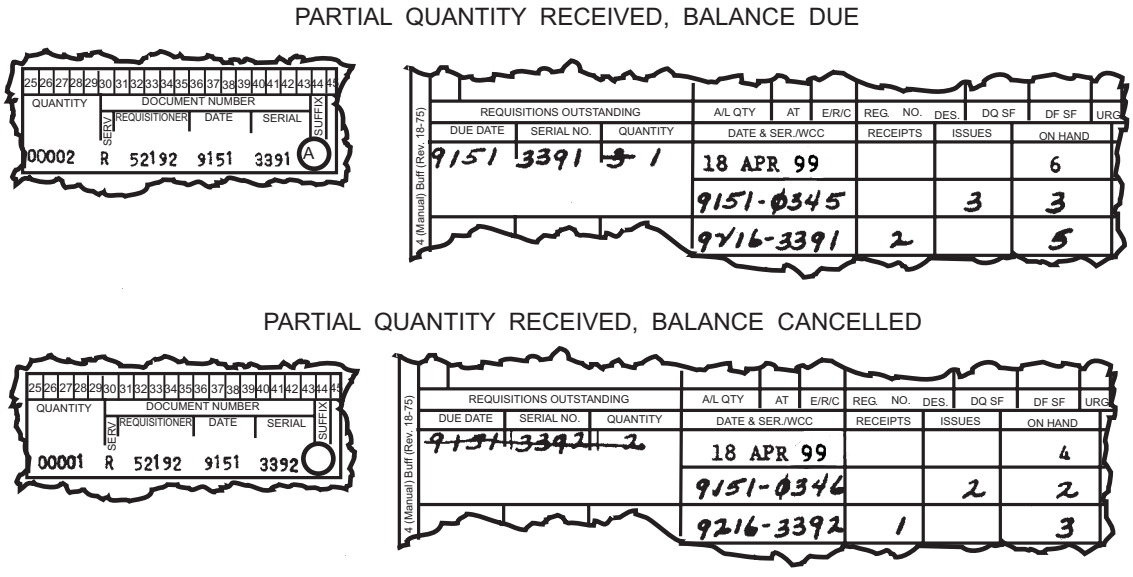


Figure 13-8.—Posting partial quantities to stock records.

Medical Officer also has authority to designate a medicinal as "controlled."

BULK CUSTODIAN

The commanding officer appoints in writing a commissioned officer to serve as the bulk custodian. This officer is responsible for and maintains custody of all bulk controlled substances.

SECURITY

Security of controlled substances is of utmost importance. Therefore, access to controlled medicinals is limited to the bulk custodian and the senior medical department representative (SMDR). Only individuals whose official duties require access to such spaces will be provided the safe combinations.

ACCOUNTABILITY

The bulk custodian and the SMDR are responsible for the receipt and custody of controlled substances. Each unit must maintain a detailed record of the receipt, transfer, survey, dispensing, and expenditure of controlled substances in accordance with MANMED, chapter 21.

INVENTORY BOARD

Monthly, or more frequently if necessary, the Controlled Substances Inventory Board will conduct an unannounced inventory of controlled substances. The commanding officer appoints three members to this board, at least two of whom are commissioned officers. The third member is an E-7 or above. The officer having custodial responsibility is not appointed to the board. After the board conducts the monthly inventory, it will submit a report to the commanding officer.

SURVEY OF CONTROLLED SUBSTANCES

The survey or inspection of the controlled substance inventory will be much easier if you adhere to proper documentation procedures. Destroy controlled substances in the presence of at least one member of the inventory board. Make appropriate entries to the stock records and the Controlled Substances Log. Items are destroyed in a manner that ensures total destruction and prevents subsequent use. The method of destruction must meet federal, state, and local environmental pollution control standards.

PROPERTY SURVEYS

A property survey is the procedure that is used when Navy property or Defense Logistics Agency material is lost, damaged, or destroyed. The purpose of a survey is to determine who or what is responsible for the loss, and to determine the actual loss to the United States Government. To make a true determination, the facts surrounding the loss or damage must be thoroughly investigated in a timely manner. The forms discussed in the following paragraphs are used in connection with survey procedures.

FINANCIAL LIABILITY INVESTIGATION OF PROPERTY LOSS, DD FORM 200

The *Financial Liability Investigation of Property Loss,* DD Form 200, is used if personal responsibility is evident, and if the commanding officer or higher authority so directs.

For more detailed information about the survey procedures, refer to the NAVSUP Manual, volumes I and II.

CONTINGENCY SUPPLY BLOCKS

LEARNING OBJECTIVE: *Recall assemblage and management procedures for medical contingency supply blocks.*

At some point in your career, you may be assigned to one of the six types (surgical, medical regulating, preventive medicine, specialist support, special psychiatric rapid intervention (SPRINT), or humanitarian support) of Mobile Medical Augmentation Readiness Teams (MMART), to a fleet hospital, or to some other contingency-related unit. MMARTs are specialty units that can be deployed anywhere in the world on short notice. The *Medical Augmentation Program (MAP),* BUMEDINST 6440.5, gives detailed information on policies, procedures, and responsibilities on the various types of teams. These specialty units require supplies and equipment that may not be available or are in limited supply in the area to which deployed. To circumvent this problem, contingency supply blocks have been established.

Contingency supply blocks consist of functionally packaged medical and dental equipment and supplies. Each block is assembled to meet the needs of a specific

unit. For example, a surgical supply block contains enough equipment to establish one operating room and sufficient supplies for 100 major surgical cases. BUMEDINST 6440.6, *Mobile Medical Augmentation Readiness Team (MMART) Manual,* contains information about several other blocks and their support capabilities.

ASSEMBLING THE BLOCK

The contents of each contingency supply block are outlined in an Authorized Medical Allowance List (AMAL) specific to that block. The Naval Medical Logistics Command (NAVMEDLOGCOM) is responsible for developing, publishing, maintaining, and coordinating a comprehensive review of all AMALs on at least an annual basis. The AMAL is the basic source document used to sustain supply block management. The preface of the AMAL contains instructions for maintaining, packing, and marking the block.

MANAGING THE BLOCK

Contingency supply blocks contain dated, shelf-life, or deteriorative items such as pharmaceuticals, intravenous solutions, and prepackaged items. Proper management of the block ensures operational readiness. Dated items in the block must have an expiration date sufficiently far in the future to allow for a lengthy deployment (up to 6 months). The requirement for monthly status and quarterly readiness reports ensures the designated supply blocks are ready for rapid deployment. This reporting process also allows the team members to become familiar with the contents of the block and the operability of all equipment.

Navy medicine's primary mission—and most important responsibility—is to provide combat-ready professional medical personnel to support the Navy and Marine Corps team. A highly effective logistic management program is the cornerstone for any deployed mission.

SUMMARY

In this chapter we identified Naval Supply manuals and publications. We introduced the Federal Supply Catalog System, and we discussed the proper procedures used to estimate supply needs, procure supplies and material, and account for supplies and operating funds. We also discussed the several types of inventory used in the Navy and the proper procedures for conducting each inventory, as well as the importance of stock record cards and the information required to be recorded on them. Finally, we identified the importance of and specific procedures for safeguarding controlled substances.

CHAPTER 14

ADMINISTRATION

Although most of the their duties are performed in a clinical environment, Hospital Corpsmen may be assigned to clerical positions aboard ship, assigned to duty with the Fleet Marine Force, or detailed to staff duty where a knowledge of administrative procedures and reports is a must. Handling, correcting, and using official directives and publications are important administrative duties. The efficiency of your office depends upon the currency of its publications and directives and how well you know them.

As you progress in rate and assume greater responsibilities, you will be required to maintain the activity's Medical Department Journal, and various logs, records, and directives. Additionally, you may be required to draft, type, and file correspondence. You will use Navy directives and publications more and more as you learn your job. You may also be required to maintain computer data for command use.

In this chapter we will cover medical reports, logs, and records commonly used by the Navy Medical Department. We will also discuss the maintenance and disposal of instructions and notices, preparation of correspondence, and filing procedures. Additionally, we will discuss the organization of the Fleet Marine Force and Fleet Hospitals. Finally, we will discuss the steps required for the development of both a command medical readiness plan (to include Mobile Medical Augmentation Readiness Team (MMART) and unit augmentation) and a joint medical operation plan.

REPORTING REQUIREMENTS

LEARNING OBJECTIVE: *Recognize Medical Department reporting requirements.*

As a member of the Medical Department, whether in a clinic, on a ship, or working sick call, your duties may include the maintenance of various logs and the preparation of reports required by higher authority. These reports are in the *Manual of the Medical Department* (NAVMED P-117) and in the current version of BUMEDINST 5210.9. BUMED has distributed numerous forms to facilitate reporting, recordkeeping, and administrative efficiency throughout the Medical Department. Specific instructions for management of reports and forms are covered in the current version of BUMEDINST 5210.9.

MEDICAL DEPARTMENT JOURNAL

Medical Department activities afloat are required to keep a journal, referred to as the Medical Department Journal. This journal contains a complete, concise, chronological record of events of importance or historical value concerning the Medical Department (other than medical histories of individuals). It lists personnel entered onto or deleted from the binnacle or sick list; reports of personnel casualties, injuries, and deaths; results of inspections of fresh provisions; training given to nonmedical personnel; stretcher bearers assigned; results of inspections of medical equipment, battle dressing stations, gun bags, and stretchers; receipt of medical supplies; and other general information of significance. The journal is signed daily by the senior medical officer, when assigned, or the senior medical department representative (SMDR). The journal is a permanent record and is retired in accordance with the current version of SECNAVINST 5212.5.

REPORTS TO THE OFFICER OF THE DECK OR DAY (OOD)

In addition to being entered into the Medical Department Journal, any other important occurrences are reported by the senior representative of the medical activity to the OOD (or other proper official) for entry into the duty log or journal of the command. Items such as injuries or death of personnel and damage, destruction, or loss of Medical Department property are reported. The names of patients in serious condition are reported directly to the commanding officer and the OOD, with the information necessary for notification of the patient's next of kin.

SICK CALL TREATMENT LOG

A log referred to as the Sick Call Treatment Log is maintained for each ship or activity. The log contains each patient's reporting date and time, name, rate, social security number, command, division, complaint, diagnosis, treatment, disposition, and departure time from sick call. When full, the log is retired in accordance with SECNAVINST 5212.5.

BINNACLE LIST

The Binnacle List, NAVMED 6320/18, is used to excuse an individual from duty for a period of 24 hours or less. This report is prepared by the senior medical department representative on board and should be submitted to the commanding officer no later than 0930 each day. This form contains a list of individuals recommended to be excused from duty because of illness. The list is approved by the commanding officer, and no names may be added without the CO's permission.

MORNING REPORT OF THE SICK

The Morning Report of the Sick, NAVMED 6320/19, is used to excuse an individual from duty for a period of more than 24 hours. This report contains a list of the sick and injured, including names, diagnoses, and conditions. It is prepared by the senior medical department representative on board and is submitted to the commanding officer by 1000 daily.

When it is necessary to excuse someone from duty after the Morning Report of the Sick is submitted, add the patient's name to the Binnacle List, and submit the appropriate report to the commanding officer. If a patient is still unfit for duty when the next Morning Report of the Sick is submitted, add his name to the NAVMED 6320/19 as of the date on which his name was first entered on the Binnacle List. If a satisfactory diagnosis cannot be established, simply note "Diagnosis undetermined" and indicate the chief complaint. Report suspected cases of malingering to the commanding officer.

TRAINING LOG

All lectures and training periods that are part of the medical training program should be recorded in the Training Log and a notation made in the Medical Department Journal. The entries should include the date, location, type of training (GMT, etc.) or subject matter, and what department personnel received the training (Engineering, Deck, etc.).

IMMUNIZATION LOG

To aid you in annotating health records and filling out monthly medical reports, develop and maintain an immunizations log. As the minimum, the information should include the date; name; rank; social security number; immunization type; duty station; and, for personnel receiving PPDs, a contact phone number. There should also be space for adverse reactions.

WATER TEST LOG

The purpose of the water test log is to record the readings of daily residual chlorine or bromine levels and the weekly bacteriological examinations required on potable water aboard ship and in the field.

APPOINTMENT LOG

The purpose of the appointment log is to track medical consultations and clinical appointments that are scheduled by the Medical Department. When a patient is unable to keep an appointment, a notation indicating both the cancellation and rescheduling of the appointment should be made in the log. Multiple appointment cancellations by the same member should be brought to the attention of the member's chain of command.

DIRECTIVES ISSUANCE SYSTEM

LEARNING OBJECTIVE: *Recall the policies and procedures for maintaining directives, drafting correspondence, and filing.*

As a Hospital Corpsman in an administrative billet, you may be responsible for maintaining your command's files and the CD-ROM library of Navy directives. Refer to SECNAVINST 5215.1 for complete details of your responsibilities.

TYPES AND PURPOSES OF DIRECTIVES

A directive may be an instruction (same as a Marine Corps order), a notice (same as a Marine Corps bulletin), or a change transmittal. Directives prescribe or establish policy, organization, conduct, methods, or

procedures; require action; set forth information essential to the effective administration or operation of activities concerned; or contain authority or information that must be promulgated formally.

Instruction

An instruction is a directive containing authority or information having continuing reference value, or requiring continuing action. It remains in effect until superseded or otherwise canceled by the originator or higher authority.

Notice

A notice is a directive of a one-time or brief nature, and it always contains a self-canceling provision. A notice has the same force or effect as an instruction. Notices usually remain in effect for 6 months or less, but never for longer than a year. Any requirement for continuing action contained in a notice (such as submitting a report, using a form, or following a specified procedure) is canceled when the notice is canceled, unless the requirement is incorporated into another document (such as an instruction).

Change Transmittal

A change transmittal is used to transmit changes to manuals, publications, instructions, or, occasionally, notices. Each transmittal describes the nature of the change and gives directions for making it. Changes and corrections are made by inserting new pages, removing obsolete pages, or making pen-and-ink changes in the existing text. When a list of effective pages is included with a change, it is important to check all pages against the checklist. This procedure enables you to determine if your publication is complete and current. In the Marine Corps, comparable changes are made to orders and bulletins.

MAINTAINING DIRECTIVES

Instructions are normally placed in large three-ring binders in numerical sequence according to a standard subject identification code number (SSIC), consecutive number, and issuing authority. At some activities, directives may be maintained in a CD-ROM library. For security purposes, classified directives and documents are generally filed in separate binders and maintained in a safe. Because of their brief duration, notices ordinarily do not need to be filed in the master file (main files of instructions). If it is necessary to file them temporarily with instructions, tab the notices so that each one may be easily and promptly removed as soon as its cancellation date is reached. Copies may be filed in separate suspense binders when necessary.

Locator Sheets

When directives must be removed from the files, a locator sheet is made up and put in where the directive should be in the binder. This sheet will contain the identity of the issuing authority, the directive's standard subject identification code number, subject title, date removed, and both the location of the directive and the name of the person who has custody of it.

Making Changes

Follow the instructions enclosed in change transmittals to enter changes to directives. Proper notations, such as "CH-1," are entered in the upper right margin of the first page of each directive changed to indicate changes received and incorporated. For publication-type instructions, completed changes are noted on the record of changes sheet in the front of the publication.

List of Effective Instructions

Each year, BUMED conducts a review of all current instructions, then compiles and distributes a consolidated list of effective internal and external instructions via the internet.

CORRESPONDENCE

In addition to maintaining directives and logs and submitting reports, the Hospital Corpsman working in an administrative billet must be able to draft and type correspondence correctly and neatly and be able to file correspondence so that it may be retrieved quickly and efficiently.

Navy official correspondence is usually prepared in the standard naval letter format, referred to as the **standard naval letter**. The standard naval letter is also used when corresponding with certain agencies of the United States Government. Some civilian firms that deal extensively with the Navy also prepare correspondence using the standard naval letter. Instructions for typing standard naval letters are very precise and must be followed to the last detail. All the information to properly prepare naval correspondence

can be found in the current version of the *Department of the Navy Correspondence Manual*, SECNAVINST 5216.5. You should consult this manual when you prepare correspondence. You may use approved computer programs for preparing correspondence.

File Number

The size and complexity of the Navy demands a standard method for filing paperwork. This standardization frees personnel from learning new filing systems when moving from one activity to another. The **SSIC system** of coding correspondence through use of a four- or five-digit number representing its subject matter provides an efficient, consistent method of filing and retrieving documents. SSICs are found in *Department of the Navy Standard Subject Identification Codes,* SECNAVINST 5210.11. They serve as file numbers for and are required on all Navy and Marine Corps letters, messages, directives, forms, and reports. SSICs will be discussed in more detail in the upcoming section on filing.

Originator's Code

An originator's code, formed according to local instructions and serving as a basic identification symbol, appears on all outgoing correspondence. It is usually the office symbol of the drafter, but it may be the hull number of the drafter's ship. For example: **LHA l8-80.** This is office/department 80 of ship LHA-18.

Serial Number

Classified correspondence must contain a serial number. Whether unclassified correspondence is also serialized depends on local policy. A command that produces little correspondence probably does not need to serialize. An activity that uses serial numbers starts a new sequence at the beginning of each calendar year and assigns the numbers consecutively. The serial number, when used, is combined with the originator's code. The following format is used: **Ser LHAl8-80/0726**. This represents the 726th piece of correspondence produced by office/department 80 of ship LHA-18 during the current calendar year.

There is no punctuation following the serial number and no space before or after the slash. For classified correspondence, the classification letter precedes the serial number (**C** for Confidential, **S** for Secret, **T** for Top Secret). For example: **Ser LHAl8-80/C16**. This is the sixteenth piece of confidential correspondence originating from office/department 80 of LHA-18 since the beginning of the current calendar year.

ELECTRONIC MAIL

Electronic mail (e-mail) lets individuals and activities exchange information by computer. You could use it for informal communications in place of telephone calls or to transmit formal correspondence within DoD.

FACSIMILE TRANSMISSION SERVICE

Facsimile machines (fax) provide a rapid and reliable alternative to the mail service for transmission of documents. Use of fax machines and other electronic media is discussed in the *Navy Correspondence Manual*.

MESSAGES

A message is a written thought or idea, expressed as briefly and precisely as possible, and prepared for transmission by the most suitable means of telecommunication. Details on format, headings, precedence, and addressal of naval messages are contained in the current version of the *Naval Telecommunications Procedures Manual,* NTP 3.

FILING

In the previous section of this chapter, we said that each piece of correspondence requires a file number, derived from the *Department of the Navy Standard Subject Identification Codes,* SECNAVINST 5210.11, and referred to as the **SSIC**. The extent of your knowledge of this standardization system of subject identification will determine the efficiency with which you will be able to retrieve a piece of correspondence from your files.

Numerical Subjects Grouping

SSICs are broken down into 13 major groups:

1000 series—Military Personnel

2000 series—Telecommunications

3000 series—Operations and Readiness

4000 series—Logistics

5000 series—General Administration and Management

6000 series—Medicine and Dentistry

7000 series—Financial Management

8000 series—Ordnance Material

9000 series—Ships Design and Material

10000 series—General Material

11000 series—Facilities and Activities Ashore

12000 series—Civilian Personnel

13000 series—Aeronautical and Astronautical Material

These major groups are subdivided into primary, secondary, and, at times, tertiary (third-level) subdivisions. Primary subjects are designated by the last three digits of the code number, secondary subjects by the last two digits, and tertiary subjects by the last digit. For example: **6224**

6000 Medicine and Dentistry

6200 Preventive Medicine

6220 Communicable Diseases

6224 Tuberculosis

6100 Physical Fitness

6600 Dentistry

Detailed subdivisions can be found in SECNAVINST 5210.11.

Classifying

Classifying, as it is used here, is the process of determining the correct subject group or name-title codes under which correspondence should be filed and any subordinate subjects that should be cross-referenced. Classifying is the most important filing operation because it determines where correspondence is to be filed.

The proper way to subject-classify a document so that it can be readily identified and found when needed is to read it carefully, analyze it, and then select the SSIC that most closely corresponds to the subject.

Cross-Reference Filing

File most official correspondence, reports, or other material under only one standard subject identification code. There are times when more than one code will apply to the contents of the correspondence. In these cases, a system of cross-referencing is desirable to permit you to locate the correspondence quickly. To cross-reference, use a Cross-Reference Sheet, DD Form 334 (filling in the required information about the correspondence), or make a copy of the correspondence and place it in the appropriate cross-referenced file. Instances where you need to use a Cross-Reference Sheet are when

- a document has more than one subject;
- the subject may be interpreted in such a way that it lends itself to filing under more than one specific subject group;
- two or more subject identification codes pertain to the names, places, or items appearing in the document;
- enclosures are separated from the basic correspondence; or
- oversize material is filed in an area that is separate from the file for which intended.

Official Method of Filing

Loose filing of correspondence in standard file folders is the official method because it saves time and material. A label containing identifying data for each folders contents is generally placed on the tab of the folder. Five-drawer, steel, non-insulated, letter-size cabinets are standard equipment in the Navy for filing correspondence and documents. Material that cannot be folded neatly in the intended file should be filed in a suitable cabinet. Note the location of this material on the basic document of a cross-reference sheet. Files containing classified documents or Privacy Act data are to be properly secured in accordance with the current version of OPNAVINST 5510.1. Use of computers to maintain files is also a quick method for retrieval. However, paper and/or backup disk copies of the computer files must also be available.

Terminating Files

General correspondence, as well as most other files, are terminated at the end of each **calendar** year, and new files are begun. Budget and accounting records are also terminated annually, but at the end of each **fiscal** year (30 September). Maintain terminated files in the office for 1 year before they are retired to a storage area where they are maintained until they are eligible for destruction or transfer to a Federal Records Center. The current version of the *Disposal of Navy and Marine Corps Records Manual,* SECNAVINST

5212.5, contains detailed information about terminating files.

DISPOSITION OF RECORDS

The Department of the Navy is producing records with increasing speed and ease. Actions and decisions, both important and unimportant, are being documented at every level of command. Informational papers are being more widely distributed. The records disposal program is designed to identify records for permanent retention or temporary retention and later destruction. One of the goals of the program is to dispose each year of a volume of records at least equal to the volume of records created during that year.

Decisions to save or not save must not be avoided by saving all your files. No matter how firmly you believe that disposing of a file today will mean that someone will need it tomorrow, a decision must be made. If you are in doubt about disposal of certain records, avoid taking it upon yourself either to retain or dispose of them; consult with your superiors to decide what course of action to take. The current version of the *Disposal of Navy and Marine Corps Records Manual,* SECNAVINST 5212.5, discusses the retention period of official files and explains whether they should be destroyed or forwarded to a Federal Records Center for further retention.

ELECTRONIC RECORDS

An electronic record is any information that is recorded in a digital form that only a computer can process. In practice, there is no difference between managing electronic and paper records. The *Navy Correspondence Manual* is an excellent guide to use for handling electronic records.

TICKLER FILES

As we discussed earlier in this chapter, the Medical Department is required to submit a number of reports. These required reports are listed in OPNAVNOTE 5214 (which is published annually) and in NAVMED P-117, chapter 23. To ensure that these reports are submitted in a timely manner, a system has been developed to readily identify what report is due and when it is due. This system is known as the **tickler** system. The manner in which a tickler file is made up may vary with each command. Use a computer to save time since there are many approved programs available to create tickler files. Or, you may use 5" x 8" cards with separators marked with the month (i.e., January through December), with the tickler card filed in the month in which the report is due. The tickler file may also be used as a reminder of action required on incoming correspondence, or interim reports on a project with a future completion date. Aboard ship, the tickler file is also required for personnel requiring immunizations, physical examinations, or program evaluation. To ensure that departments submit all reports when due, it is advisable to have a tickler system alerting them in sufficient time before the actual due date. This may be accomplished as follows:

- Put out a monthly listing of reports due.
- Provide each department with a copy of the appropriate tickler card.

To be effective, the tickler file requires daily attention and updating.

MEDICAL DEPARTMENT SUPPORT TO THE FLEET MARINE FORCE (FMF) AND FLEET HOSPITALS

LEARNING OBJECTIVE: *Recognize the medical organization of the Fleet Marine Force and Fleet hospitals.*

To understand the complexity of medical support to FMF and Fleet hospitals, you must first be familiar with its overall organization. We will first discuss the FMF. Medical and dental personnel are not members of the U.S. Marine Corps. They are detailed from the Navy and assigned to the FMF, which is a balanced force of combined air and ground troops trained, organized, and equipped primarily for offensive deployment. The FMF consists of a headquarters, force troops, a force service support group (FSSG), one or more Marine divisions, brigades, and aircraft wings. Each of these units is assigned a specific number of medical support personnel, providing an interrelated network of medical support.

FMF MEDICAL SUPPORT

In general, Medical Department personnel serving with FMF may be divided into two groups:

- Combat personnel, who provide medical and initial first aid to prepare the casualty for further evacuation, and

- Support personnel, who provide surgical and medical aid to those who need early definitive care and cannot be further evacuated.

Medical personnel are an integral part of the combat unit to which they are assigned; they train with their units and live with and accompany them at all times.

All of the units comprising an FMF have Medical Department personnel organic to them. However, the majority of medical support comes from the medical battalion of Force Service Support Group (FSSG). The FSSG is a composite grouping of functional units. These functional units provide combat service support beyond the organic capability of all elements of FMF.

The medical battalion provides combat medical support required for independently deployed battalion landing teams, regimental landing teams, Marine expeditionary units, or Marine expeditionary brigades. The primary mission of the medical battalion is to provide

- casualty collection,
- emergency treatment,
- temporary hospitalization,
- specialized surgery, and
- evacuation.

In addition, medical battalions must plan, supervise, and coordinate timely preventive measures for controlling disease.

The basic organization of a typical medical battalion is shown in figure 14-1. A further breakdown of the organization can be found in chapter 3 of the *Marine Corps Warfighting Publication (MCWP) 4-11.1*.

FMF DENTAL SUPPORT

The mission of FMF dental units is to furnish dental services to a Marine Expeditionary Force. By attaching dental sections and detachments of the task force, battalion personnel maintain dental readiness during exercises, deployments, operations other than war, and combat operations.

In an emergency environment, the dental battalions primary mission is to provide dental health maintenance, with a focus on emergency care. Personnel from these detachments may also provide postoperative, ward, central sterilization, and supply room support, and other medical support as determined to be appropriate by the medical battalion and surgical company commanders.

FLEET HOSPITALS

Initially conceived and developed as facilities to provide medical support during intense combat operations, fleet hospitals are also used in lengthy low-intensity scenarios. Fleet hospitals are transportable, medically and surgically intensive (capable of performing advanced medical and surgical procedures), and deployable in a variety of operational scenarios. Available in sizes ranging from 100 to 500 beds, these health-care assets can be used by a variety of field commanders. Fleet hospitals are designed to be used in long-term operations (60+ days) involving a

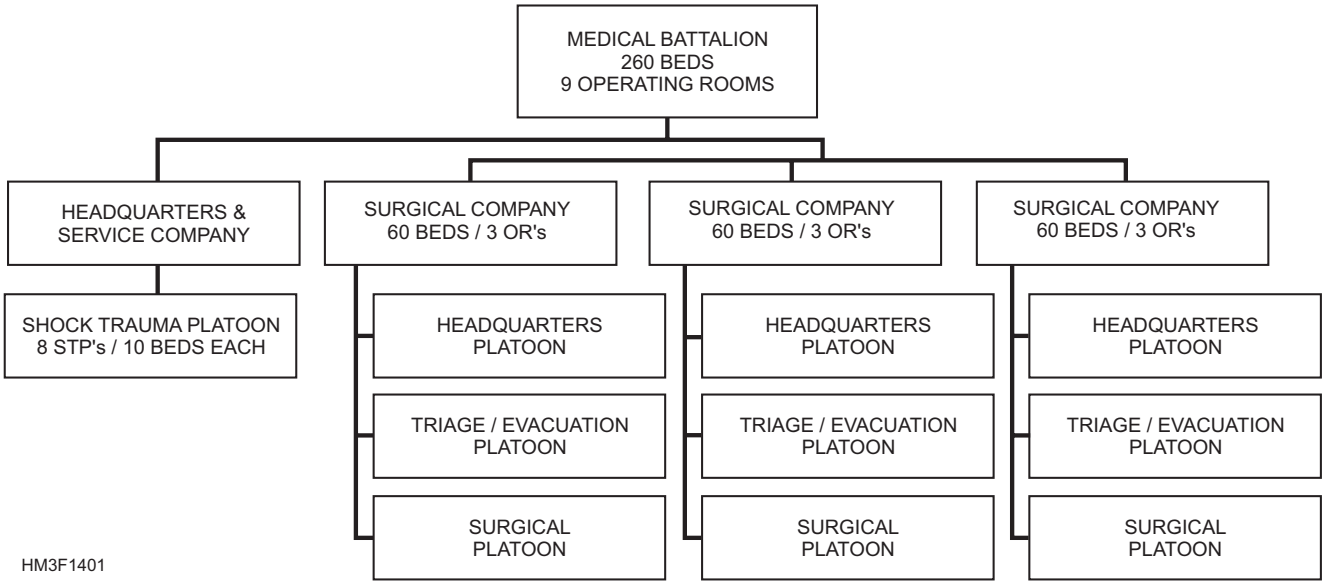


Figure 14-1.—Organization of a medical battalion.

sizable number of ground forces. Moderately sophisticated care is provided, along with resuscitative medical and surgical care, and selected specialty care. Fleet hospitals are substantially self-supporting and relocatable; however, relocatability varies with the hospital size.

Mission

A fleet hospital's mission depends on its type and the operation in which it will be used. The type is determined by bed size and echelon of care. Fleet hospitals are designed and staffed to provide Echelon III or Echelon IV levels of patient care.

Designation

Fleet hospitals designated as active duty facilities will be manned by active duty personnel, with a command staff assigned from one particular naval hospital using the Medical Augmentation Program (MAP). Naval Reserve fleet hospitals will be staffed by preassigned Naval Reserve personnel. After activation, fleet hospitals are deployed to an operational theater where command and control pass to an operational commander.

Organization

The internal organization of the fleet hospital is similar to a shore-based MTF. It consists of the command staff (commanding officer, executive officer, command master chief, and special assistants) and five directorates (nursing service, medical services, surgical service, ancillary service, and administrative service).

Security and Safety

A deployed fleet hospital must have a security plan that addresses security precautions, threat response, and disaster recovery. The security program covers physical, informational, and classified material aspects normally included in the area of operation (AO) security plan. Physical security for fleet hospitals is both internal and external.

Fleet hospitals will follow the same OPNAV safety program as other operational units. Hospital commanders establish a safety program and an internal organization to address safety issues and appoint a safety officer.

Logistics

Logistics for a fleet hospital include medical supplies, equipment, and services. Logistical requirements can range from acquiring raw material to delivering medical supplies to a field hospital, or returning medical equipment to a theater after a patient evacuation. Tasks of fleet hospital logistics include contracting, host-nation support, equipment management, facilities management, transportation, graves registration, and postal service. All of the fleet hospital supply department operations are conducted in accordance with NAVSUP P-485.

Personnel

Staffing for active duty fleet hospitals comes from several CONUS MTFs, while designated reserve units staff a particular reserve fleet hospital. Each fleet hospital has its own **active manning document** (AMD). Personnel are normally issued TAD orders for less than 180 days. If the operation exceeds 179 days, PCS orders may be issued. Replacements are handled the same way as in any fixed MTF.

Training

BUMED is responsible for monitoring the training of all authorized personnel assigned to fleet hospital mobilization billets. COMNAVSURFRESFOR is responsible for overseeing the training of Naval Reserve personnel assigned to staff Naval Reserve fleet hospitals.

COMMAND MEDICAL READINESS PLAN

LEARNING OBJECTIVE: *Recall the policies and procedures for the drafting of a command medical readiness plan, and recall mobile medical personnel augmentation procedures.*

As you advance in the Hospital Corps, you may be involved in assisting in the development of a command readiness plan. This is the process by which wartime medical requirements are filled by active duty and reserve personnel to bring units to their full or partial wartime allowance.

MEDICAL AUGMENTATION PROGRAM (MAP)

The Medical Augmentation Program is a computer-supported program that provides medical personnel to the operating forces during situations requiring medical personnel augmentation (additional personnel). Inherent in this system is the ability to monitor wartime manning readiness and determine the impact of future personnel requirements. The program also allows for the planning of training for Medical Department personnel. Other aspects that must be considered are the establishment of training requirements, the development of a readiness reporting system, and the phased deployment of personnel.

Augmentation Sources

Through MAP, the requirements of the operational commanders are combined with the active duty resources of the augmentation source commands. The commands that are to be supported by MAP are functional units, typically manned only at a minimum level during peacetime and requiring manpower augmentation in order to fulfill their missions during contingency situations. Current manpower authorization levels are not a factor in defining unit augmentation requirements. The augmentation sourcing units are CONUS-based medical and dental treatment facilities. These medical and dental facilities provide and train the augmentees. The sourcing units' assets are matched with the augmentation requirements.

Program Scope

The scope of the MAP is based on a worst-case scenario involving total augmentation to meet the early support requirements of the operational forces. This means bringing all operational units to their full allowances. Limited augmentation scenarios are also within the scope of this program. Double tasking is not permitted under the MAP. The MMART system is a subset of the MAP and should not be viewed as a separate entity. The MMART surgical/surgical support teams are incorporated into the system as the core of an LHA/LPH/LHD augment. Individuals may have both MMART and LHA/LPH/LHD mission assignments, but these are identical, not dual tasks. Specific unit platforms and training requirements are discussed in detail in the current version of *Medical Augmentation Program (MAP)*, BUMEDINST 6440.5.

MOBILE MEDICAL AUGMENTATION READINESS TEAM (MMART)

The MMART system is a peacetime subset of the MAP. The mission of an MMART is to serve as a force of trained Medical Department personnel capable of rapidly augmenting operational forces for limited, short-term military operations, disaster relief missions, fleet and FMF exercises, and scheduled deployments. During contingencies requiring medical augmentation, the MMART surgical and surgical support teams become the integral augment core for LHA/LPH/LHDs. Other MMART teams dissolve into other augment units.

The MMART is a composite of separate teams manned by medical and dental specialists. The nucleus of the MMART is the surgical team. When combined, a number of distinct specialty teams comprise a single MMART. A full composite MMART consists of one of each of the following component specialty teams:

- Surgical team
- Surgical support team
- Head and neck trauma team
- Neurosurgical team
- Nursing team
- Medical regulating team
- Special psychiatric rapid intervention team (SPRINT)
- Blood bank team
- Preventive medicine team
- Disaster relief/evacuation team

An MMART may be deployed as a full composite team. However, in most situations, an individual specialty team or a combination of specialty teams is all that is required. The personnel and material organization of the MMART may be modified at BUMED direction to meet the specific operation or disaster mission. MMARTs are generally deployed as intact units to an operational commander. These teams may be augmented or reduced as necessary, but they are deployed to a single unit. The exception to this situation is in medical regulating teams, which are fragmented to various ships to set up a medical regulating communications network. For further information about MMART, see the current version of *Mobile Medical Augmentation Readiness Team (MMART) Manual*, BUMEDINST 6440.6.

JOINT MEDICAL OPERATIONAL PLAN

LEARNING OBJECTIVE: *Identify the steps in the development of a joint medical operational plan.*

As a Hospital Corpsman you should be able to assist in the development of a joint medical operational plan. This is a plan that outlines the use of medical assets in support of tactical operations. The tactical mission of the combat forces is the basis for all medical planning. Medical preparation and planning must be initiated early and must be specifically designed to support the tactical operation.

MEDICAL ESTIMATE

A medical estimate is an estimate of personnel and material needed to supply medical services in support of military operations. The steps that are taken in preparing the medical estimate include consideration of the command mission, consideration of the factors affecting the health services (workload, supplies, etc.), and evaluation of proposed courses of action (i.e., listing comparative advantages and disadvantages of each).

Medical Intelligence

The staff surgeon and dental surgeon must be thoroughly informed of all military operations before a proper medical estimate can be made. Some of the items that should be considered are enemy capabilities, friendly capabilities, and environment (terrain, climate, etc.). This information, taken together, becomes **medical intelligence**.

Patient Estimate

Based on the medical intelligence, a preliminary patient estimate can be made of the probable number of patients, types of patients, patient distribution, and the areas of greatest patient density. From these preliminary patient estimates, a calculation is made of the number and types of medical units and the amount and kinds of medical material which will be required. Similar estimates, based on the anticipated health situation, will be required for preventive medicine units.

Evaluation of Course of Action

The staff surgeon must determine the various courses of action that are available and the probable effect of each enemy capability on the success of each course of action, and weigh the advantages and disadvantages of each course of action. The staff surgeon will then decide which course of action promises to be the most successful in accomplishing the mission. A recommendation will be made to the commander for medical requirements, along with where, when, and how medical units should be employed.

PLANNING FACTORS

Basic planning for medical support in joint operations involves four major considerations:

- Plans pertaining exclusively to each medical service
- Plans of each medical service that require coordination with the other elements of the same armed service
- Plans involving joint action among the services
- Plans involving coordination with allied forces

Admission Rates

One of the prerequisites for sound medical planning is an accurate estimate of patients, calculated by applying admission rates to personnel strengths. Admission rates are numerical expressions of the relative frequency with which patients are admitted to hospitals from a specified population over a designated period of time. The particular admission rates used in medical planning represent average rates derived from similar experiences in similar military operations. The three primary categories of patients used in calculating admission rates in an area of military operation are wounded (battle) patients, nonbattle injury patients, and patients who are ill.

Evacuation

Patient evacuation policy is established by the Secretary of Defense, with the advice of the Joint Chiefs of Staff and the recommendation of the theater commander. The policy states, in number of days, the maximum period of noneffectiveness (i.e., hospitalization) that patients may be held within the command for treatment. Any patient who is not expected to return to duty within the number of days expressed in the theater evacuation policy is

evacuated. Evacuation plans are greatly influenced by the amount and type of transportation available to medical service.

SUMMARY

In this chapter we discussed medical reports, logs, and records commonly used by the Navy Medical Department. We also covered maintenance and disposal of instructions and notices, preparation of correspondence, and filing procedures. Additionally, the chapter covered the Fleet Marine Force, development of a command medical readiness plan (to include the Mobile Medical Augmentation Readiness Team (MMART) and unit augmentation), and development of a joint medical operational plan.

CHAPTER 15

HEALTHCARE ADMINISTRATION

In the Medical Department, proper records administration is very important. We are charged with administering not only routine personnel records, but also clinical records that may affect the rights and benefits of patients and their dependents years beyond retirement or discharge.

As a Hospital Corpsman, you could be assigned to or responsible for the administrative affairs concerning inpatients or outpatients. This chapter will provide information on the function of healthcare programs you may be involved with or responsible for. We will also discuss the legal implications in medical care, including the various aspects of consent, incident reports, and release or nonrelease of medical information under the Privacy and/or Freedom of Information Acts. Further, guidance concerning your relationship and interaction with law enforcement personnel and the legal community will also be outlined.

PATIENT ELIGIBILITY FOR HOSPITALIZATION AND NONFEDERAL CARE

LEARNING OBJECTIVE: *Recognize the policies and procedures for DEERS, CHAMPUS, and TRICARE.*

The fact that a person seeking treatment is or was connected with the federal government does not automatically entitle him to treatment at a naval medical treatment facility. A number of factors determine eligibility for certain types of medical attention and the source and amount of remuneration for that treatment. The following section deals with eligibility verification by presentation of a valid ID card and utilization of the Defense Enrollment Eligibility System (DEERS). Further guidance can be obtained by familiarizing yourself with the following sources:

- NAVMEDCOMINST 6320.3, *Medical and Dental Care for Eligible Persons at Navy Medical Department Facilities*
- NAVMEDCOMINST 6320.18, *Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) Regulation*
- NAVMED P-5020, *Resources Management Handbook*

DEFENSE ENROLLMENT ELIGIBILITY REPORTING SYSTEM (DEERS)

The Defense Enrollment Eligibility Reporting System (DEERS) was developed to improve distribution and control of military healthcare services. Additionally, DEERS was implemented to assist in the projection and allocation of costs for healthcare programs and to minimize fraudulent healthcare claims. Navy medicine's eligibility for care instruction, NAVMEDCOMINST 6320.3, provides guidance as to who and under what circumstances members can receive medical and dental care at Navy Medical Department facilities; the extent and conditions under which such care may be provided; and the collection process to pay for that care.

Enrollment for all seven uniformed services (i.e., Army, Air Force, Marine Corps, Navy, Coast Guard, Public Health Service, and National Oceanic and Atmospheric Administration) is accomplished through completion and submission of an ***Application for Uniformed Services Identification and Privilege Card*, DD 1172,** for a member's dependent. When a new ID card is obtained for the dependent, the member's DEERS data is updated online. If problems exist within a patient's database, active duty personnel and their dependents must be referred to the sponsor's personnel office. Refer all other beneficiaries (e.g., retired personnel and their dependents) to the nearest personnel office.

Direct Care System Procedures

In addition to providing authorization to standard medical care through inclusion in its membership database, DEERS now includes a dental policy based upon beneficiary information (versus the previous policy based on sponsor information). This change in policy occurred in part because of the increased accuracy of the database as well as the percentage of personnel enrolled.

Although DEERS and the ID card system are related, there are instances when the beneficiary is in possession of a valid ID card and the DEERS system shows the patient as ineligible or not in the database. In these instances, eligibility verification using the ID card shall not override DEERS without some other type of collateral documentation. (See sections on DEERS overrides and exceptions later in this chapter.) It must be stressed that military treatment facilities (MTFs) are to **verify** eligibility. **Establishment** of eligibility is under the cognizance of the respective service personnel offices.

Eligibility

Patients who present for non-emergency treatment without a valid ID card but who are in the DEERS database will **not** be provided medical care without first signing a statement that they are eligible and giving the reason why a valid ID card is not in their possession. If a valid ID card is not provided within 30 calendar days, the patient is referred for billing as a Civilian Humanitarian Non-indigent, in accordance with the *Resources Management Handbook*, NAVMED P-5020. Such billing may be delayed if the commanding officer of the facility is convinced proof is delayed for reasons beyond the control of the patient or sponsor. In all cases where a patient presents without an ID card and does not appear in the DEERS database, **non-emergency** care will be denied.

REASONS FOR INELIGIBILITY.—When a DEERS check is performed and the patient is found ineligible for any of the following reasons, routine non-emergency healthcare will be denied (except as noted later in this section).

- Sponsor not enrolled in DEERS
- Dependent not enrolled in DEERS
- Ineligible due to passed terminal (end) eligibility date
- Sponsor has separated from active duty
- Spouse is divorced from sponsor and is not entitled to benefits as a former spouse
- Dependent child is married

UNDER NO CIRCUMSTANCES WILL THE CLERK PERFORMING THE ELIGIBILITY CHECK DENY THE REQUESTED CARE. Only command-designated supervisory personnel can perform this function.

DEERS ELIGIBILITY OVERRIDES.—The nine "DEERS eligibility overrides" are listed below. Unless otherwise stated, all overrides must be supported by a valid ID card.

1. **DD 1172**—The patient presents an original or copy of the DD 1172 used for DEERS enrollment. There are specific items required for verification, and current service directives must be checked.
2. **All Other Dependents Recently Becoming Eligible for Benefits**—Patients who become eligible for benefits in the previous 120 days may be treated upon presentation of a valid ID card. For children under 10 years of age, a valid ID card of a parent or guardian is acceptable. Upon application for care beyond 120 days, follow the procedure in item 1, above.
3. **New Identification Card**—Patients presenting with a new valid ID card, issued within the previous 120 days, will not be denied care.
4. **Ineligible Due to ID Card Expiration**—When the database shows a patient as ineligible because of ID card expiration, care may be rendered as long as the patient has a new ID card issued within the previous 120 days. After 120 days, follow the procedure in item 1, above.
5. **Sponsors Entering Active Duty Status for a Period of Greater than 30 Days**—A copy of orders ordering a reservist or guardsman to an active duty period of greater than 30 days may be accepted for the first 120 days of the active duty period. After that, follow the procedure in step 1.
6. **Newborns**—Newborns will not be denied care for a period of 1 year following birth. The patient's birth certificate suffices when presented with a parent's valid ID card.
7. **Emergency Care**—This is a medical decision and shall be determined by criteria established within the command.
8. **Sponsor's Duty Station is Outside the 50 United States or has an APO/FPO Address**—Dependents whose sponsors are assigned outside the 50 United States or to a duty station with an APO/FPO address will not be denied care as long as the sponsor is enrolled and eligible in DEERS.
9. **Survivors**—When an eligibility check indicates that a deceased sponsor is not enrolled

in DEERS or the survivor is listed as the sponsor, the survivor will be treated on the first visit and referred to the appropriate personnel office for correction of the DEERS database. For second and subsequent visits, the survivor will be required to follow the procedure in item 1, above.

DEERS ELIGIBILITY EXCEPTIONS.—The following beneficiaries are categorized as "DEERS Eligibility Exceptions." Although authorized care, they may not be authorized to be enrolled in the DEERS system. These beneficiaries will **NOT** be denied care based upon a DEERS check.

- **Secretary of the Navy Designees**—Secretary of the Navy Designees will be treated as indicated on their letter of designation.
- **Foreign Military Personnel**—These personnel and their dependents, assigned through Personnel Exchange Programs or other means, are or may be eligible. Eligible members may also include

  —North Atlantic Treaty Organization (NATO) military personnel and their dependents stationed in or passing through the United States;

  —crew and passengers of visiting military aircraft; and

  —crews of ships of NATO nations that come into port.

Other foreign military personnel may be eligible through Public Law or DoD agreements. As such, they will be treated in accordance with current service directives.

Patients in other organizations, such as Red Cross workers, Secret Service agents, Federal Aviation Administration personnel, and some non-retiree veterans, to name a few, are also in this category. Ensure current eligibility requirements are met for these personnel prior to treatment.

TRICARE

TRICARE is an enhancement of the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). TRICARE is a medical benefits program established to enhance management of care services in military medical treatment facilities and to cost-share charges for medically necessary civilian services and supplies required in the diagnosis and treatment of illness or injury. TRICARE is also utilized if the required services are not available from the direct care system of the Department of Defense treatment facilities or designated MTFs.

Information pertaining to eligibility, extent of care, providers, cost, and claims is contained in the booklet *Sailing with TRICARE, for Sailors and Their Families*. A copy of this publication, along with the *TRICARE Provider Directory* and other helpful TRICARE information is available at your local TRICARE Service Center. A wealth of guidance is also available via the DoD TRICARE homepage, http://www.tricare.osd.mil.

NAVY MEDICINE'S QUALITY ASSURANCE PROGRAM

LEARNING OBJECTIVE: *Recall the philosophy of Navy medicine's Quality Assurance Program.*

The Quality Assurance Program is used to evaluate the degree of excellence of the results of delivered care and to make improvements so that care in the future will result in a higher degree of quality. Quality assurance activities reflect what patients and providers expect of each other. In past years, various means of reviewing and evaluating patient care have been introduced. In 1979, the JCAH Board of Commissioners imposed the requirement for hospitals to coordinate quality assurance activities and to use an ongoing monitoring system to review and evaluate the quality and need for care. This approach is effective in identifying important patient-related problems and is applicable in every healthcare delivery situation. Many of the principles, standards, and organizational requirements of JCAH have been adopted and are contained in OPNAV 6320.7, *Health Care Quality Insurance Policies for Operating Forces*. BUMEDINST 6010.13, *Quality Assurance Program*, lists the required elements for process improvement (quality assurance) programs of naval hospitals, medical clinics, and dental clinics.

PATIENT RELATIONS AND COMMAND PATIENT CONTACT PROGRAMS

LEARNING OBJECTIVE: *Recall the philosophy of the Patient Relations Program and the Command Patient Contact Program.*

Navy healthcare professionals have long understood the need for good communication and rapport between the patient and the medical department staff. The atmosphere in which patient care is given has a tremendous effect on the patient's perception of the quality of care. The quality of medical care rendered to Navy beneficiaries is superb; however, too frequently the medical care is perceived by the patient to be substandard because personnel in patient contact points are not adequately trained in interpersonal relations. Good patient rapport is an essential element of health care delivery. Many complaints voiced by patients would not occur if personnel manning critical patient contact points presented a courteous, positive, and knowledgeable attitude that reflected a genuine concern for the patient.

To this end, the Patient Relations Program was implemented through BUMEDINST 6300.10, *Health Care Relations Program*. The Patient Relations Program's primary goal is to provide assistance by intervention in and resolution of a patient's complaints or problems. The Patient Contact Program, a subset of the Patient Relations Program, ensures an effective means of resolving such issues before the patient departs the facility. As an adjunct to this goal, both programs strive to enhance the channels of communication between the hospital and the patient population, as well as among the hospital staff.

FAMILY ADVOCACY PROGRAM

LEARNING OBJECTIVE: *Recognize policies and procedures pertaining to the Family Advocacy Program.*

The purpose of the Family Advocacy Program is to identify, treat, and monitor Navy personnel engaging in spouse or child abuse/neglect (whether physical or psychological) and sexual abuse. The program, a responsibility of the Navy Military Personnel Command, is guided by SECNAVINST 1752.3 and, further, by BUMEDINST 6320.70. In each geographical location, a Family Advocacy Representative (FAR), usually a staff member of the Naval Hospital, manages the program. A basewide committee, composed of medical, line, chaplain, and Family Service Center personnel, reviews abuse cases and determines whether each case is established, suspected, or unfounded. Established cases are reported at the central registry at the Bureau of Medicine and Surgery, where service statistics are compiled and the future assignment of established abusers is monitored and controlled.

DRUG AND ALCOHOL ABUSE PREVENTION AND CONTROL PROGRAM

LEARNING OBJECTIVE: *Recognize policies and procedures pertaining to the Drug and Alcohol Abuse Prevention and Control Program .*

The Navy has established a "zero tolerance" standard for drug usage. Although prevention and punishment are still major components of the zero tolerance policy, the major emphasis has shifted to education and training. Routine after-care treatment of addiction is rarely offered to individuals found abusing drugs, and the most likely outcome of drug abuse is appropriate disciplinary action and separation from the service. Levels of alcohol-abuse treatment range from shipboard education programs to inpatient admission. Post-treatment consists of monitoring and support groups, both of which are crucial aspects of the 1-year after-care rehabilitation program.

All individuals with substance abuse problems—whether alcohol- or drug-related—are totally accountable for their actions and the consequences of them in accordance with the Uniform Code of Military Justice (UCMJ) and other relevant federal, state, and local laws. See OPNAVINST 5350.4, *Drug and Alcohol Abuse Prevention and Control*, and SECNAVINST 5300.28, *Military Substance Abuse Prevention and Control*, for additional information and guidance.

Drug and alcohol abuse is costly in terms of lost work hours and unnecessary administrative and judicial processing and is a critical drawdown on morale and esprit de corps. It undermines the very fiber of professional readiness, safety, discipline, judgment, and loyalty. It is not only the abuser who is affected, but the abuser's shipmates as well. "Zero tolerance" recognizes that drug and alcohol abuse is incompatible with the maintenance of high standards of performance, military discipline, and readiness, and is destructive of Navy efforts to instill pride and professionalism in its members.

PREVENTION

Prevention programs are an important aspect of military life. **PREVENT 2000** (Personal Responsibility and Values, Education and Training) is a program designed specifically for the younger Sailor. **ADAMS** (Alcohol and Drug Abuse, Managers and Supervisors) is required for E-5 and above.

Most commands have full-time or collateral-duty **DAPA**s, Drug and Alcohol Program Advisors, who provide the direct liaison between law enforcement, medical, the Family Services Center, and the commanding officer in all matters dealing with intervention, identification, and treatment. The DAPA coordinates on-site training, facilitates Alcohol Anonymous meetings, and provides referrals for outside intervention and inpatient treatment if indicated. Personnel can be identified to the DAPA through aberrant behavioral patterns, suspicious medical findings, and by self-referral to either medical or the chaplain's office.

CONTROL

Medical personnel become professionally involved in substance abuse programs when called upon to withdraw blood or urine from an individual suspected of drug or alcohol abuse. Few areas cause as much concern and confusion to healthcare providers as the question of when those bodily fluids may be lawfully extracted.

At the outset, a few basic facts must be discussed.

1. The healthcare provider should not undertake a fluid extraction procedure when to do so is medically contraindicated.
2. Refusal to perform an extraction in the face of lawful authority could subject the healthcare provider to charges of obstruction of justice or willful disobedience of an order.
3. The healthcare provider is not an arbiter of the law. (In other words, the admissibility of evidence derived from a blood or urine sample is not a matter for Medical Department personnel to decide.)
4. Common sense and cooperation with command and law enforcement officials should be the guideposts in every instance where extraction of bodily fluids is an issue.

The following are the circumstances where withdrawal of blood or urine from active duty military members is authorized:

- **Consensual withdrawal**—If an individual expressly consents to an extraction of bodily fluids and there is a legitimate reason for the extraction, the healthcare provider may perform the procedure.
- **Valid medical purpose**—Specimens may be obtained from an individual for a valid medical examination, provided the individual has expressly or implicitly consented to the examination.
- **Competence for duty examinations**—The Competence for Duty Examination request form (NAVMED 6120/1) contains a block for the submitting authority to request laboratory analysis. See figures 15–1 and 15–2. The following procedures should be used in handling competence for duty requests.

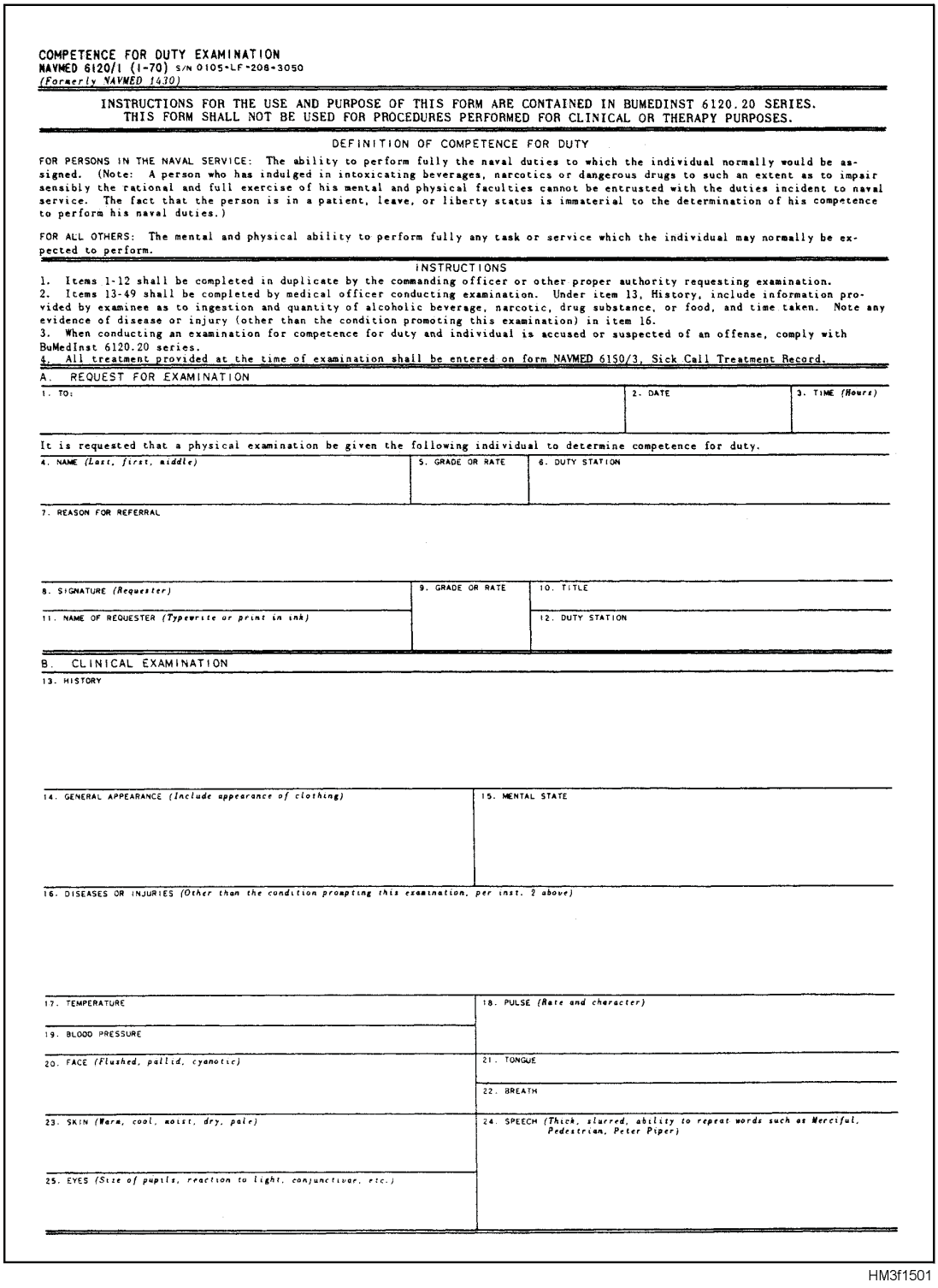
  —The command initiating the request should complete items 1 through 12 of the form. The individual submitting the request must have authority to make the request. Normally, this will be a commanding officer, executive officer, or command duty officer of the initiating command.

  —After proper initiation of the request, the medical officer or other authorized healthcare provider will complete blocks 13 through 49 on the form.

  —If the command has requested laboratory analysis, the patient should first be requested to give written consent to the procedure. If the patient will not give consent but will allow extraction, the sample should be taken. If the patient refuses consent and will physically resist extraction, the requesting command should be notified and no extraction attempted unless a search authorization is issued.

PHYSICAL READINESS PROGRAM

LEARNING OBJECTIVE: *Recognize the policies and procedures pertaining to the Physical Readiness Program.*



COMPETENCE FOR DUTY EXAMINATION
NAVMED 6120/1 (1-70) S/N 0105-LF-208-3050
(Formerly NAVMED 1430)

INSTRUCTIONS FOR THE USE AND PURPOSE OF THIS FORM ARE CONTAINED IN BUMEDINST 6120.20 SERIES.
THIS FORM SHALL NOT BE USED FOR PROCEDURES PERFORMED FOR CLINICAL OR THERAPY PURPOSES.

DEFINITION OF COMPETENCE FOR DUTY

FOR PERSONS IN THE NAVAL SERVICE: The ability to perform fully the naval duties to which the individual normally would be assigned. (Note: A person who has indulged in intoxicating beverages, narcotics or dangerous drugs to such an extent as to impair sensibly the rational and full exercise of his mental and physical faculties cannot be entrusted with the duties incident to naval service. The fact that the person is in a patient, leave, or liberty status is immaterial to the determination of his competence to perform his naval duties.)

FOR ALL OTHERS: The mental and physical ability to perform fully any task or service which the individual may normally be expected to perform.

INSTRUCTIONS

1. Items 1-12 shall be completed in duplicate by the commanding officer or other proper authority requesting examination.
2. Items 13-49 shall be completed by medical officer conducting examination. Under item 13, History, include information provided by examinee as to ingestion and quantity of alcoholic beverage, narcotic, drug substance, or food, and time taken. Note any evidence of disease or injury (other than the condition promoting this examination) in item 16.
3. When conducting an examination for competence for duty and individual is accused or suspected of an offense, comply with BuMedInst 6120.20 series.
4. All treatment provided at the time of examination shall be entered on form NAVMED 6150/3, Sick Call Treatment Record.

A. REQUEST FOR EXAMINATION

1. TO: | 2. DATE | 3. TIME *(Hours)*

It is requested that a physical examination be given the following individual to determine competence for duty.

4. NAME *(Last, first, middle)* | 5. GRADE OR RATE | 6. DUTY STATION

7. REASON FOR REFERRAL

8. SIGNATURE *(Requester)* | 9. GRADE OR RATE | 10. TITLE

11. NAME OF REQUESTER *(Typewrite or print in ink)* | 12. DUTY STATION

B. CLINICAL EXAMINATION

13. HISTORY

14. GENERAL APPEARANCE *(Include appearance of clothing)* | 15. MENTAL STATE

16. DISEASES OR INJURIES *(Other than the condition prompting this examination, per inst. 2 above)*

17. TEMPERATURE | 18. PULSE *(Rate and character)*

19. BLOOD PRESSURE

20. FACE *(Flushed, pallid, cyanotic)* | 21. TONGUE

22. BREATH

23. SKIN *(Warm, cool, moist, dry, pale)* | 24. SPEECH *(Thick, slurred, ability to repeat words such as Merciful, Pedestrian, Peter Piper)*

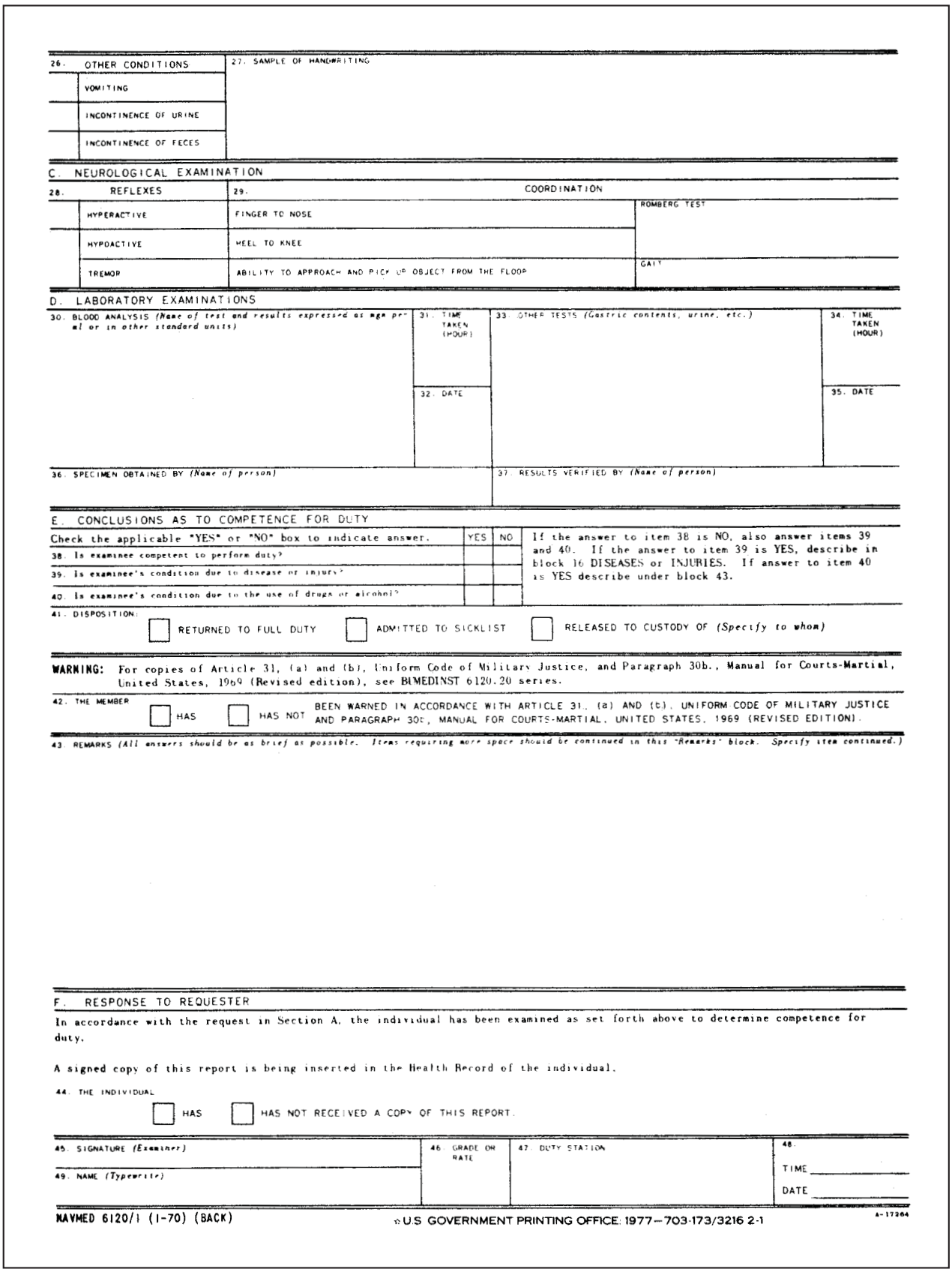
25. EYES *(Size of pupils, reaction to light, conjunctivae, etc.)*

HM3f1501

Figure 15–1.—NAVMED 6120/1, *Competence for Duty Examination request form* (front).

The policies governing this program are outlined in OPNAVINST 6110.1. Currently, physical readiness testing is required for all personnel on a semi-annual basis. Testing, education, and training advice are provided through a network of collateral duty command fitness coordinators. In addition to the requirement for program implementation by each subordinate command, Medical Department responsibilities are

- providing technical assistance to BUPERS,
- conducting lifestyle, fitness, and obesity research,



26. OTHER CONDITIONS
- VOMITING
- INCONTINENCE OF URINE
- INCONTINENCE OF FECES

27. SAMPLE OF HANDWRITING

C. NEUROLOGICAL EXAMINATION

28. REFLEXES
- HYPERACTIVE
- HYPOACTIVE
- TREMOR

29. COORDINATION
- FINGER TO NOSE
- HEEL TO KNEE
- ABILITY TO APPROACH AND PICK UP OBJECT FROM THE FLOOR
- ROMBERG TEST
- GAIT

D. LABORATORY EXAMINATIONS

30. BLOOD ANALYSIS *(Name of test and results expressed as mgm per ml or in other standard units)*

31. TIME TAKEN (HOUR)

32. DATE

33. OTHER TESTS *(Gastric contents, urine, etc.)*

34. TIME TAKEN (HOUR)

35. DATE

36. SPECIMEN OBTAINED BY *(Name of person)*

37. RESULTS VERIFIED BY *(Name of person)*

E. CONCLUSIONS AS TO COMPETENCE FOR DUTY

Check the applicable "YES" or "NO" box to indicate answer.	YES	NO
38. Is examinee competent to perform duty?		
39. Is examinee's condition due to disease or injury?		
40. Is examinee's condition due to the use of drugs or alcohol?		

If the answer to item 38 is NO, also answer items 39 and 40. If the answer to item 39 is YES, describe in block 16 DISEASES or INJURIES. If answer to item 40 is YES describe under block 43.

41. DISPOSITION:
☐ RETURNED TO FULL DUTY ☐ ADMITTED TO SICKLIST ☐ RELEASED TO CUSTODY OF *(Specify to whom)*

WARNING: For copies of Article 31, (a) and (b), Uniform Code of Military Justice, and Paragraph 30b., Manual for Courts-Martial, United States, 1969 (Revised edition), see BUMEDINST 6120.20 series.

42. THE MEMBER ☐ HAS ☐ HAS NOT BEEN WARNED IN ACCORDANCE WITH ARTICLE 31, (a) AND (b), UNIFORM CODE OF MILITARY JUSTICE AND PARAGRAPH 30c, MANUAL FOR COURTS-MARTIAL, UNITED STATES, 1969 (REVISED EDITION).

43. REMARKS *(All answers should be as brief as possible. Items requiring more space should be continued in this "Remarks" block. Specify item continued.)*

F. RESPONSE TO REQUESTER

In accordance with the request in Section A, the individual has been examined as set forth above to determine competence for duty.

A signed copy of this report is being inserted in the Health Record of the individual.

44. THE INDIVIDUAL ☐ HAS ☐ HAS NOT RECEIVED A COPY OF THIS REPORT.

45. SIGNATURE *(Examiner)*

46. GRADE OR RATE

47. DUTY STATION

48.
TIME
DATE

49. NAME *(Typewrite)*

NAVMED 6120/1 (1-70) (BACK) ☆U.S. GOVERNMENT PRINTING OFFICE: 1977—703-173/3216 2-1 A-17264

HM3f1502

Figure 15–2.—NAVMED 6120/1, *Competence for Duty Examination request form* (back).

- reviewing health status and granting waivers for those individuals unable to safely participate in physical fitness testing and training, and
- assisting in the development of exercise prescriptions.

LEGAL IMPLICATIONS IN MEDICAL CARE

LEARNING OBJECTIVE: *Recognize the policies and procedures pertaining to consent for medical treatment, incident reports, and release of medical information.*

There are few aspects of medical administration of treatment that do not have some legal implications. Every time a patient comes into contact with a facility or its staff members, either directly or indirectly, formally or informally, the potential for legal entanglement exists. Although the law has become more and more involved in the operation of hospitals, the exercise of common sense combined with a knowledge of those situations that require special care will protect the hospital and its staff from most difficulties.

This section addresses some of the situations that regularly arise and have legal consequences, including the policy and instructions that apply to those situations. Keep in mind that the law is an inexact science, subject to widely varying circumstances. The information in this chapter cannot substitute for the advice of an attorney. Hospital staff members are encouraged to consult with hospital or area Judge Advocate General (JAG) Corps officers on issues with which they are uncomfortable.

CONSENT REQUIREMENTS FOR MEDICAL TREATMENT

With limited exceptions, every person has the right not to be touched without his having first given permission. This right to be touched only when and in the manner authorized is the foundation of the requirement that consent must be obtained before medical treatment is initiated. Failure to obtain consent may result in the healthcare provider being responsible for an assault and battery upon the patient.

Informed Consent

While the term "consent" in the medical setting refers to a patient's expressed or implied agreement to submit to an examination or treatment, the doctrine of "informed consent" requires that the healthcare provider give the patient all the information necessary for a knowledgeable decision on the proposed procedure. When courts say that a patient's consent must be informed, they are saying that a patient's agreement to a medical procedure must be made with full awareness of the consequences of the agreement. If there is no such awareness, there has been no lawful consent.

The duty to inform and explain rests with the provider. **THIS RESPONSIBILITY CANNOT BE DELEGATED**.

The provider must describe the proposed procedure in lay terms so the patient understands the nature of what is proposed. The risks of the treatment must be explained. If there are any alternative medical options, they should be disclosed and discussed.

For common medical procedures that are considered simple and essentially risk free, a provider is not required to explain consequences that are generally understood to be remote. A determination of what is simple and common should be made from the perspective of appropriate medical standards. Where the harm that could result is serious or the risk or harm is high, the duty to disclose is greater.

Methods should be developed within each hospital department to acquaint patients with the benefits, risks, and alternatives to the proposed treatment. In some departments, prepared pamphlets or information sheets may be desirable. In others, oral communication may be the best method. Some states (e.g., Texas) have laws that are very specific about what is required.

Emergency Situations

Consent before treatment is not necessary when treatment appears to be immediately required to prevent deterioration or aggravation of a patient's condition, especially in life-threatening situations, and it is not possible to obtain a valid consent from the patient or a person authorized to consent for the patient. The existence and scope of the emergency should be adequately documented.

Who May Consent

The determination of who has authority to consent to medical treatment is based on an evaluation of the competency of the patient. If competent, usually the patient alone has the authority to consent. Competency refers to the ability to understand the nature and consequences of one's decisions. In the absence of contrary evidence, it may be assumed that the patient presenting for treatment is competent. If the patient is incompetent, either by reason of statutory incompetence (e.g., a minor) or by reason of a physical or mental impairment, the inquiry must turn to whoever has the legal capacity to consent on behalf of the patient. Parents and guardians will usually have the authority to consent for their minor child or children. In many states, though not all, a husband or wife may give consent for an incompetent spouse. It is the law of the state in which the hospital is located that controls the question of "substitute consent."

Forms of Consent

Consent for medical treatment should be obtained through an open discussion between the provider and patient during which the patient expressly agrees to the procedure. The consent should then be documented by having the patient sign any appropriate forms and by the provider noting any important details of the discussion in the medical record.

In certain limited circumstances, the consent of an individual to simple medical treatment may be implied from the circumstances. Implied consent arises by reasonable inference from the conduct of the patient or the individual authorized to consent for the patient. Reliance on this form of consent is strongly discouraged except in the most routine, risk-free examinations and procedures.

Witness to Consent

Any competent adult may witness the patient's consent. It is preferable that the witness be a staff member of the hospital who is not participating in the procedure. It is not advisable for a relative of the patient to act as a witness.

Duration of Consent

A consent is valid as long as there has been no material change in the circumstances between the date that consent was given and the date of the procedure. It is desirable that a new consent be obtained if there is a significant time lapse or if the patient has been discharged and readmitted due to postponement of the procedure.

INCIDENT REPORTS

When an event occurs that harms an individual, illustrates a potential for harm, or evidences serious dissatisfaction by patients, visitors, or staff, then a risk-management incident has taken place. Examples of such episodes could include the following:

- A patient's family helps him out of bed despite directions to the contrary by staff members. The patient falls and is injured.
- Excessive silver nitrate is put into the eyes of a newborn, impairing vision.
- The mother of the child complains about the care that has been given to her child and informs a staff member that she is going to talk to her lawyer about what has happened.

When a member of the staff becomes aware of an incident, he has a responsibility to make the hospital command aware of the situation. The mechanism for doing this is the **incident report** system. Incident reports are designed to promptly document all circumstances surrounding an event, to alert the commanding officer, quality assurance coordinator, and other involved administrators and clinicians of a potential liability situation, and, in a broader sense, to establish an information base on which to monitor and evaluate the number and types of incidents that take place in the facility.

Because incident reports, by their very nature, contain a great deal of information that would be of interest to persons filing claims or lawsuits against the Navy for alleged substandard medical care, and because the law recognizes the need for hospitals to have a reliable means of discovering and correcting problems, most states have enacted laws that make incident reports confidential. In other words, a person cannot obtain a copy of an incident report to help in their legal action against the hospital.

However, incident reports can lose their "protected" status if they are misused or mishandled. It is important, therefore, to treat these reports like other confidential documents. You must strictly limit the number of copies made and the distribution of the reports. Do not include the report in the patient's treatment record. The report should be limited to the facts and must not contain conclusions. Finally, the

report should be addressed and forwarded **directly** to the quality assurance coordinator of the hospital.

Further guidance concerning the Risk Management Program, the program that governs incident reports, can be found in BUMEDINST 6010.21.

RELEASE OF MEDICAL INFORMATION

Two federal statutes, the **Privacy Act** and the **Freedom of Information Act** (FOIA) combine to establish the criteria for collecting, maintaining, and releasing medical treatment records.

Freedom of Information Act

The Freedom of Information Act governs the disclosure of documents compiled and maintained by government agencies. A written request for Department of the Navy records that explicitly or implicitly refers to FOIA must be responded to in accordance with the provisions of the Act. The Department of the Navy will make available to any person all documents, not otherwise exempt, provided the requester reasonably describes the records sought and promises to pay for reasonable search and photocopy costs. Each naval activity is responsible for developing procedures for ensuring the prompt handling, retrieval, and review of requested records. The official having responsibility for the records has 10 working days to respond to the requester.

A naval record will be withheld only when it is exempt from disclosure under FOIA. One basis for exempting a record from disclosure applies to personnel, medical, and similar files, the release of which would constitute a clearly unwarranted invasion of personal privacy. This concern over clearly unwarranted privacy intrusion is reflected in the provisions of the Privacy Act.

Privacy Act

The public's concern over the inner workings and functioning of the government was the reason for the creation of the FOIA. However, it became obvious that a balance had to be made between the public's right to know and other significant rights and interests. One of these competing interests was the protection of an individual's personal right to privacy. In response to this need, the Privacy Act of 1974 was enacted. The stated purpose of the Privacy Act is to establish safeguards concerning the right to privacy by regulating the collection, maintenance, use, and dissemination of personal information by federal agencies.

The Privacy Act requires federal agencies to

- permit an individual to know what records pertaining to him are collected, maintained, used, or disseminated by the agency;
- permit an individual to prevent records pertaining to him and obtained by the agency for a particular purpose from being used or made available for another purpose without the individual's consent;
- permit an individual to gain access to information pertaining to him in federal agency records, have a copy made for all or any portion thereof, and correct or amend such records;
- collect, maintain, use, or disseminate any record of identifiable personal information in a manner that ensures such action is for a necessary and useful purpose, that the information is current and accurate, and that adequate safeguards are provided to prevent misuse of such information;
- permit exemptions from the requirements of the Privacy Act only in those cases where there is specific statutory authority to do so; and
- be subject to civil suits for any damages that occur as a result of willful or intentional violation of any individual's rights under the Privacy Act.

In addition, any officer or employee of an agency who willfully violates certain provisions of the Privacy Act is subject to criminal prosecution and fines.

Under the Privacy Act's provisions concerning disclosure of information, there are several circumstances under which naval treatment records and their contents can be disclosed. Included are disclosures to employees of the Department of the Navy who have a need to know the information. Also included are disclosures to a person under compelling circumstances affecting health or safety, pursuant to a court order, and to another government agency for civil or criminal law enforcement activities. Circumstances under which the release of medical information is appropriate are discussed in chapter 12, *Health Records*, and in the section of this chapter concerning law enforcement personnel.

MEDICAL CONDITIONS AND LAW ENFORCEMENT PERSONNEL

LEARNING OBJECTIVE: *Recognize the policies and procedures pertaining to prisoner patients, victims of alleged sexual assault and rape, substance abuse and control, probable-cause searches, and line-of-duty and misconduct investigations.*

Some medical conditions, by their very occurrence, will result in the involvement of law enforcement personnel. Individuals who are injured while committing a criminal offense; victims of abuse, neglect, or assault; impaired or injured as a result of drug abuse; or injured as a result of a traffic accident will often be the subject of an official investigation. Many times the investigators will want to question the patient or the healthcare providers treating the patient. Often, the medical records of the patient will be requested by the authorities. Occasionally, officials will want to take the patient into custody.

Under the Posse Comitatus Act, a federal statute enacted in 1956 (18 U.S.C. § 1385), it is unlawful for the U.S. military to be used to enforce or assist in the enforcement of federal or state civil laws. There are many exemptions to this act, but the issue for healthcare providers is settled by asking the following question: *"Is the medical procedure being done on this patient for a legitimate medical reason, or is it only being performed to assist civil law enforcement?"* Provided there is a reasonable medical justification for the procedure, the results of the procedure may be shared with civil law enforcement officials under the circumstances discussed below.

Cooperation with law enforcement officials, to the extent possible, is required. Provided there are no medical contraindications, patients who are either suspected of having committed an offense or who are presumed victims of criminal activity will be made available to speak with investigators. As discussed previously, access to medical treatment records is governed by the Privacy Act and FOIA. Generally, records of patients may be made available to U.S. Navy investigators once they have established a need to know the information. This determination will usually be made by the hospital JAG or public affairs officer. Other Department of Defense, federal, state, or local law enforcement officers may have access to treatment records if access is necessary as part of a criminal investigation and there is no unwarranted violation of the privacy rights of the individual involved. Similarly, local health and social service departments may be provided information from the record. The same guidelines that apply to access to treatment records apply to staff members' discussing with investigating officers the details of the medical treatment provided to a patient.

DELIVERY OF A PATIENT UNDER WARRANT OF ARREST

No patient may be released from treatment before it is medically reasonable to do so. Once it is determined that the individual can be released without significant risk of harm, the following guidelines regarding release to law enforcement authorities apply.

- **Nonactive Duty Patients**—When a nonactive duty patient is released from medical treatment, the facility no longer exercises any degree of control, and normal legal processes will occur. No official action by hospital personnel is required before local authorities take custody of the released patient. There may be occasions, however, when law enforcement officials should be notified of an imminent release of a patient.

- **Active Duty Patients**—The commanding officer is authorized to deliver personnel to federal law enforcement authorities who display proper credentials and represent to the command that a federal warrant for the arrest of the individual concerned has been issued. There are circumstances in which delivery may be refused; however, guidance should be sought from a judge advocate of the Navy or Marine Corps when delivery is to be denied.

Normally, it is the responsibility of the permanent command to take custody and control of an active duty member suspected of committing an offense. If the member is an unauthorized absentee and the command to which he is assigned is not in the same geographic area as the treatment facility, release of the patient should be coordinated with the nearest Transient Personnel Unit or Military Prisoner Escort Unit. Close liaison with the member's permanent command should also be established.

In cases where delivery of an active duty patient is requested by local civil authorities, and the treatment facility is located within the requesting jurisdiction or aboard a ship within the territorial waters of such jurisdiction, commanding officers are authorized to

deliver the patient when a proper warrant is presented. Whenever possible, a judge advocate of the Navy or Marine Corps should be consulted before delivery. If the treatment facility is located outside the jurisdiction requesting delivery, only a General Courts-Martial authority (as defined by the Uniform Code of Military Justice, Manual for Courts-Martial, and Navy Regulations) is authorized to arrange for delivery of such the patient. Extradition, return agreements, and other prerequisites to delivery will have to be completed.

When disciplinary proceedings involving military offenses are pending, the treatment facility should obtain legal guidance from a judge advocate before delivering a patient to federal, state, or local authorities. When the commanding officer considers that extraordinary circumstances exist which indicate that delivery should be denied, then the Judge Advocate General of the Navy must be notified of the circumstances by message or phone.

PRISONER PATIENTS

Prisoner patients fall into three categories of eligible beneficiaries:

- Enemy prisoners of war and other detained personnel
- Nonmilitary federal prisoners
- Military prisoners

Enemy Prisoners of War and Other Detained Personnel

Enemy prisoners of war and other detained personnel are entitled to all necessary medical and dental care, subject to the availability of care and facilities.

Nonmilitary Federal Prisoners

Nonmilitary federal prisoners are authorized only emergency medical care. When such care is being provided, the institution to which the prisoner is sentenced must furnish the security personnel to ensure custody of the prisoner and safety of others in the facility. Upon completion of emergency care, arrangements will be made immediately to transfer these individuals to a nonmilitary treatment facility or for return to the institution to which sentenced.

Military Prisoners

Status of Forces policy is to protect, to the maximum extent possible, the rights of U.S. personnel who may be subject to criminal trial by foreign courts and imprisonment in foreign prisons. Active duty members are generally not separated from the service until they have completed their term of imprisonment and returned to the United States. During this confinement, they will normally remain healthcare beneficiaries.

Military prisoners (those sentenced under the Uniform Code of Military Justice) whose punitive discharges have been executed but whose sentences have not expired are authorized medical and dental care. Individuals on appellate leave, awaiting execution of a punitive discharge, are also entitled to care. Military prisoners whose punitive discharges have been executed and who require hospitalization beyond expiration of their sentences are not eligible for care, but they may be hospitalized as civilian humanitarian nonmilitary indigents until disposition can be made to some other facility.

SEXUAL ASSAULT AND RAPE

Sexual assault and rape are criminal offenses, often associated with serious injury. The management of cases involving sexual assault and rape must be a joint medical and legal function. A sexual assault investigation kit, supplied by the Naval Criminal Investigative Service, is used to gather and preserve evidence of a crime. Included in this kit are step-by-step procedures for the examination of the patient, as well as a checklist of specimens to be collected.

In order to safeguard and obtain evidence to be used in possible legal proceedings, liaison between the naval treatment facility, military and civil investigative agencies, and state and local agencies (such as Child and Spouse Protective Services) should be established. It must be kept in mind that medical personnel are not to judge, defend, or prosecute the individuals involved. NAVMEDCOMINST 6310.3, *Management of Alleged or Suspected Sexual Assault and Rape Cases*, provides further guidance for the care, evaluation, and medico-legal documentation of the victim of an alleged rape or sexual assault.

Every effort must be made to treat the patient with respect and courtesy and to provide appropriate privacy. In dealing with alleged victims of sexual

assault, careful attention to psychological factors must be given to lessen the impact of the incident. This is especially important when a minor is involved and the reaction of adults may be more harmful than the actual assault itself. Tactful questioning and the use of appropriate terminology are of extreme importance throughout the history taking and examination. OPNAVINST 1752.1, *Sexual Assault Victim Intervention (SAVI) Program,* and SECNAVINST 5800.11, *Victim and Witness Program*, provide guidance for the care and support of victims of sexual assault.

CHILD AND SPOUSE ABUSE AND NEGLECT

The nature of child and spouse abuse and neglect requires a careful patient history and physical examination to identify or rule out past and present injuries caused by abuse or neglect. The policies and guidelines established by the Navy Family Advocacy Program must be followed. This program was discussed earlier in this chapter and is outlined in SECNAVINST 1752.3 and BUMEDINST 6320.70.

SUMMARY

Retaining our high medical standards and the quality healthcare the fleet demands, as well as providing care for military dependents and a constantly expanding retiree database, requires a healthcare administration support structure that is second to none. DEERS management and the determination of patient eligibility are crucial components and only two of the areas discussed in this chapter. Also covered were many of the health-related programs established to benefit and support eligible recipients in the military community. These programs are often meant to eliminate the need for others. Good quality assurance, for example, creates better patient relations, thereby minimizing legal problems; substance abuse and family advocacy programs identify problems before they become unmanageable; and the physical readiness program helps build a healthier Sailor, thus eliminating needless patient visits.

This chapter also provided an overview of the Hospital Corpsman's responsibilities in the area of interaction with legal authorities. Sexual assault, spouse and child abuse, and drug and alcohol incidents require legal and medical teamwork. Many legal battles are lost because of failure to adhere to the proper administrative procedures. As a Hospital Corpsman, you must be aware of these procedures and ensure that they are followed precisely.

CHAPTER 16

DECEDENT AFFAIRS PROGRAM

The Navy's Decedent Affairs Program consists of search, recovery, identification, care, and disposition of remains of deceased personnel for whom the Department of the Navy is responsible. The Decedent Affairs Program is considered a highly visible and extremely sensitive program. Arrangements for the burial of the deceased should be conducted in an expedient but dignified manner, and survivors of the deceased should be given the greatest possible amount of support and assistance.

ASSIGNMENT OF RESPONSIBILITIES

LEARNING OBJECTIVE: *Identify military activities that are responsible for the management of the Navy and Marine Corps Decedent Affairs Program.*

The overall manager of the Navy and Marine Corps Decedent Affairs Program is the Naval Office of Medical/Dental (MEDDEN) Affairs, located at Great Lakes, IL. At the local level, naval hospitals and other naval activities are responsible for inspecting remains, briefing escorts and making travel arrangements, and (for burial at sea) delivering remains to the point of embarkation. Naval hospitals manage deaths that occur at the hospital and in their local catchment (area of responsibility) area. At small independent operational units and on board naval vessels, the responsibility for managing the Decedent Affairs Program falls on the commanding officer or officer-in-charge and the senior Hospital Corpsman. For this reason, Hospital Corpsmen should have a working knowledge of decedent affairs procedures, which are outlined in NAVMEDCOMINST 5360.1, *Decedent Affairs Manual.*

PROGRAMS

LEARNING OBJECTIVE: *Recall the purpose of the Current Death Program, Graves Registration Program, Concurrent Return Program, Return of Remains Program, and the Casualty Assistance Call Program.*

To carry out the various responsibilities of the Decedent Affairs Program, five programs have been established. They are

- the **Current Death Program**,
- the **Graves Registration Program**,
- the **Concurrent Return Program**,
- the **Return of Remains Program**, and
- the **Casualty Assistance Calls Program**.

CURRENT DEATH PROGRAM

The Current Death Program provides professional mortuary services, supplies, and related services incident to the care and disposition of remains of persons eligible for these services. Under this program, remains are shipped to a place designated by the primary next of kin (PNOK), such as a spouse or parents, for permanent disposition. The decedent's personal effects will also be shipped to the legal recipient. The Current Death Program is normally operational on a worldwide basis during peacetime, but may also be used during major conflicts.

GRAVES REGISTRATION PROGRAM

The Graves Registration Program (GR or GRREG) provides for the search, recovery, evacuation (to a temporary cemetery or a mortuary), initial identification, disposition of personal effects found with each deceased, and burial of deceased persons in temporary cemeteries. This program is only operational when authorized by the responsible commander during major military operations. When necessary, the GR program includes the establishment and maintenance of temporary burial sites. Detailed guidance on graves registration procedures are contained in the Navy and Marine Corps publication NAVMED P-5016/NAVMC 2509A, *Handling of Deceased Personnel in Theaters of Operation*.

CONCURRENT RETURN PROGRAM

The Concurrent Return Program combines the Current Death Program and Graves Registration

Program. This program provides for the search, recovery, and evacuation of remains to a processing point; identification and preparation of remains in a mortuary; and shipment, for permanent disposition, to a final destination designated by the PNOK. The Concurrent Return Program normally becomes operational when large numbers of military personnel are committed to a strategic area.

Remains buried in temporary cemeteries (under the GR program or in emergencies) will normally be disinterred and evacuated under the Concurrent Return Program if conditions and capabilities permit.

RETURN OF REMAINS PROGRAM

The Return of Remains Program provides for permanent disposition of remains of persons buried in temporary cemeteries who could not be evacuated under the Concurrent Return Program. The Return of Remains Program is activated only upon the enactment of special legislation. This special legislation may authorize the establishment of one or more permanent American cemeteries in the overseas area and may give PNOK the option of having the remains buried therein or shipped to another place of their choosing. When the Return of Remains Program becomes activated, the Chief, Bureau of Medicine and Surgery (BUMED), is responsible for advising field activities of its activation.

CASUALTY ASSISTANCE CALLS PROGRAM

The Casualty Assistance Calls Program (CACP) is administered by the Commander, Naval Military Personnel Command (COMNAVMILPERSCOM), and the Commandant of the Marine Corps (CMC). Although integrally related, the CACP is not part of the Decedent Affairs Program. The CACP details a Casualty Assistance Calls Officer (CACO), usually a commissioned officer (although senior enlisted personnel may be used), to personally contact the PNOK. The CACO helps the PNOK and SNOK (secondary next of kin—children over 18, brother, etc.) with problems surrounding the death, and provides information on such matters as

- disposition of remains,
- death gratuity and unpaid pay and allowances,
- personal effects of the deceased,
- settlement of the decedent's estate (wills, bank accounts, property, savings bonds, commercial insurance, etc.),
- Servicemen's Group Life Insurance (SGLI), and
- travel of dependents to grave site and to permanent residence.

The Navy and Marine Corps Casualty Assistance Calls Programs are operated differently. The individual service instructions noted below should be consulted for specifics.

- NAVPERS 15560, *Naval Military Personnel Manual* (MILPERSMAN)
- BUPERSINST 1770.3, *The Navy Casualty Assistance Calls Program (CACP) Manual*
- MCO P3040.4, *Marine Corps Casualty Procedures Manual* (MARCORCASPROC-MAN)

ELIGIBILITY FOR DECEDENT AFFAIRS

LEARNING OBJECTIVE: *Identify individuals who are eligible for decedent affairs benefits.*

Navy and Marine Corps members who expire while serving on active duty or active and inactive duty for training are entitled to Decedent Affairs Program benefits. Generally, the following persons under the jurisdiction of the Department of the Navy are entitled to some decedent affair benefits: dependents, retirees, and civilian employees. For details, see NAVMEDCOMINST 5360.1, *Decedent Affairs Manual.*

NOTIFICATION OF DEATH

LEARNING OBJECTIVE: *Identify forms used to report casualties, deaths, and personnel missing or missing in action.*

As soon as possible after it is determined that a casualty has occurred, submit a casualty report in accordance with MILPERSMAN 4210100. When death occurs, complete the "Personnel Casualty Report (Death), Report Symbol NMPC 1770-4

Officer/Enlisted." For missing personnel, complete the "Personnel Casualty Report (Missing/Missing in action), Report Symbol NMPC 1770-4 Officer/ Enlisted."

PERSONNEL CASUALTY REPORT

A personnel casualty report must be completed for the following persons who become casualties:

- Active duty Navy
- Retired Navy
- Certain former service members
- Certain military dependents
- Members of other Armed Forces
- Civilians serving with or attached to Navy commands
- Others whose deaths occur on naval reservations or aboard ships

When a member becomes a casualty, his commanding officer should submit a personnel casualty report. However, if a service member becomes a casualty while away from his command, the command or activity that learns of the casualty occurring should submit the personnel casualty report. The member's command should supplement the personnel casualty report that was previously submitted by another command.

METHOD OF REPORTING CASUALTIES

Personnel casualty reports should be sent by priority message.

Action Addressees on Personnel Casualty Reports

The following activities should be action addresses on personnel casualty reports:

1. Commander, Naval Military Personnel Command
2. Chief, Bureau of Medicine and Surgery
3. Casualty Assistance Calls/Funeral Honors Support (CAC/FHS) Program coordinators of the area in which the primary and secondary NOK reside, or the appropriate overseas CAC/FHS program coordinator
4. The Naval Office of Medical/Dental (MEDDEN) Affairs

Information Addressees on Personnel Casualty Reports

The following activities should be listed as information addresses on personnel casualty reports:

1. Secretary of the Navy
2. Navy Finance Center
3. Navy Family Allowance Activity, Cleveland (if the member reported is in a missing status, or if the status is being changed from missing to deceased)
4. The CAC/FHS program coordinator of the area in which the casualty occurred
5. The Chief of Naval Operations (if the casualty is incidental to operations, and on all reports of progress in searches for missing members)
6. The appropriate home port/station, type commander, appropriate operational and administrative commands, and the Enlisted Personnel Management Center (EPMAC)
7. The command or activity designated by the CAC/FHS program coordinator to provide casualty assistance
8. The Fleet Home Town News Center
9. The Naval Safety Center
10. The Judge Advocate General
11. The Appropriate Naval Legal Service Office (if the casualty is the result of other than natural causes)
12. The Armed Forces Institute of Pathology

If the decedent was a Marine Corps member, follow the notification procedures and message formats contained in the MARCORCASPROCMAN, MCO P3040.4.

NOTIFICATION OF NEXT OF KIN

LEARNING OBJECTIVE: *Recall notification of next of kin procedures.*

In cases of death, primary next of kin are personally notified by a uniformed Navy or Marine

Corps representative, as appropriate. Personal notification of the PNOK will normally be made between 0600 and 2200, except under unusual circumstances (e.g., the new media is expected to make a press release; or the member has been hospitalized in serious or very serious condition within CONUS, and the NOK is already aware of the prognosis).

When a death occurs within CONUS, it is the responsibility of the member's commanding officer to make sure that personal notification is made. Outside CONUS, the COMNAVMILPERSCOM will make sure that personal notification is made through the appropriate senior commander overseas.

CONFIRMATION OF THE CASUALTY

Notifications that are not made by telegram should be confirmed by a telegram, unless the PNOK or SNOK has specifically stated that written confirmation is not desired. This follow-up notification should take place within 24 hours of the personal notification.

See MILPERSMAN 4210100 for examples of basic telegram formats for notification and confirmation of death. The formats are presented for guidance only, and rigid adherence is not required.

CONDOLENCE LETTER

Commanding officers are required to write a letter to the appropriate NOK within 48 hours of a casualty. The letter, in addition to expressions of condolence, should contain appropriate details of the casualty; however, no details should be included that are likely to distress the NOK. A copy of the letter is sent to the COMNAVMILPERSCOM and Office of the Judge Advocate General (OJAG)—Investigations Division. Example formats for condolence letters can be found in the *Decedent Affairs Manual.*

AUTOPSY

LEARNING OBJECTIVE: *Determine under what circumstances an autopsy should be performed.*

An autopsy will be performed on the remains of all persons who die on active duty or active duty for training when the commanding officer (CO) deems it necessary. The CO's request may be self-initiated or based upon the recommendation of an investigating officer, other fact-finding body, or a medical officer. An autopsy may be necessary to determine the true cause of death, to get information for completing military records, or to protect the welfare of the military community.

AIRCREW AUTOPSY

The *Manual of the Medical Department* (MANMED), NAVMED P-117, states that when an aircrew member dies while serving as an aircrew member on a military aircraft, the medical officer will recommend to the CO that an autopsy be performed to determine the cause of death. The cause of death in these cases is interpreted to mean any correlation between pathological evidence and the accident cause factor.

REQUESTING PERMISSION FOR AUTOPSY

When an autopsy is desired but not mandatory, the following sentence will be incorporated in the casualty notification message that requests disposition instructions from the PNOK:

"In the interest of medical science and to confirm medical diagnosis, it is requested that your telegram include whether or not permission is granted to accomplish mortem examination."

NONMILITARY AND RETIRED PERSONNEL AUTOPSY

When an autopsy is deemed necessary for retired personnel or nonmilitary persons who die at a naval treatment facility or on a Navy installation, written authorization from the NOK must be obtained before performing the autopsy. The request for permission to perform an autopsy should be incorporated in the casualty notification message, as noted above.

SEARCH, RECOVERY, AND IDENTIFICATION

LEARNING OBJECTIVE: *Recall procedures used to search for, recover, and identify remains.*

The search for, recovery, and identification of remains should be accomplished as soon as possible

and should be coordinated with an administrative fact-finding body. Normally, the need for these operations results from acts of violence, such as an aircraft accident, fire, explosion, or natural disaster. The *Manual of the Judge Advocate General* (JAGMAN), JAGINST 5800.7, requires the convening of an administrative fact-finding body when incidents of this nature occur. This responsibility is usually delegated to a naval activity with necessary capabilities at or near the scene of disaster. In establishing identification of remains, search and recovery operations are part of the fact-finding body's functions, with technical assistance furnished by appropriate medical authorities.

SEARCH AND RECOVERY

Every effort should be made to recover all remains. In disasters such as aircraft accidents, fires, explosions, etc., involving the death of naval members and members of other services, notify the Bureau of Medicine and Surgery (BUMED) and MEDDEN Affairs by priority message. This assures immediate interdepartmental cooperation and the early dispatch of necessary supplies, equipment, medical and dental records, and technical personnel. The priority message should include the following information:

- Name, grade or rate, and social security number of all personnel believed dead or missing
- Names of those personnel already identified and method of identification
- Names of those personnel tentatively already positively identified, and whether remains are anatomically intact
- Type and quantity of mortuary supplies, transfer cases, chemicals, and other equipment required
- Whether technical help is desired

Do not release information to the NOK, family, or news media unless specific instructions are received from BUMED and MEDDEN Affairs to do so.

When search, recovery, and identification operations continue for more than 36 hours, chronological progress reports should be dispatched every 24 hours to BUMED and MEDDEN Affairs, with the appropriate information addressees directed by NAVMEDCOMINST 5360.1.

IDENTIFICATION

When the CO is satisfied that identification has been established beyond doubt and documented accordingly, the remains may be considered identified. A minimum of two statements of recognition, substantiated by dental and/or fingerprint comparison or intact remains, will substantiate identification requirements.

MEDDEN Affairs will establish final conclusions and take action required for final disposition of these remains if shipped from outside CONUS to CONUS. Disposition of unidentified remains will be directed by the MEDDEN Affairs or the CMC, as appropriate.

After thorough study of all evidence, final conclusions made by MEDDEN Affairs will result in one of the following determinations:

- Identification of the remains
- Unidentified, but believed to be a specific individual
- Unidentified, unknown
- Group remains, known individuals
- Group remains, unknown individuals

When an autopsy of remains is required or requested, the identification specialist should schedule the autopsy to be performed during the identification process or immediately following. This will preclude any delays in releasing the body for burial and make sure that methods of identification are included in the autopsy report.

Personal effects found on or with remains, after having served all identification purposes, will be disposed of in accordance with current instructions contained in the *Naval Supply Manual*, NAVSUP P-485, or the MARCORCASPROCMAN, MCO P3040.4, as appropriate.

IDENTIFICATION PROBLEMS

All remains, except those that have been positively identified and are anatomically complete, will require additional study and processing by an identification specialist. The MEDDEN Affairs may be requested to provide an identification specialist to visit the activity and make a complete review, to assure that all possible techniques, methods, and procedures have been used to provide a positive identification. The CMC should be an information addressee when members of the Marine Corps may be involved. When members of

other services are involved, BUMED and MEDDEN Affairs should be notified by priority message to ensure immediate interdepartmental coordination.

PROCURING MORTUARY SERVICES

LEARNING OBJECTIVE: *Recall mortuary services procurement methods, and recognize primary and secondary burial expenses.*

Mortuary services for the remains of individuals eligible for Decedent Affairs Program benefits outside CONUS are specified in local instructions. Mortuary services within CONUS are provided by naval activities through annual contracts, individual purchase orders, or by private arrangements.

ANNUAL CONTRACTS

Annual contracts are awarded to funeral directors serving the local area of activities anticipating 10 or more deaths per year.

ONE-TIME CONTRACTS

One-time contracts (individual purchase orders) are issued by an activity to a funeral home when an annual contract is not in effect.

PRIVATE ARRANGEMENTS

Private arrangements are made by the PNOK. The PNOK should be advised of services and supplies available through Navy sources and on reimbursement limitations. Reimbursement limitations and reimbursement forms can be obtained by contacting MEDDEN Affairs or the local naval hospital's Decedent Affairs Office.

AUTHORIZED SERVICES

Annual contracts and one-time contracts cover primary funeral expenses but do not include secondary expenses. NOK should be tactfully encouraged to allow the Navy to make all primary-care arrangements, since greater benefits can be furnished throughout procedures. For more information concerning procedures and authorized items, consult NAVMEDCOMINST 5360.1. Primary and secondary funeral expenses are explained in the following sections.

Primary Expenses

Primary expenses are expenses incurred in connection with the recovery, preparation, encasement, and burial of the remains. Primary expenses include

- expenses incurred in the recovery and removal of remains,
- embalmment,
- casket and shipping case,
- cremation,
- interment,
- clothing (e.g., military uniform), and
- delivery of the remains to a common carrier terminal, a local cemetery, or crematorium.

Secondary Expenses

Secondary expenses are expenses incurred in connection with the funeral and burial of remains. Secondary expenses include

- funeral coach,
- transportation of relatives to the cemetery,
- gravesite,
- vault,
- funeral director's services,
- clergyman's services,
- opening and closing the grave,
- floral tribute, and
- obituary notices.

PREPARATION AND PROCESSING REMAINS

LEARNING OBJECTIVE: *Recall procedures for preparing and processing remains.*

It is imperative that preservative treatment be initiated as soon as possible after death. The naval authority with decedent affairs responsibility should maintain close coordination with appropriate military or civilian authorities to ensure the prompt release and

delivery of remains to the mortuary facility. Remains must be prepared under approved high standards of the mortuary profession and returned to the final destination in their most normal and lifelike appearance.

INITIAL PREPARATION

Remains may be refrigerated for short periods pending arrival of a transportation vessel or arrival of the government embalmer. To minimize cellular deterioration, remains should be refrigerated above the freezing point at 36° to 40°F (2.2° to 4.4°C).

OVERSEAS FACILITIES

Government mortuary facilities are located in various overseas areas and have the responsibility to furnish mortuary services for all eligible categories of military and civilian personnel. The geographical areas of responsibility are outlined in the CINCPACINST 5360.1, *Geographic Responsibilities for Mortuary Operations*. Also consult NAVMEDCOMINST 5360.1 for locations of overseas mortuaries.

When death occurs in overseas areas not served by facilities listed in NAVMEDCOMINST 5360.1, request assistance from the senior naval command. In some areas, Department of State sources may have the capability to render advice or assistance. The senior naval command may also be able to arrange airlift of remains from the place of death to a point where a government mortuary or a commercial facility is available, or arrange for emergency dispatch of a qualified embalmer from an overseas government mortuary to the place of death.

CERTIFICATE OF DEATH (OVERSEAS)

When remains are transferred from an overseas activity to a CONUS point of entry, three signed copies of DD Form 2064, *Certificate of Death (Overseas),* must accompany the remains. Failure to include the DD Form 2064 may cause delays in providing further transfer within CONUS. Additionally, at least two DD Form 565, *Statement of Recognition*, should be included.

BURIAL CLOTHING

The service dress blue uniform or (if this uniform is not available for deceased personnel) the appropriate winter service dress uniform, with authorized insignia, devices, badges, decorations, underwear, and hose are the only approved items for burial, unless other items are specifically requested by the NOK. Shoes and headgear should also be procured when required or requested. These items may be withdrawn from the deceased's personal effects or purchased from the Navy Exchange, Navy Retail Clothing Store, or Marine Corps Clothing Store. When not available through these sources, procurement through commercial sources is authorized. When suitable items are not available for personnel who die outside the 48 contiguous United States, the U.S. port of entry should be contacted and given estimated uniform sizes, as soon as possible, so burial clothing can be purchased. Funding for uniform items is noted in NAVMEDCOMINST 5360.1.

When requested by the NOK, remains may be attired in a white uniform or civilian clothing consisting of appropriate outer clothing, underwear, hose, and, if specifically requested, shoes. Items of clothing in the individual's possession at the time of death should be used if available and in satisfactory condition.

PLACEMENT OF REMAINS IN CASKET OR TRANSFER CASE

Normally, remains are placed in a specification casket or transfer case in a manner that will create an appearance of rest and composure. Precautions should be taken to ensure maintenance of position during transit.

Each remains returned in a transfer case will be wrapped in a white cotton sheet plus a second wrapping in a polyethylene cover, and sealed with pressure-sensitive tape or heat sealed.

CASKETS

There are two sizes of caskets. Each is an 18-gauge silvertone metal sealer with a cut top. The standard size casket has internal dimensions of 23 x 78 inches (58.4 cm x 1.98 m), while the oversize casket has internal dimensions of 25 x 81 inches (63.5 cm x 2.06 m).

INSPECTION OF REMAINS

After processing or reprocessing and before shipment, all remains should be inspected in accordance with NAVMEDCOMINST 5360.1. The decedent affairs officer (DAO) is responsible for

expediting arrangements for transportation. As such, personnel should be available at all times, including Saturdays, Sundays, and holidays, to perform inspections. Before acceptance, the inspector must make sure that all services and supplies meet current specifications.

CREMATION

LEARNING OBJECTIVE: *Recall guidelines for requesting cremation of remains.*

When requested in writing or by telegram, cremation is authorized, subject to compliance with civil regulations. No overt action by naval authorities should be made to encourage the NOK to elect cremation. Cremation will not be permitted if any questions exists concerning an individual's legal right to direct disposition of the remains.

AT-SEA DISPOSITION

LEARNING OBJECTIVE: *Recall burial-at-sea procedures.*

Commanding officers who receive requests for at-sea disposition of remains or cremains (cremated remains) will forward the request to the appropriate fleet commander-in-chief (CINC) and requested port of embarkation. Fleet CINCs are authorized to designate activities to accept remains or cremains on a "not-to-interfere basis." The port of embarkation will coordinate the arrangements. Upon receipt of authorization, the date of committal or dispersion will be determined by the availability of resources. Except under unusual circumstances, civilian personnel will not be authorized to attend services aboard naval ships at sea or aboard naval aircraft. Exceptions that cannot be resolved at the delegated authority level will be referred to the CNO for final determination. Refer to NAVMEDCOMINST 5360.1 for eligibility and specifics.

PUTREFIED REMAINS

When the mortician is unable to arrest the odor of remains, they will not be accepted for burial at sea. The odor generated for such remains will detract from the dignity of the ceremony and will have a detrimental effect on the officers and men of the vessel. Cremated putrefied remains may be accepted.

CEREMONY RECORDS

Since civilians are not normally allowed to attend ceremonies aboard naval ships or aircrafts, photographs and/or video of the ceremony will be taken. Both a letter describing the ceremony and the burial flag will be sent to the NOK, in accordance with NAVMEDCOMINST 5360.1.

CONSIGNMENT AND TRANSPORTATION OF REMAINS

LEARNING OBJECTIVE: *Recall consignment policies and authorized methods of transportation of remains.*

Activities that arrange transportation have the responsibility to provide expeditious transportation and a confirmed schedule as soon as possible by whatever methods meet the requirements. Consideration should be given to any special desires of the NOK, including releasing the remains for transportation that they may wish to provide.

CONSIGNMENT

Remains may only be consigned to a funeral director, the director or superintendent of a national cemetery, or the consignee designated by the MEDDEN Affairs for unclaimed remains. In addition to the above consignees, cremains may be consigned to the PNOK or person designated by the PNOK.

AUTHORIZED METHODS OF TRANSPORTATION WITHIN THE UNITED STATES

Authorized methods of transportation within the United States include government air, commercial air, chartered air taxi, and funeral coach.

Government Air

Government air **is not** authorized within CONUS without approval of the CNO (OP-414). If the circumstances indicate government air, MEDDEN

Affairs should be contacted for guidance and assistance.

Commercial Air

Commercial air may be supplemented by either rail or funeral coach transportation. An escort must travel with the remains. If delays en route or changes in schedule occur, the escort must notify the installation arranging the transportation and the consignee.

Chartered Air Taxi

Chartered air taxi service may be authorized when commercial air is not available to the destination and the use of a funeral vehicle or rail would cause undue delay.

Funeral Coach

The funeral coach method of transportation may be used under any of the following circumstances:

- To transfer remains from the place of preparation to another local funeral home, to a local cemetery, or to a common-carrier terminal
- When common-carrier service is not available
- When a common carrier is available only part of the way to the place designated by the PNOK, then funeral coach service may be used for the remaining portion of the transportation authorized
- When the cost is not in excess of the common-carrier cost
- When the cemetery cannot provide transportation from the terminal to the cemetery, a funeral coach may be used as a continuation of common-carrier service when remains are consigned directly to a national cemetery or a Navy cemetery or plot
- To transfer remains from the common-carrier terminal at destination to the funeral establishment, and to deliver remains to the local cemetery or crematory
- When requested by the NOK, and the family member defrays costs in excess of the method that would have been used by the government
- When the use of a common-carrier service will involve extended layover, and this method will expedite the arrival

TRANSPORTATION OF CREMATED REMAINS

Cremated remains (cremains) of active duty personnel will be hand carried by an escort, and transported using commercial air, rail, a funeral director's vehicle, or other appropriate vehicle. When an escort is not authorized, cremains may be transported by registered mail (preferred method), air, or surface transportation to the PNOK, or to a specified individual designated by the PNOK.

TRANSPORTATION OF REMAINS OF CONTAGIOUS OR COMMUNICABLE DISEASE VICTIMS

When death is the result of a contagious or communicable disease, remains, after embalming, should be placed immediately in a transfer case or casket. The transfer case or casket should be closed immediately and a gummed 2" x 4" label, marked "CONTAGIOUS" should be affixed to the outside of the receptacle at the head end. Information concerning diseases considered contagious may be obtained from local or state health officials. When the remains carry communicable or contagious disease, make sure that the consignment message specifically states that death was due to a contagious or communicable disease.

AUTHORIZED TRANSPORTATION TO OR FROM CONUS

Remains of eligible decedents who die outside the 48 contiguous United States will be transported by the most expeditious U.S. government means; normally, government air (Air Mobility Command (AMC) flights) are used. If such transportation is not available, impractical, or would cause undue delay, commercial air may be authorized by MEDDEN Affairs.

OUTSIDE CONUS DESTINATIONS

When persons eligible for decedent affairs benefits are consigned to a destination outside the 48 contiguous United States, the activity responsible for preparation and transportation will contact the nearest consul of the country concerned to ascertain the requirements for entry, and assure that all requirements are met before arranging transportation of the remains. Failure to do so could lead to serious delays. Three certified copies of the civilian certificate of death should accompany the remains.

ESCORTS

LEARNING OBJECTIVE: *Recall criteria for escort selection, and identify escort duties and responsibilities.*

Escorts are provided to accompany remains to ensure prompt, safe delivery, as a mark of respect to the decedent, and as an indication of the Navy's desire to help the NOK. Only one escort is authorized. More than one may be assigned; however, two escorts may not serve at the same time. Problems concerning arrangements for a Navy escort that cannot be resolved by the responsible command should be referred to MEDDEN Affairs or the area commander outside CONUS. Problems concerning Marine Corps members should be referred to CMC.

INSIDE CONUS ESCORTS

Within CONUS, escorts are detailed to accompany the remains or cremains of each Navy and Marine Corps decedent to their final destination. Furnishing escorts is the responsibility of the activity arranging transportation of the remains or cremains. When selecting an escort for the deceased, the activity arranging transportation is encouraged to consult the last duty station of the deceased.

OUTSIDE CONUS ESCORTS

When remains are consigned to a place outside CONUS where Armed Forces representatives or other government officials are not available to receive, transfer, or otherwise assist in transportation arrangements, military escorts will be provided.

Unless a special escort is requested by the PNOK and approved by MEDDEN Affairs, remains transported by AMC aircraft from a point outside CONUS to a CONUS port of entry will not be accompanied by an escort. The aircraft commander will act as the escort during the time of transport by AMC aircraft. An escort will be detailed by the military activity responsible for transportation arrangements at the CONUS port of entry.

SELECTION OF ESCORTS

Any Navy or Marine Corps member on active duty may serve as an escort. Navy and Marine Corps members who volunteer may be accepted if they meet the criteria for selection. Unless a special escort is requested by the NOK, the escort selected should be of the same branch of service, status, and paygrade of the deceased. The escort should be a friend of the deceased, from the same unit, and preferably of the same religion.

SPECIAL ESCORTS

A special escort is defined as a person requested specifically by the PNOK or by his representative, or a person assigned by an appropriate command because unusual circumstances prevail and such assignment is considered in the best interest of the naval service. All requests for special escorts must be referred to MEDDEN Affairs.

If desired by the PNOK, a civilian or member of another service may be assigned as a special escort. An escort in retired or inactive status should be treated as a civilian. All military special escorts are assigned subject to availability as determined by their CO and, unless closely related to the deceased, generally are not authorized outside CONUS.

DUTIES OF THE ESCORT

A naval escort is a representative of the Navy who will be required to perform services of a very special and personal nature. It is very important that these duties are thoroughly explained to the escort. Providing instructions to the escort is the responsibility of the command arranging for transportation of the remains. The *Manual for Escorts of Deceased Naval Personnel*, NAVPERS 15955, will assist in this function. For additional information, you should consult NAVMEDCOMINST 5360.1.

DISPOSITION OF PERSONAL EFFECTS

LEARNING OBJECTIVE: *Recall disposition of personal effects policies.*

All personal effects of the deceased are to be collected and inventoried, except where the member occupied government or public housing and the spouse requires no assistance. In the event the spouse dies simultaneously with the service member, the CO cooperates with surviving relatives of the deceased and civil authorities by providing protection for the property of the deceased.

The CO appoints an inventory board consisting of two members, of which one member is normally a

commissioned officer. The inventory should be recorded on an Inventory of Personal Effects Form, NAVSUP Form 29. An original and four copies will be prepared and signed by the board members. The board will send all five copies with the personal effects to the supply officer for completion, disposition, and signature. The supply officer returns three signed copies. The inventory board sends one copy to the COMNAVMILPERSCOM, files one in the service record of the deceased, and sends one to the officer who appointed the board.

CIVIL CERTIFICATES OF DEATH

LEARNING OBJECTIVE: *Determine when civil certificates are required and where they should be distributed.*

A civil certificate of death must be obtained if a death occurs within one of the 50 United States or the District of Columbia. If a death occurs outside these areas, with the exception of Guam, a *Certificate of Death (Overseas)*, DD 2064, should be prepared. This certificate is in addition to the civil certificate of death; however, the civil certificate of death is not required in all overseas areas. Civil authorities should be consulted to determine local requirements. When a death occurs at a naval activity in any state, territory, or insular possession of the United States, the CO will report the death to civil authorities (usually the coroner or medical examiner). It is a general practice for medical officers to complete a civil certificate of death for all deaths occurring in naval medical treatment facilities.

The medical officer or Medical Department representative of the ship or station where the deceased was attached will obtain the certificate from the civil authorities. If requested by the authorities, the civil certificate of death may be prepared and signed by a naval officer. If problems arise in getting a certificate, request assistance from MEDDEN Affairs. If death occurs abroad and no naval activity is available, the nearest consular officer should be requested to get a certificate. The medical officer or Medical Department representative will prepare and forward a DD 2064 with the civil certificate of death, supporting papers, and the closed health record.

In general (except where the state has retained concurrent jurisdiction with the United States, civil authorities have no jurisdiction over deaths occurring on naval reservations. However, a transit or burial permit should be obtained from civil authorities to remove the remains from a naval reservation either for shipment or burial. If death of any person for whom the Department of the Navy is responsible occurs outside the limits of a naval reservation, the remains normally will not be moved until permission has been received from civil authorities.

DISTRIBUTION OF DEATH CERTIFICATE FOR DEATHS OCCURRING IN CONUS

When a Navy or Marine Corps death occurs in one of the 50 United States or the District of Columbia, follow local civil requirements. In addition, the following procedures in table 16-1 apply:

DISTRIBUTION OF DEATH CERTIFICATE FOR DEATHS OCCURRING OUTSIDE CONUS

When a Navy or Marine Corps death occurs outside the 50 United States or the District of Columbia, follow the local civil requirements. In

Table 16-1.—Distribution of Death Certificate for Deaths Occurring in CONUS

For CONUS decedents. . .	Send copy of death certificate to. ..
Active Duty	Commanding Officer Naval Medical Information Management Center Bethesda, MD 20814 *(Place one copy in member's closed health record.)*
Inactive Duty	Naval Reserve Personnel Center 4400 Dauphine Street New Orleans, LA 70149
Active/Inactive Marines	Commandant of the Marine Corps (Code MSPA-1) Department of the Navy Washington, DC 20380

addition, a DD 2064 is prepared and copies are distributed as outlined in table 16-2.

DEATH CERTIFICATES FOR SHIPMENT OF REMAINS

When death occurs outside CONUS, three signed copies of DD 2064 will accompany the remains to CONUS. When death occurs within CONUS, three certified copies of the civil certificate of death will accompany the remains from CONUS to outside CONUS, in addition to all other forms required by NAVMEDCOMINST 5360.1.

NOTE: A certificate of death should not be prepared for persons listed as missing.

Table 16-2.—Distribution of Death Certificate for Deaths Occurring in Outside CONUS

For OUTUS decedents. . .	Send copy of death certificate to. . .
Active Duty	Commanding Officer Naval Medical Information Management Center Bethesda, MD 20814 *(The original death certificate is placed in member's closed health record.)*
Inactive Duty	*Navy personnel:* Naval Reserve Personnel Center 4400 Dauphine Street New Orleans, LA 70149 *Marine Corps personnel:* Commandant of the Marine Corps (Code MSPA-1) Department of the Navy Washington, DC 20380
Other deaths	The command indicated if the death occurred aboard a ship, at a naval station, or on a naval aircraft. For full details, see MANMED.

PAYMENTS AND COLLECTIONS

LEARNING OBJECTIVE: *Recall funeral payment and collection procedures.*

Authorized Decedent Affairs Program expenses are chargeable to the special open allotment held by BUMED. In circumstances involving reimbursable transactions, costs may also be initially charged to the open allotment subject to reimbursement. The allotment may be charged by any Navy or Marine Corps activity assigned procurement or payment responsibility. Army and Air Force activities may charge the allotment when arranging for authorized supplies and services at the request of a naval activity.

PRIMARY EXPENSES

If the NOK makes arrangements for disposition of remains, rather than using services of DoD, or completes funeral arrangements before DoD services are offered, the amounts outlined below are allowed toward incurred expenses. The figures quoted are subject to change, so check the latest series of NAVMEDCOMINST 5360.1 for the authorized allowances, or contact the MEDDEN Affairs.

When an Armed Forces contract or mortuary is available (and services were offered to the NOK) but not used, an amount not to exceed what procurement would have cost the Navy is allowed. This includes costs the Navy would have incurred over and above contract expenses. Contact MEDDEN Affairs for current allowance limits.

TRANSPORTATION EXPENSES

If the NOK arranges for transportation of remains, reimbursement may be made in an amount not to exceed what transportation would have cost the government. If the Navy has arranged for transportation and the final destination cannot be reached by common carrier, reasonable costs may be allowed for supplemental transportation by funeral coach or other vehicle.

SECONDARY (INTERMENT) EXPENSES

Secondary expenses will be provided to the NOK whether the remains or cremains are interred in a private cemetery, a national or federal government cemetery, or in a burial at sea. The allowance paid for each method of interment will be in accordance with

NAVMEDCOMINST 5360.1, *Decedent Affairs Manual*.

MEMORIAL SERVICE FOR NONRECOVERABLE REMAINS

When remains of eligible military personnel, whose determination of death has been made, are nonrecoverable, reimbursement to the PNOK (or designee) may be made for memorial service expenditures. A claim for reimbursement may be allowed if presented within the approved time frame after notification of the NOK of the date of death. The PNOK must submit receipted invoices or a certified claim to MEDDEN Affairs.

HEADSTONES AND MARKERS

Personnel serving on active duty at the time of their death are eligible for a headstone or marker provided by the Veterans' Administration (VA). At a national cemetery, the director or superintendent will make the arrangements. In naval plots and cemeteries, the Navy will make the arrangements. In other cemeteries, an application should be submitted to the VA. If a commercial headstone or marker is procured, a limited reimbursement is authorized. A memorial marker may be provided upon request to commemorate the death of a member whose remains were not recovered or were buried at sea.

REIMBURSEMENT PROCEDURES

LEARNING OBJECTIVE: *Recall procedures for reimbursement of funeral costs.*

When the Navy has arranged for primary services and transportation, a claim for payment of the supplemental transportation charges may be submitted to MEDDEN Affairs by the funeral director at the final destination.

DD Form 1375, *Request for Payment of Funeral and/or Interment Expenses*, should be given to the PNOK (or PNOK's designee) to claim reimbursement or payment for primary expenses, transportation, and secondary expenses.

GOVERNMENT SERVICES NOT UTILIZED WITHIN CONUS

Claims relating to primary expenses and transportation costs to a common-carrier terminal for transportation to the final destination will be forwarded to MEDDEN Affairs.

Claims relating to interment (secondary) allowances and supplemental transportation costs will be forwarded to MEDDEN Affairs.

GOVERNMENT SERVICES NOT UTILIZED OUTSIDE CONUS

Area commanders outside CONUS are authorized to make local payment of expenses incurred in areas under their jurisdiction.

Claims in areas outside the jurisdiction of the activities (area commanders) noted in NAVMEDCOMINST 5360.1 should be submitted to BUMED for resolution.

GOVERNMENT SERVICES UTILIZED

When the Navy has arranged for primary services and transportation, submit claims for payment and reimbursement of interment costs or supplemental transportation expenses to MEDDEN Affairs.

REPORTING EXPENSES

LEARNING OBJECTIVE: *Recall reporting procedures for funeral expenses.*

Activities incurring expenses in connection with disposition of remains of Navy and Marine Corps personnel do not report these expenses to BUMED except when indicated on the DD Form 2062, *Record of Preparation and Disposition of Remains (Outside CONUS)*, and DD Form 2063, *Record of Preparation and Disposition of Remains (Within CONUS)*. In arranging for disposition of remains of other services' deceased personnel, activities obtaining services and supplies from commercial sources should forward a letter report, MED 5360-3, *Report of Disposition and Expenditures–Remains of the Dead*, to the service concerned. Costs for which the activity's funds have been cited should be shown on the letter report.

NATIONAL CEMETERIES

LEARNING OBJECTIVE: *Recall services that are available at national cemeteries.*

Except for Arlington National Cemetery (which is under the jurisdiction of the Department of the Army) and a few other exceptions noted in NAVMEDCOM-INST 5360.1, national cemeteries are under the jurisdiction of the Chief Memorial Affairs Director, Department of Memorial Affairs, Veterans' Administration, Washington, DC.

NATIONAL CEMETERY CLASSIFICATIONS

There are three classifications of national cemeteries:

1. **Open (Active)**—Cemeteries with grave spaces available.
2. **Closed (Inactive)**—Cemeteries without grave spaces available.
3. **New (Inactive)**—Cemeteries planned but not yet opened.

ELIGIBILITY FOR INTERMENT

Remains of the following naval and former naval members may be buried in any open national cemetery except at the National Cemetery at Arlington, Virginia:

- Navy or Marine Corps member who was serving on active duty at time of death (other than active duty for training).
- Former Navy or Marine Corps members who were discharged under conditions other than dishonorable.
- Any member of a Navy or Marine Corps Reserve organization whose death occurred under honorable conditions while the individual was
    1. On active duty for training (including authorized travel to and from active duty training),
    2. on inactive duty training (including authorized travel to and from such training), or
    3. hospitalized or undergoing treatment at the expense of the government for injury or disease incurred or contracted during the period covered by 1 and 2, above.
- Members of the Naval Reserve Officers' Training Corps whose death occurred under honorable conditions while they were
    1. attending an authorized training camp or authorized training cruise,
    2. performing authorized travel to and from that camp or cruise, or
    3. hospitalized or undergoing treatment at the expense of the government of the United States for injury or disease incurred or contracted during the period covered by 1 and 2, above.
- Surviving spouse and minor children of individuals covered above.

(For further information on interment eligibility at Arlington, consult NAVMEDCOMINST 5360.1.)

At the discretion of the Chief Memorial Affairs Director, unmarried adult children of eligible individuals may be buried in any open national cemetery (except Arlington) if they were totally disabled either physically or mentally before attaining the age of 21. The Chief Memorial Affairs Director may also authorize the burial of unremarried widows or widowers or eligible deceased members whose remains were either lost at sea or buried at sea not at their own volition, or who were officially determined missing or missing in action and subsequently administratively declared dead for the purpose of terminating missing or missing-in-action status.

HONORS

Military honors for interment in national cemeteries are the responsibility of the member's service. Honors for services at Arlington National Cemetery are coordinated by the superintendent of the cemetery with BUPERS or the CMC, as appropriate.

VAULTS

A metal, asphalt, or concrete vault may be procured at the NOK's expense, if it is preferred. If a vault is privately procured, the superintendent/director must be notified of the outside dimensions to ensure the proper preparation of the grave. The contractor furnishing the vault must also provide necessary equipment and personnel for placing the vault in the grave before the funeral service and for placement of the vault lid after the service.

VIEWING REMAINS

National cemeteries no longer have facilities for viewing remains. If the NOK desires a viewing before interment, the remains must be consigned to a local funeral director.

SCHEDULING

Unless extraordinary circumstances exist with respect to the condition of remains, interment in national cemeteries will not be made on Saturdays, Sundays, or holidays.

NAVAL PLOTS AND CEMETERIES

LEARNING OBJECTIVE: *Recall policy for interment at a naval cemetery.*

With two exceptions, MEDDEN Affairs exercises technical direction of naval plots and cemeteries. Presently, there are only a few active naval cemeteries, so plot availability is extremely limited. For this reason, decedents who are eligible for interment in national cemeteries will not normally be authorized interment in a naval plot or cemetery. However, exceptional or unusual circumstances will be referred to BUMED for determination.

GROUP INTERMENTS

LEARNING OBJECTIVE: *Recall guidelines for group interments.*

When remains of two or more individuals killed in the same incident cannot be individually identified, a priority message detailing the circumstances should be sent to MEDDEN Affairs. MEDDEN Affairs will then determine if there is a need for an identification specialist to be sent. If remains cannot be individually identified, the collective remains will be interred as a group interment. Group interments should be made in a national cemetery, within the 50 United States, as close to the midpoint of the two most widely separated homes of record of known deceased individuals involved, or as otherwise directed by the program managers. MEDDEN Affairs will coordinate with the other services as required. Procedures followed in group interments are:

1. Unidentified remains should be prepared, wrapped and placed into the minimum number of caskets possible without overcrowding. Partially segregated but identifiable remains should be wrapped separately.
2. One or more escorts should be provided, as long as the number of escorts does not exceed the number of deceased persons.
3. The PNOK and two blood relatives of each deceased member in a group interment are authorized round-trip transportation to the place of interment at government expense.
4. The ceremonies should be conducted with full military honors and be in accordance with the religious preferences applicable to all denominations represented within the group. Photographs should be provided to the PNOK, if desired.
5. The headstone or headstones should be inscribed with the names of all known deceased personnel.

SUMMARY

The Decedent Affairs Program consists of the search, recovery, identification, care, and disposition of remains of deceased personnel for whom the Department of the Navy is responsible. Large medical treatment facilities normally manage decedent affairs mattes. However, when a death occurs at small independent operational units, senior Hospital Corpsmen will be responsible for the proper management of this program. For this reason, basic components of the Decedent Affairs Program were covered in this chapter. For further guidance, you should consult the *Decedent Affairs Manual* or contact the Naval office of Medical/Dental Affairs, Mortuary Affairs Section, Great Lakes, Illinois.

APPENDIX I

HISTORY OF THE HOSPITAL CORPS UNITED STATES NAVY

ORIGIN AND DEVELOPMENT OF THE CORPS

Few military organizations can look upon their histories with the same degree of pride and awe as the Navy Hospital Corps. Since the establishment of the Navy medical department in Colonial times and the commissioning of the Hospital Corps a century ago, Hospital Corpsmen and their forerunners have proven themselves ready to support Marines and Sailors by giving them aid whenever and wherever necessary. This level of dedication has remained a strong current running through the Corps' history, even as the tools and techniques used by its members have evolved.

REVOLUTIONARY WAR

The first direction given to the organization of Navy medicine consisted of only one article in the *Rules for the Regulation of the Navy of the United Colonies of North America* of 1775. Article 16 stated:

> A convenient place shall be set apart for sick or hurt men, to be removed with their hammocks and bedding when the surgeon shall advise the same to be necessary: and some of the crew shall be appointed to attend to and serve them and to keep the place clean. The cooper shall make buckets with covers and cradles if necessary for their use.

Interestingly, the cooper (or barrel-maker), whose skills could be used to make bedpans, had a more detailed job description than did any kind of trained medical assistant.

A typical medical section was usually limited to two, perhaps three men: the surgeon, the surgeon's mate, and possibly an enlisted man. The surgeon was a physician. The surgeon's mate, usually a doctor as well, held status like that of a modern warrant officer but signed on only for a particular cruise. Although surgeons' mates were historically viewed as part of the Medical Corps, their position and responsibilities appear to be more equivalent to those of today's senior Hospital Corpsmen.

Few things changed in medical techniques and organization between 1775 and 1814, the period covering America's first naval wars. Among the less dramatic responsibilities of caring for the noncombat ill and injured were feeding and personal care of the sick. The simple daily ration of porridge, or "loblolly," was sure to be carried down to those in the medical space by untrained attendants.

SURGEON'S MATES AND LOBLOLLY BOYS

Congress approved an act on March 2, 1799, which copied the words of the Continental Congress' medical department Article 16 of 1775 exactly. As a result, there was still no title or job description for enlisted medical personnel. The nickname "loblolly boy" was in common use for so many years that it became the official title in Navy Regulations of 1814. The loblolly boy's job, described in the Regulations of 1818, included the following:

> The surgeon shall be allowed a faithful attendant to issue, under his direction, all supplies and provisions and hospital stores, and to attend the preparation of nourishment for the sick. . . . The surgeon's mates shall be particularly careful in directing the loblolly boy to keep the cockpit clean, and every article therein belonging to the Medical Department. . . . The surgeon shall prescribe for casual cases on the gun deck every morning at 9 o'clock, due notice having been previously given by his loblolly boy by ringing of a bell.

SURGEON'S STEWARDS AND LOBLOLLY BOYS

A new senior enlisted medical rate, surgeon's steward, was introduced in the ensuing decades. The term is first seen in 1841 in Navy pay charts, but it appears that the new billet was only allowed on larger ships. By April 1, 1843, the Navy Department issued an order allowing surgeon's stewards to be assigned to brigs and schooners. The relative importance of

medical Sailors was hereby increased. Surgeon's stewards ranked second in seniority among the ship's petty officers, next only after the master-at-arms.

SURGEON'S STEWARDS AND NURSES

The year 1861 brought civil war to this country, and—due to the enormous expansion of the Navy because of the war—changes and developments in the medical department ensued. On June 19, 1861, a Navy Department circular order established a new name for the loblolly boy.

> In addition to a surgeon's steward, 1 nurse would be allowed for ships with a complement of less than 200; 2 nurses would be allowed for ships with a complement of more than 200; and sufficient nurses would be allowed on receiving ships in a number proportionate to the necessities of the vessel.

While the shipboard medical department changed the titles of its personnel, new techniques in mass care of the sick and wounded were also developed. A captured sidewheel steamer was repaired and modified to care for patients. Refinements to the ship included bathrooms, kitchens, and laundries—even elevators and the facilities to carry 300 tons of ice. On December 26, 1862, the USS *Red Rover* became the first Navy vessel specifically commissioned as a hospital ship. The medical complement included 30 surgeons and male nurses, as well as four nuns.

APOTHECARIES AND BAYMEN

Postwar reductions in the size of the Navy brought new classifications to enlisted medical personnel. The title "surgeon's steward" was abolished in favor of three grades of apothecaries in 1866. Those selected as apothecaries had to be graduates of a course in pharmacy or possess the same knowledge gained through practical experience. The Apothecary, First Class, ranked with a warrant officer, while the second and third classes were petty-officer equivalents. The three rates were reduced to one petty officer apothecary on March 15, 1869.

"Nurse," as a title for junior enlisted medical personnel, was replaced by the title "bayman" (defined as one who manned the sick bay) in the early 1870s. U.S. Navy Regulations of 1876 used the title officially, and it remained valid for 22 more years.

An apothecary of the 1890s mixed and dispensed all medication aboard a ship. He was responsible for all medical department reports, supply requests, and correspondence, and he helped maintain medical department records. The apothecary administered anesthesia during surgery and was the primary instructor for new baymen.

The apothecaries' responsibilities did not end there, however. (See figure APP-I-1.) During shipboard surgery, the bayman focused an electric light on the incision site while the surgeon did his work on what served as a combination of both writing and operating table. He sterilized surgical instruments by boiling them, then stored them in a solution of 5 percent phenol. Bandages and dressings were sterilized by baking them in a coffee can in the ship's oven. Sick bay itself was prepared for surgery by wiping the entire room down with a chlorine solution. On days when the ship's routine called for scrubbing bags and hammocks, a bayman was responsible for washing those of the sick. When required, he painted the ship's medical spaces.

During the last two decades of the 1800s, many in the naval medical establishment called for reforms in the enlisted components of the medical department. Medicine had by now progressed far more as a science, and civilian hospitals all had teaching schools for their nurses. Foreign navies had trained medical Sailors, and the U.S. Army had established its own Hospital Corps of enlisted men on March 1, 1887. Navy Surgeon General J. R. Tryon argued, in his annual report of 1893, against the practice of assigning landsmen to the medical department with nothing more than on-the-job-training. He advocated the urgent need for an organized hospital corps.

Physicians in the fleet were equally certain of the need for changes. Surgeon C. A. Sigfried of the USS *Massachusetts* made his views known in his report to the Surgeon General in 1897.

> The importance of improving the medical department of our naval service is more and more apparent, in view of the recent advances in the methods and rapidity of killing and wounding. The great want is a body of trained bay men or nurses, and these should be better paid and of better stamp and fiber. Now and then we procure a good man, and proceed with his training as a bay man. He soon finds opportunity for betterment in some one of the various departments of the ship, in the matter of pay and emolument, either in some yeoman's billet or in some place where his meager $18 per month can be suddenly

Figure APP-I-1.—An apothecary (petty officer first class) treats a shipmate aboard the USS *Boston* in 1888.

increased to $30, $40, or even $60 per month. The bay man, who should be an intelligent, sober man, and well trained in many things pertaining to nursing, dieting, ambulance, and aids to wounded, and have a moderate amount of education, finds his pay at present among the lowest in the ship's company; even the men caring for storerooms get more per month.

HOSPITAL STEWARDS AND HOSPITAL APPRENTICES

Arguments for a professional, well-trained group of individuals to provide medical care for the Navy finally paid off, although it took the imminent danger of combat in the Spanish-American War to spur Congress into action. Within a bill aimed at building the armed forces was a section to provide for the Navy's long-needed Hospital Corps. It was approved by President William McKinley on June 17, 1898. From that date to the present, either generically or by rating title, medical Sailors have been called "Hospital Corpsmen."

To ensure that the members of the new Hospital Corps were adequately trained in the disciplines pertinent to both medicine and the Navy, a basic school for corpsmen was established at the U.S. Naval Hospital Norfolk (Portsmouth), Virginia. Originally called the School of Instruction, it opened September 2, 1902. Its curriculum included anatomy and physiology, bandaging, nursing, first aid, pharmacy, clerical work, and military drill. The first class of 28 corpsmen was graduated on December 15, 1902. (See figure APP-I-2.)

The school continued for a brief time and was then moved to the Naval Hospital in Washington, D.C., remaining in existence there until 1911. For the next 3 years, there was no basic school for corpsmen, but the concept was revived in 1914. The next two Hospital Corps Training Schools were opened in Newport, Rhode Island, and on Yerba Buena Island, California.

Figure APP-I-2.—A hospital steward (chief petty officer) and two hospital apprentices from a ship's landing party medical section, 1905.

HOSPITAL APPRENTICES AND PHARMACIST'S MATES

The next revision in the structure of the Hospital Corps came by act of Congress on August 29, 1916. Under this plan, the rates were hospital apprentices, second class and first class (both of whom wore a red cross on the sleeve); pharmacist's mates, third, second, and first; and chief pharmacist's mate. The officer contingent of the Hospital Corps included the two warrant officer ranks of pharmacist and chief pharmacist. The reorganization allowed for a massive, fivefold increase in the size of the Hospital Corps.

At the start of 1917, the Hospital Corps counted 1,700 men in its ranks. A concerted effort to recruit and train new personnel enabled the corps to reach its authorized strength of 3 1/2 percent of the Navy and Marine Corps, or 6,000 men. But as these plans came to fruition, the United States entered World War I in April. By the end of 1918, the corps peaked at about 17,000.

PHARMACIST'S MATES IN WORLD WAR I

The massive wartime expansion in Hospital Corps strength necessitated additional schools to train the newcomers. Hospital Corps School, Great Lakes, Illinois, had been established in January 1913. Wartime schools were created in Minneapolis at the University of Minnesota, in New York at Columbia University, and at the Philadelphia College of Pharmacy. A school for Naval Reserve Force Hospital Corpsmen was set up at Boston City Hospital. Other crash-course schools for shipboard personnel were conducted at a number of other civilian hospitals. Hospital Corpsmen who were needed to serve as medical department representatives on small vessels such as destroyers were trained at the Pharmacist's Mate School at Hampton Roads, Virginia, the

forerunner of the Independent Duty Hospital Corpsman School.

Hospital Corpsmen were assigned to the multitude of duty types and locations needed to support a Navy involved in a world war. Naval hospitals were opened and staffed. Ships and aircraft squadrons were given medical support. At sea, the dangers of the new war were ever present.

Naval training facilities and shore establishments needed Hospital Corpsmen, as did occupation forces in Haiti and other bases around the world. But World War I provided the Hospital Corps a role that would afford it some of the most dangerous challenges it would ever face: duty with the Marine Corps.

Assignment to Marine Corps units was not completely new. Hospital Corpsmen were serving with Marine occupational forces in Cuba, Haiti, and Santo Domingo at the outbreak of the war, and they had seen other similar service. It was the change of the Marine Corps' role to one of expeditionary forces in a large-scale ground war that changed what Hospital Corpsmen would do. Sick call and preventive medicine were continuous roles that remained unchanged. Facing artillery, mustard gas, and machine gunfire were new experiences.

A heritage of valorous service with the Marines was born, as evidenced by two Hospital Corpsmen receiving the Medal of Honor. Other decorations to Hospital Corpsmen included 55 Navy Crosses, 31 Army Distinguished Service Crosses, 2 Navy Distinguished Service Medals, and 237 Silver Stars. A hundred foreign personal decorations were granted to Navy Hospital Corpsmen, and 202 earned the right to wear the French Fourragère shoulder aiguillette permanently. Their 684 personal awards make the Hospital Corps, by one account, the most decorated American unit of World War I.

PHARMACIST'S MATES IN WORLD WAR II

World War II became the period of Hospital Corps' greatest manpower, diversity of duty, and instance of sacrifice. Between 1941 and 1945, the ranks of this small organization swelled from its prewar levels of near 4,000 to more than 132,000 personnel. This increase came to fulfill new responsibilities with new technologies at new duty stations. In the face of great adversity, the Hospital Corps would cement its reputation for effectiveness and bravery.

The Navy's fleet expanded to thousands of ships, and the Marine Corps grew from a few regiments to six divisions. A two-ocean war produced horrific numbers of casualties, and the Hospital Corps grew to meet the needs of casualty collection, treatment, and convalescence. To educate the influx of new Sailors, Hospital Corps Training School at Portsmouth, Virginia, was augmented by a temporary school at Naval Hospital Brooklyn, New York. The school at Great Lakes was recreated in 1942, and others were started at Farragut, Idaho, and at Bainbridge, Maryland, in 1943. A separate Hospital Corps Training School was established for women (fig. APP-I-3) at Bethesda, Maryland, in January 1944. Specialized schools were opened to train pharmacist's mates for independent duty and for service with the Marines. Additionally, courses were established to instruct personnel on new equipment and techniques in dozens of developing medical fields.

Shore-based duty sent Hospital Corps personnel to hospitals and dispensaries in the United States and abroad. Advance-base hospitals on newly captured Pacific islands formed a crucial link in the chain of evacuation from battle sites. Those facilities in Hawaii or England received casualties from their respective fronts, and wounded service personnel recuperated in Stateside hospitals. Hospital Corpsmen made the treatment of American casualties possible at each of these by providing technical support and direct patient care.

Duty on surface ships afforded Hospital Corpsmen numerous challenges and abundant environments in which to face them. Hospital ships required the services of personnel in much the same way as shore-based hospitals, except that those on ship were afloat and subject to attack. Other classes of vessels, such as landing ships and patrol craft (LSTs and PCERs), became large floating clinics/ambulances which required additional Hospital Corps personnel. Additionally, combatant ships and transports in the Atlantic, Pacific, and Mediterranean theaters took casualties from ships, aircraft, and submarines throughout the war, necessitating the service of well-trained Hospital Corpsmen.

Approximately 300 Hospital Corpsmen sat out all but the early days of the war when they were captured in the Philippines by the invading Japanese. In prisoner-of-war camps and huddled in POW "hell ships," they endured malnutrition, disease, torture, and brutality. One hundred thirty-two Hospital Corpsmen died as prisoners during World War II, a death rate almost 20 percent higher than among other American POWs.

Figure APP-I-3.—Women entered the Hospital Corps in World War II as WAVES.

Hospital Corpsmen served on the beaches not only in the island campaigns of the Pacific, but in Europe as well. Teams of Navy medical personnel formed aid stations with beach battalions at Sicily and Normandy, treating Army and allied wounded under fire. Hospital Corpsmen ensured the survival of these casualties until they could reach hospitals in England.

Of all the Hospital Corpsmen in World War II, Fleet Marine Force personnel endured, perhaps, the most grueling side of war. As they swarmed numerous beaches in the Pacific, they became targets themselves as they braved fire to reach downed comrades. At Guadalcanal, Tarawa, Peleliu, Saipan, Tinian, Kwajalein, Iwo Jima, and Okinawa, Hospital Corpsmen bled and died, often in greater numbers than the Marines for whom they cared. Hospital Corps casualties in the 4th Marine Division at Iwo Jima, for example, were 38 percent.

Members of the Hospital Corps treated some 150,000 combat casualties during the war. This number does not include thousands of others—those plagued by disease and injured in the line of duty—who were aided by their medical shipmates. The cost of this service was high: 1,170 Hospital Corpsmen were killed in action and thousands more were wounded. But their valor was rewarded. Hospital Corpsmen earned 7 Medals of Honor (almost half of those awarded to Sailors in the war), 66 Navy Crosses, 465 Silver Star Medals, and 982 Bronze Star Medals.

A NEW HOSPITAL CORPS

Massive reorganization of the armed forces took place after World War II. A new Department of Defense was established, and the Army-Navy Medical Service Corps Act removed commissioned allied health and medical administration officers from the Hospital Corps. This law also provided for a separate Dental Technician rating, which remained a component of the Hospital Corps until 1972. Women in the Hospital Corps had previously been WAVES, a

component of the U.S. Naval Reserve, but the new legislation permitted women to enlist in the Regular Navy.

Effective April 1, 1948, the Navy changed the names and insignia of the Hospital Corps. The new rating titles were hospital recruit, hospital apprentice, hospitalman, hospital corpsmen third, second, and first class, and chief hospital corpsman. The red Geneva cross (fig. APP-I-4), which had marked corpsmen for 50 years, was replaced in the rating badge with the original symbol of the winged caduceus. The rates of senior chief and master chief hospital corpsman were added in 1958.

HOSPITAL CORPSMEN IN KOREA

As part of a United Nations force, Marines were committed to the Korean peninsula when South Korea was invaded by its northern neighbor in the summer of 1950. Within the first year, Hospital Corpsmen had participated in the dramatic landing at Inchon and the frigid retreat from the Chosin Reservoir. Although only one Marine division was involved in the war between 1950 and 1953, the Hospital Corps lost 108 killed in action. Disproportionate to their numbers was their heroism. In Korea, Hospital Corpsmen earned 281 Bronze Star Medals, 113 Silver Star Medals, and 23 Navy Crosses. All five enlisted Navy Medals of Honor were awarded to Navy Hospital Corpsmen serving with the Marines.

HOSPITAL CORPSMEN IN VIETNAM

American military commitment in Southeast Asia grew in the decades following World War II. As early as 1959, a few Hospital Corpsmen provided medical support for U.S. military personnel as part of the American Dispensary at the U.S. Embassy. Four years later, in 1963, Navy Station Hospital, Saigon, was created. Ninety Hospital Corpsmen staffed the facility, and provided care for U.S. and allied (Australian, New Zealand, Filipino, and South Korean) military, as well as South Vietnamese civilians. These medical personnel conducted routine medical care and treated the victims of combat and terrorist actions until the hospital was transferred to the Army in 1966.

Hospital Corpsmen were assigned aboard ships of various kinds, providing offshore medical support to U.S. forces. The largest commitment here was on the hospital ships USS *Repose* and USS *Sanctuary*. Some 200 Hospital Corpsmen, representing the gamut of technical specialties, worked on each ship. Teams of 20 Hospital Corpsmen served on LPH-class amphibious ships. Others supported the riverine force on APB-class base ships.

U.S. State Department initiatives and the Medical Civic Action Program (MEDCAP) provided medical support for Vietnamese civilians. Beyond routine aid and treatment, the Hospital Corpsmen working through these programs provided guidance in sanitation and preventive medicine throughout South Vietnam.

By far the Hospital Corps' largest contribution in Vietnam was with Marine Corps units. Starting with the 50 who landed with the Marines at Da Nang in 1965, the enlisted medical component would grow to 2,700 Hospital Corpsmen assigned to 1st and 3d Marine Divisions, 1st Marine Air Wing, and other combat support units. Two medical battalions and two hospital companies operated field hospitals, collecting and clearing units, and dispensaries that treated the flow of combat casualties from the field. Closer support was provided at the battalion aid station (BAS) level, where casualties could be stabilized before evacuation to more definitive care. The BAS was often bypassed because of the exceptional medical evacuation capabilities of helicopter medical evacuation (MEDEVAC).

The most dangerous role of the Hospital Corpsman in Vietnam was in the field. Special units (such as Navy SEAL teams and Marine reconnaissance units) took medical Sailors with them, as did the artillery, air, and infantry elements of the Marine Corps. Most of the 53 Hospital Corpsmen assigned to an infantry battalion served with rifle companies, one or two men per platoon of about 40. These Sailors patrolled with their Marines, risked the same dangers, and rendered the aid that saved the lives of thousands.

HOSPITAL CORPSMEN SINCE VIETNAM

Since April 1975, Hospital Corpsmen have continued to serve in the many "hot spots" around the world. Fifteen Hospital Corpsmen were killed in action when the Marine headquarters in Beirut, Lebanon, was attacked and destroyed by a suicide truck bomber on October 23, 1983. Hospital Corpsmen were present at sea and ashore when the United States took military action in Grenada, and then again when they faced both bullets and the needs of a starving populace in Somalia.

The 1990-91 Iraqi invasion of Kuwait gained a strong response from the United States and the world in the form of Desert Shield/Desert Storm. Preparations

were made to drive the Iraqi Army out of the tiny country, and corpsmen were readied to respond to the needs of their shipmates. Hospital Corpsmen around the globe reacted, as their ships, stations, and Marines deployed or prepared to receive casualties. In fact, the first Navy casualty of Desert Storm was a Hospital Corpsman. Of the vast number of Naval Reservists called to active duty, the largest single group activated consisted of Hospital Corpsmen. Of an inventory of just more than 12,000 Hospital Corpsmen in the Naval Reserve, some 6,700 were recalled to active duty. The largest group of them, about 4,600, served at medical treatment facilities and casualty receiving centers; approximately 1,100 went to Marine Corps units; about 840 were attached to Fleet Hospitals Six and Fifteen; and some 470 of the reservists were assigned to the hospital ships *Mercy* and the *Comfort*.

HOSPITAL CORPSMEN TODAY

Today's Hospital Corpsmen perform as assistants in the prevention and treatment of disease and injury. They assist with physical examinations, provide patient care, and administer medicinals. They perform general laboratory, pharmacy, and other patient support services. They assist in the administrative, supply, and accounting procedures within medical departments ashore, afloat, and with the Marine Corps. They instruct medical and nonmedical personnel in first aid, self-aid, personal hygiene, and medical records maintenance. They assist in the maintenance of environmental health standards, and they are prepared to assist in the prevention and treatment of CBR casualties and in the transportation of the sick and injured. Senior Hospital Corpsmen perform technical planning and management functions in support of medical readiness and quality health care delivery.

In addition to their general assignments, Hospital Corpsmen trained as technicians perform specialized functions within the operational forces, clinical specialties, and administrative department, and they may be assigned duties independent of a medical officer. These complex duties require that each Hospital Corpsman have broad-based training and a versatility neither demanded nor expected of other enlisted rating in the Navy.

Wherever you find the Navy, wherever you find the Marine Corps, there you will find Navy Hospital Corpsmen. In times of peace, they toil unceasingly, day and night, providing quality care to numerous beneficiaries. In times of war, they are on the beaches with the Marines, employed in amphibious operations, in transportation of wounded by air, on the battlefield, and on all types of ships, submarines, aircraft carriers, and landing craft. Their innumerable instances of heroism, during which they have consciously exposed themselves to danger to save lives, are not spectacular because the corpsmen were required to act. Rather, their bravery is exceptional because it was not required, but given freely and willingly in service to their country and their fellow humanity, above and beyond the call of duty.

Abridged from "The U.S. Navy Hospital Corps: A Century of Tradition, Valor, and Sacrifice," by HMCS(FMF) Mark T. Hacala, USNR, with permission from the author.

APPENDIX II

COMMONLY USED ABBREVIATIONS

AA . . . . . Alcoholics Anonymous
ACTH . . . . . adrenocorticotropichormon
ADH . . . . . antidiuretic hormone
AIDS . . . . . acquired immunodeficiency syndrome
B-cells. . . . . lymphocytes produced in the bone marrow
Ba . . . . . barium
Bid . . . . . 2 times a day
BP . . . . . blood pressure
BUMED . . . . . Bureau of Medicine and Surgery
BUN . . blood, urea, nitrogen (test of kidney function)
BW. . . . . biological warfare
C . . . . . Celsius (centigrade)
Ca . . . . . calcium
CAAC. . . . . Counseling and Assistance Center
CBC . . . . . complete blood count
CBR . . . . . chemical, biological, and radiological (warfare)
cc . . . . . cubic centimeter/1 ml
CCU . . . . . coronary care unit
CHF . . . . . congestive heart failure
Cl . . . . . chlorine
CNS . . . . . central nervous system
CO_2 . . . . . carbon dioxide
COPD . . . . . chronic obstructive pulmonary disease
CSF . . . . . cerebrospinal fluid
CVA. . . . . cerebrovascular accident
CW . . . . . chemical warfare
D&C . . . . . dilation and curettage
DC. . . . . Dental Corps
DCA. . . . . damage control assistant
diff . . . . . differential blood count
DME . . . . . diving medical examination
DNA . . . . . deoxyribonucleic acid
DOB . . . . . date of birth
DOD . . . . . Department of Defense
DTs. . . . . delerium tremens (confusion and incoherence brought on by withdrawal from alcohol)
D_x . . . . . diagnosis
ea . . . . . each
ECG/EKG . . . . . electrocardiogram
EM . . . . . electron microscope
ENT . . . . . ear, nose, and throat
F . . . . . Fahrenheit
FAC . . . . . free available chlorine
FBS . . . . . fasting blood sugar
FDA. . . . . Food and Drug Administration
Fe . . . . . iron
FSC . . . . . *Federal Supply Catalog*
FSH. . . . . follicle-stimulating hormone
g/gm . . . . . gram
GI . . . . . gastrointestinal
gr . . . . . grain
gtt . . . . . drops
GTT. . . . . glucose tolerance test
GU . . . . . genitourinary
h.s. . . . . at bedtime (*hora somni*)
Hb/Hgb . . . . . hemoglobin
HCG . . . . . human chorionic gonadotropin
Hct . . . . . hematocrit
Hg . . . . . mercury
HIV . . . . . human immunodeficiency virus
hpf . . . . . high-power field (microscope)
I . . . . . iodine
I&O . . . . . intake and output
ICU . . . . . Intensive care unit
IM . . . . . intramuscular
IPPB . . . . . intermittent positive-pressure breathing (asthma and emphysema therapy)
IUD . . . . . intrauterine device
IV . . . . . intravenous

IVP . . . . . intravenous pyelogram
JAG . . . . . Judge Advocate General
K . . . . . potassium
KUB . . . . . kidney, ureter, and bladder (abdominal x-ray)
l *or* L . . . . . liter
Lab . . . . . laboratory
LES . . . . . Leave and Earnings Statement
LH . . . . . luteinizing hormone
LLQ . . . . . left lower quadrant
LMP . . . . . last menstrual period
LP . . . . . lumbar puncture
LUQ . . . . . left upper quadrant
m . . . . . meter
MANMED . . . . *Manual of the Medical Department*
MC . . . . . Medical Corps
MCH . . . . . mean corpuscular hemoglobin
MCHC . . . . . mean corpuscular hemoglobin concentration
MCV . . . . . mean corpuscular volume
Med Board . . . . . Department of Defense Medical Review Board
mg . . . . . milligram
MI . . . . . myocardial infarction
MILPERSMAN . . . . . *Naval Military Personnel Manual*
ml . . . . . milliliter
mm . . . . . millimeter
MO . . . . . medical officer
MSC . . . . . Medical Service Corps
N . . . . . nitrogen
Na . . . . . sodium
NAVEDTRA . . . . . Naval Education and Training
NAVFINCEN . . . . . Naval Finance Center
NAVMEDCOM . . . . . Naval Medical Command
NC . . . . . Nurse Corps
NDRC . . . . . Naval Drug Rehabilitation Center
NEC . . . . . Naval Enlisted Classification
ng . . . . . nasogastric
NMPC . . . . . Naval Military Personnel Command
npo . . . . . nothing by mouth (*nulli per os*)
NRTC . . . . . nonresident training course
O_2 . . . . . oxygen
OB . . . . . obstetrics
OBA . . . . . oxygen breathing apparatus
OD . . . . . right eye (*oculus dexter*)
OJT . . . . . on-the-job training
OR . . . . . operating room
OS . . . . . left eye (*oculus sinister*)
oz . . . . . ounce
P . . . . . phosphorus
PAYPERSMAN . . . *Pay and Personnel Procedures Manual*
pc . . . . . after meals (*post cibum*)
PDB . . . . . paradichlorobenzene
PDR . . . . . *Physicians' Desk Reference*
PH . . . . . hydrogen ion concentration (alkalinity and acidity measurement)
PID . . . . . pelvic inflammatory disease
po . . . . . orally (*per os*)
poly . . . . . segmented neutrophil (seg)
post-op . . . . . post-operative
ppd . . . . . purified protein derivative
ppm . . . . . parts per million
pre-op . . . . . pre-operative
prn . . . . . as required (*pro re nata*)
PSD . . . . . Personnel Support Detachment
PVC . . . . . premature ventricular contraction
q4h . . . . . every 4 hours
q6h . . . . . every 6 hours
qd . . . . . every day
qh . . . . . every hour
qid . . . . . 4 times a day
qns . . . . . quantity not sufficient
qt . . . . . quart
Ra . . . . . radium
RBC . . . . . red blood cell
Rh . . Rh factor (antigen in blood of some individuals)
RLQ . . . . . right lower quadrant
RUQ . . . . . right upper quadrant
R_x . . . . . take (prescription)
sc/sub-q . . . . . subcutaneous
SOAP notes . . . . . the only accepted method of medical record entries for the military. (**S**ubjective; **O**bjective; **A**ssessment; **P**lan)

SOB . . . . . shortness of breath
stat . . . . . immediately
STD . . . . . sexually transmitted disease
T-cells. . . . . lymphocytes produced in the thymus gland
TAD/TEMADD . . . . . temporary additional duty
TB . . . . . tuberculosis
tbsp . . . . . tablespoon
tid . . . . . 3 times a day
tpr. . . . . temperature, pulse, and respiration
TSH . . . . . thyroid-stimulating hormone
tsp . . . . . teaspoon
UIC . . . . . unit identification code
URI . . . . . upper respiratory infection
USP-NF . . . . United States Pharmacopeia-National Formulary
VA . . . . . Veterans Administration
VD . . . . . venereal disease
VDRL. . . . . Venereal Disease Research Laboratory (an antibody test for syphilis)
vs . . . . . vital signs
WBC . . . . . white blood cell
WHO . . . . . World Health Organization
YOB . . . . . year of birth

APPENDIX III

PREFIXES AND SUFFIXES USED IN MEDICAL TERMINOLOGY

Medical terminology uses components (i.e., prefixes and suffixes) to build words that represent medical conditions and procedures. These words can often seem intimidating until you learn how to break them down into their component parts.

Examples of Combinations of Prefixes and Suffixes

cholecystitis = chole + cyst + itis (inflammation of the gallbladder)

- chole = gall
- cyst = bladder
- Itis = inflammation

cholelithiasis = chole + lith + iasis (condition resulting from gallstones)

- chole = gall
- lith = stone
- iasis = condition (resulting from)

odontalgia = odont + algia (tooth pain; toothache)

- odont = tooth
- algia = pain

rhinoplasty = rhino + plasty (to form or build up the nose)

- rhino = nose
- plasty = to form or build up

The following are some of the more common prefixes and suffixes used by healthcare providers to describe body conditions and procedures.

PREFIXES

a-; an- . . . . . lacking; absence of
ab- . . . . . away from
acr/o . . . . . extremities
ad- . . . . . towards; addition of
adip/o . . . . . fat
aer/o . . . . . air
amphi- . . . . . on both sides
amyl/o . . . . . starch
andr/o . . . . . male

angi/o . . . . . vessel
ankyl/o . . . . . crooked; bent; stiff
ante- . . . . . before
anter/o; anteri/o . . . . . front
anti- . . . . . against
aque/o . . . . . water
arthr/o . . . . . joint
articul/o. . . . . joint
atel/o. . . . . incomplete
audi/o . . . . . hearing
aur/i . . . . . ear
auto- . . . . . self
axill/o. . . . . armpit
bacteri/o. . . . . bacteria
bene- . . . . . good
bi/o. . . . . life
bi- . . . . . two
bil/i . . . . . gall; bile
brachi/o . . . . . arm
brady- . . . . . slow
bucc/o . . . . . cheek
calc/o . . . . . calcium
capit/o . . . . . head
carcin/o. . . . . cancer
cardi/o . . . . . heart
cata- . . . . . down
caud/o . . . . . tail; lower part of body
caus/o. . . . . burn
cauter/o . . . . . heat; burn
celi/o . . . . . belly; abdomen
cephal/o . . . . . head
cerebell/o . . . . . cerebellum
cerebr/o. . . . . brain; cerebrum
cervic/o. . . . . neck; cervix
chem/o. . . . . drug; chemical
chol/e . . . . . gall
chondr/o . . . . . cartilage
chrom/o . . . . . color
chron/o . . . . . time
cib/o. . . . . meals
con- . . . . . with; together
contra- . . . . . against; opposed to
coron/o. . . . . heart
cortic/o . . . . . cortex
cost/o . . . . . ribs
crani/o . . . . . skull
cry/o . . . . . cold
crypt/o . . . . . hidden
cutane/o. . . . . skin
cyan/o. . . . . blue
cyst/o . . . . . bladder
cyt/o . . . . . cell
dacry/o . . . . . tear
dactyl/o. . . . . fingers; toes
de- . . . . . lack of
dent/i. . . . . tooth
derm/o; dermat/o . . . . . skin
di. . . . . complete
dia- . . . . . complete; through
diaphor/o . . . . . sweat
dist/o . . . . . far
dors/o . . . . . back (of body)
dys- . . . . . difficult; painful
ec-; ecto- . . . . . out; outside
em- . . . . . in
en- . . . . . in; within
encephal/o . . . . . brain
endo- . . . . . within
enter/o. . . . . intestines
epi- . . . . . above
erg/o . . . . . work
erythr/o. . . . . red
eso-. . . . . inward
estr/o . . . . . female
eti/o . . . . . cause
eu- . . . . . good
ex- . . . . . out
exo- . . . . . outside
fibr/o. . . . . fibers; fibrous tissue
gastr/o . . . . . stomach
gen/o . . . . . producing; beginning
germ/o . . . . . sprout; seed
gingiv/o . . . . . gums
gloss/o . . . . . tongue
gluc/o; glyc/o . . . . . sugar
gnos/o . . . . . knowledge

gravid/o . . . . . pregnancy
gynec/o . . . . . woman; female
hem/o; hemat/o . . . . . blood
hemi- . . . . . half
hepat/o . . . . . liver
hidr/o . . . . . sweat
hist/o; histi/o . . . . . tissue
home/o . . . . . same; constant; unchanged
hydr/o . . . . . water
hyper- . . . . . above; increase
hypn/o . . . . . sleep
hypo- . . . . . under; below
hyster/o . . . . . uterus; womb
immun/o . . . . . safe; protection
in- . . . . . not; in
infra- . . . . . below; inferior
inter- . . . . . between
intra- . . . . . within
is/o . . . . . same; equal
kary/o . . . . . nucleus
kerat/o . . . . . horny; hard; cornea
kinesi/o . . . . . movement
labi/o . . . . . lips
lacrim/o . . . . . tear; tear duct
lact/o . . . . . milk
lapar/o . . . . . abdomen
laryng/o . . . . . larynx; voice box
later/o . . . . . side
leuk/o . . . . . white
lingu/o . . . . . tongue
lip/o . . . . . fat
lumb/o . . . . . lower back; loins
macro- . . . . . large
mal- . . . . . faulty; poor
mamm/o . . . . . breast
mast/o . . . . . breast
medi/o . . . . . middle
melan/o . . . . . black
meso- . . . . . middle
meta- . . . . . beyond; near; change
metr/o; metri/o . . . . . uterus
micr/o . . . . . small
mit/o . . . . . thread
mon/o . . . . . one; single
morph/o . . . . . shape; form
mort/o . . . . . death
my/o . . . . . muscle
myel/o . . . . . spinal cord; bone marrow
myos/o . . . . . muscle
narc/o . . . . . stupor; numbness
nas/o . . . . . nose
nat/i . . . . . birth
necr/o . . . . . death
neo- . . . . . new
nephr/o . . . . . kidney
neur/o . . . . . nerve
ocul/o; ophthalm/o . . . . . eye
odont/o . . . . . tooth
olig/o . . . . . few; scanty
onc/o . . . . . mass; tumor
or/o . . . . . mouth
orth/o . . . . . straight
oste/o . . . . . bone
ot/o . . . . . ear
ov/o . . . . . egg
pachy/o . . . . . heavy; thick
pan- . . . . . all
para- . . . . . beside; near; abnormal
path/o . . . . . disease
per- . . . . . through
peri- . . . . . around
phag/o . . . . . eat; swallow
pharyng/o . . . . . throat
phil/o . . . . . like; love; attraction to
phleb/o . . . . . vein
phob/o . . . . . fear
phot/o . . . . . light
physi/o . . . . . nature
pne/o . . . . . breathing; breath
pneum/o . . . . . lung
poly- . . . . . many; much
post- . . . . . after; behind
pre- . . . . . before
proct/o . . . . . rectum
prot/o . . . . . first
proxim/o . . . . . near

pseud/o . . . . . false
psych/o . . . . . mind
py/o . . . . . pus
pyr/o . . . . . heat; temperature
re- . . . . . back
rect/o . . . . . rectum
ren/o . . . . . kidney
retro- . . . . . behind
rhin/o . . . . . nose
rib/o . . . . . sugar
roentgen/o . . . . . x-rays
sarc/o . . . . . flesh (connective tissue)
scop/o . . . . . examination (usually visual)
semi- . . . . . half
seps/o . . . . . infection
somn/o . . . . . sleep
son/o . . . . . sound
spher/o . . . . . round; globe-shaped
sphygm/o . . . . . pulse
spondyl/o . . . . . vertebrae (backbones)
stomat/o . . . . . mouth
sub- . . . . . under; below
supra- . . . . . above
sym-; syn- . . . . . together; with
tachy- . . . . . fast
tele/o . . . . . far; distant
thorac/o . . . . . chest
top/o . . . . . position; location; place
tox/o; toxic/o . . . . . poison
trans- . . . . . across
ultra- . . . . . beyond; excess
vas/o . . . . . vessel; duct
ven/o . . . . . vein
ventr/o . . . . . belly side of body
vir/o . . . . . virus; poison
viscer/o . . . . . internal organs
vit/a; vit/o . . . . . life
xanth/o . . . . . yellow
xer/o . . . . . dry

SUFFIXES

-ac; -al; -ar; -ary . . . . . pertaining to
-algia . . . . . pain
-ase . . . . . enzyme
-asthenia . . . . . lack of strength
-blast . . . . . immature; embryonic
-capnia . . . . . carbon dioxide
-cele . . . . . tumor; hernia
-cidal . . . . . killing
-clast . . . . . break
-coccus (*pl.* -cocci) . . . . . berry-shaped
-crine . . . . . secrete; separate
-crit . . . . . separate
-cyte . . . . . cell
-cytosis . . . . . condition of cells
-desis . . . . . binding
-ectasia; -ectasis . . . . . dilation; stretching
-ectomy . . . . . removal of
-emesis . . . . . vomiting
-emia . . . . . blood
-er . . . . . one who
-esthesia . . . . . sensation
-genesis . . . . . condition of producing
-globin; -globulin . . . . . protein
-gram . . . . . record
-graph . . . . . instrument for recording
-graphy . . . . . process of recording
-ia . . . . . condition; process
-iasis . . . . . condition (of)
-ic . . . . . pertaining to
-ist . . . . . specialist
-itis . . . . . inflammation
-lith . . . . . stone; calculus
-lysis . . . . . destruction; break down
-lytic . . . . . destruction
-malacia . . . . . softening
-manometer . . . . . used to measure pressure
-megaly . . . . . enlargement
-meter . . . . . used to measure
-oid . . . . . resembling
-ole . . . . . little; small
-ology . . . . . study of
-oma . . . . . growth; tumor
-opia . . . . . vision
-opsy . . . . . view
-or . . . . . one who

-(o)rraphy . . . . . repair of
-(o)rrhea . . . . . flow; discharge
-osis . . . . . condition (of)
-(o)stomy . . . . . creation of an opening
-(o)tomy . . . . . cutting into
-ous . . . . . pertaining to
-para . . . . . births (viable offspring)
-pathy . . . . . disease
-penia . . . . . decreased number
-phagia . . . . . eating; swallowing
-pheresis . . . . . removal
-philia . . . . . attraction for; increase
-phobia . . . . . fear; dread
-phonia . . . . . voice; sound
-phoria . . . . . feeling (mental state)
-phylaxis . . . . . protection
-physis . . . . . grow; growth
-plasia . . . . . formation; growth
-plasty . . . . . form; build up
-plegia . . . . . paralysis
-pnea . . . . . breathing
-porosis . . . . . passage
-ptosis . . . . . drooping; falling
-rrhea . . . . . discharge; flow
-sclerosis . . . . . hardening
-scope . . . . . instrument used to examine
-scopy . . . . . examination (usually visual)
-spasm . . . . . contraction of muscles
-stalsis . . . . . constriction
-stasis . . . . . control; stop
-static . . . . . stopping; controlling
-stenosis . . . . . tightening; stricture
-sthenia . . . . . strength
-therapy . . . . . treatment
-thermy . . . . . heat
-tic . . . . . pertaining to
-tome . . . . . instrument to cut
-tomy . . . . . process of cutting; incision
-tresia . . . . . opening
-tropic; -trophy . . . . . growth; nutrition
-ule . . . . . little; small
-uric; -uria . . . . . urine
-y . . . . . condition; process

APPENDIX IV

COMMON PHARMACEUTICALS

	Pharmaceutical Name	Action & Use
Astringents	Aluminum acetate solution (Burrow's solution, Domeboro®)	Aluminum acetate solution is used as a wet dressing for the relief of inflammatory conditions of the skin, such as poison ivy, swellings and bruises, insect bites, athlete's foot, or other environmental skin conditions, and for superficial external otitis.
	Calamine, zinc oxide, glycerine, and bentonite magma in calcium hydroxide (calamine lotion)	Calamine lotion is used to treat various skin afflictions in the same way as aluminum acetate. It is a topical astringent and protectant. It should not be applied to blistered, raw, or oozing areas of the skin.
Emollients	Theobroma oil (cocoa butter)	Cocoa butter is an excellent emollient with a pleasant odor. It is ideal for the treatment of chapped skin and lips, cracked nipples, or minor irritated or abraded skin areas.
	Petrolatum (petroleum jelly)	Petrolatum is a good emollient that also provides a highly occlusive, protective barrier. When petrolatum is used as an ointment base, it may not release some drugs.
	Zinc oxide ointment	Zinc oxide ointment is a white petrolatum containing approximately 20% zinc oxide powder. It is used as an emollient with slightly astringent properties. Because of its opaqueness, zinc oxide ointment is ideal for protecting sensitive skin from the sun.
Expectorants & Antitussives	Guaifenesin and dextromethorphan (Robitussin DM®)	In this drug combination, guaifenesin acts as an expectorant. It may be useful in the symptomatic relief of dry, nonproductive coughs, and in the presence of mucous in the respiratory tract. Dextromethorphan is a synthetic nonnarcotic derivative of codeine that acts as an antitussive. It is used to control nonproductive coughs by soothing minor throat and bronchial irritations.
	Guaifenesin and codeine phosphate (Robitussin AC®)	Guaifenesin and codeine phosphate are combined to relieve the symptoms of a cold. Guaifenesin is an expectorant, and codeine phosphate is a narcotic antitussive. Patients should be advised that this medication contains a narcotic and, if abused, could cause dependency.

HM3fAiva

	Pharmaceutical Name	Action & Use
Nasal Decongestants	Pseudoephedrine hydrochloride (Sudafed®)	Pseudoephedrine hydrochloride (HCl) is indicated for the symptomatic relief of nasal congestion due to the common cold, hay fever, or other upper respiratory allergies.
	Pseudoephedrine hydrochloride and triprolidine hydrochloride (Actifed®)	Pseudoephedrine HCl and triprolidine HCl are a nasal decongestant and antihistamine combination. Pseudoephedrine HCl, a nasal decongestant, reduces congestion and swelling of mucous membranes, and triprolidine HCl, an antihistamine, promotes drying of mucous membranes. This drug combination is indicated for the symptomatic relief of colds, hay fever, etc.
	Phenylpropanolamine and guaifenesin (Entex®LA)	Phenylpropanolamine, a nasal decongestant, and guaifenesin, an expectorant, are combined for the symptomatic relief of nasal congestion due to the common cold, hay fever, or other respiratory allergies.
Antihistamines	Diphenhydramine hydrochloride (Benadryl®)	Diphenhydramine hydrochloride is given for active and prophylactic treatment of motion sickness, as a nighttime sleep aid, and for the symptomatic relief of urticaria, allergic rhinitis, and other allergic conditions.
	Chlorpheniramine maleate (Chlor-Trimeton®)	Chlorpheniramine maleate is used for the symptomatic treatment of urticaria and other allergic conditions.
	Meclizine hydrochloride (Antivert®, Bonine®)	Meclizine HCl is given to prevent and treat nausea, vomiting, and dizziness of motion sickness. Meclizine HCl has a longer duration of action than diphenhydramine hydrochloride.
	Dimenhydrinate (Dramamine®)	Similar to other antihistamines, the greatest usefulness of dimenhydrinate is the prevention and treatment of motion sickness. It may also be used to control nausea and vomiting in connection with radiation sickness.
Histamine H_2 Receptor Antagonists	Cimetidine (Tagamet®)	Cimetidine is used for short-term treatment and maintenance of active duodenal and benign gastric ulcers. Cimetidine may also be used for other medical conditions which cause an excess amount of gastric acid to be produced.
	Ranitidine (Zantac®)	Like cimetidine, ranitidine is used for short-term treatment and maintenance of active duodenal and benign gastric ulcers to promote healing of duodenal ulcers. In addition, ranitidine is used to treat gastroesophageal reflux disease.

HM3fAivb

	Pharmaceutical Name	Action & Use
Antacids	Magnesium hydroxide (Milk of Magnesia USP)	Milk of magnesia is used for the symptomatic relief of upset stomach associated with hyperacidity, treatment and maintenance of duodenal ulcers, and may be used to reduce phosphate absorption in patients with chronic renal failure. Magnesium hydroxide should be taken on an empty stomach with lots of fluids. It should not be used in the presence of abdominal pain, nausea, or vomiting. Prolonged use may result in kidney stones. Magnesium hydroxide also has a laxative effect.
	Aluminum hydroxide gel (Amphojel®)	Aluminum hydroxide gel is used to manage peptic ulcers, gastritis, and gastric hyperacidity. The major advantage of this drug is that no systemic alkalosis is produced. It may, however, cause constipation.
	Alumina and magnesia oral suspension (Maalox®)	Alumina and magnesia oral suspension coats the stomach lining and neutralizes gastric acid. It is less constipating than aluminum hydroxide alone.
	Alumina, magnesia, and simethicone oral suspension (Mylanta®)	Alumina, magnesia, and simethicone oral suspension coats the stomach lining, neutralizes gastric acid, and reduces flatulence.
Antiseptics, Disinfectants, & Germicides	Phenol (carbolic acid)	Historically one of the first antiseptic agents used, phenol is the standard by which all other antiseptic, disinfectant, and germicidal agents are measured in their effectiveness. Because of its highly caustic nature, phenol must be handled with care. The effect of phenol is coincident with the concentration: high concentrations are germicidal and can cause tissue destruction; lower concentrations are antiseptic. Phenol is inactivated by alcohol. Because more effective and less damaging agents have been developed, phenol is no longer used extensively. **NOTE:** Never use phenol to disinfect rubber, cloth, or plastic.
	Povidone-iodine (Betadine®)	Numerous iodine and iodine-complex agents are available for use in disinfection. The most common of these is povidone-iodine (Betadine®). It is used externally to destroy bacteria, fungi, viruses, protozoa, and yeasts. Povidone-iodine is relatively nontoxic, nonirritating, and nonsensitizing to the skin. When used as an antiseptic, the complex breaks down on contact with skin or mucous membranes to release free iodine, which is slowly absorbed. It is most commonly used as a preoperative skin antiseptic. **NOTE:** Check for iodine allergies before using this antiseptic on patients.

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	Pharmaceutical Name	Action & Use
Antiseptics, Disinfectants, & Germicides (cont.)	Isopropyl alcohol (Isopropanol)	Isopropyl alcohol is used in a 70% solution as a skin antiseptic; it is volatile and also has a drying effect on the skin.
	Hexachlorophene (pHisoHex®)	Hexachlorophene, a synthetic preparation is a bacteriostatic cleansing agent effective against gram-positive organisms. Pus or serum decrease its effectiveness. Hexachlorophene is a neurotoxic agent and must not be used on premature infants, denuded skin, burns, or mucous membranes. It is used as an antiseptic scrub by physicians, dentists, food handlers, and others. Residual amounts can be removed with alcohol.
	Glutaraldehyde (Cidex®)	Glutaraldehyde is effective against vegetative gram-positive, gram-negative, and acid-fast bacteria, bacterial spores, some fungi, and viruses. It is used in an aqueous solution for sterilization of fiber optics, plastics, rubber, and other materials that are not resistant to heat.
	Hydrogen peroxide	Hydrogen peroxide, a germicide, is routinely used to cleans pus-producing wounds and in the treatment of necrotizing ulcerative gingivitis (NUG) (also known as trench mouth). Hydrogen peroxide is an oxidizing agent that is destructive to certain pathogenic organisms, but it is mild enough to be used on living tissue. It is for external use only and is normally available in a 3% solution.
	Silver nitrate	The soluble salts of silver nitrate ionize in water to produce highly concentrated astringent and antiseptic solutions. Silver nitrate in **solid** form is most commonly used to cauterize mucous membranes and to treat aphthous ulcers. The most common side effect of silver nitrate is that the skin turns black where the silver nitrate comes in contact with it. This black area on the skin is not harmful but will resolve slowly. Silver nitrate in **liquid** form is used as eye drops to prevent gonorrheal ophthalmia in newborns. Liquid silver nitrate is also used as a wet dressing. **CAUTION!** When you use silver nitrate as a wet dressing, you should use precautions to keep the dressing from drying out. If the wet dressing dries out, the silver nitrate will precipitate and be absorbed into the skin, which will turn a slate gray. This condition is known as **argyria**. There is no known reversal for this condition.

HM3fAivd

	Pharmaceutical Name	Action & Use
Sulfonamides	Sulfisoxazole (Gantrisin®)	This systemic sulfonamide is bacteriostatic and is indicated to treat urinary tract infections and acute otitis media.
	Trimethoprim and sufamethoxazole (Bactrim®, Septra®)	The combination of trimethoprim and sufamethoxazole is an anti-infective used to treat urinary tract infections and otitis media.
	Sulfacetamide sodium (Sodium Sulamyd®, Bleph-10®)	Sulfacetamide sodium is an ophthalmic bacteriostatic for the treatment of conjunctivitis, corneal ulcer, and other superficial ocular infections. It is available in solutions of various strengths and in an ointment form.
	Silver sulfadiazine (Silvadene Cream®)	Silver sulfadiazine is a topical antimicrobial agent used to treat second- and third-degree burns to prevent wound sepsis. It is water soluble and easily washed off the skin.
Penicillins	Penicillin G, aqueous	Penicillin G, aqueous, is indicated for susceptible infections such as meningococcal meningitis, endocarditis, and gonorrhea. Penicillin G is for parenteral use only.
	Penicillin G benazathine (Botulin®)	Penicillin G benazathine is indicated for conditions such as syphilis and upper respiratory tract infections caused by streptococcal (group A) bacteria.
	Penicillin G procaine, aqueous (Wycillin®)	Penicillin G procaine, aqueous, is indicated for conditions such as uncomplicated pneumonia, middle ear and sinus infections, NUG and pharyngitis, and acute pelvic inflammatory disease (PID). Penicillin G procaine is for parenteral use only, and it has a longer duration of action than most of the other penicillins.
	Penicillin V potassium (Pen-Vee K®, Betapen-VK®, V-Cillin K®)	Penicillin V is used to treat conditions such as upper respiratory tract infection, otitis media, sinusitis, bacterial endocarditis, and mild staphylococcal infection of skin and soft tissue. Penicillin V has the same spectra of activity of penicillin G and is usually the drug of choice for uncomplicated group-A beta-hemolytic streptococcal infections. It is available as oral tablets or powder for reconstitution for oral suspension.
	Dicloxacillin sodium (Dynapen®)	Dicloxacillin sodium is used to treat infections caused by penicillin G-resistant staphylococci. It may be used to initiate therapy in any patient in whom a staphylococcal infection is suspected.
	Ampicillin (Polycillin®)	Ampicillin is used to treat conditions such as shigella, salmonella, escherichia coli, and gonorrhea.
	Amoxicillin (Amoxil®)	The spectrum of amoxicillin is essentially identical to ampicillin, except that amoxicillin is more effective against shigella. Amoxicillin also has the advantage of more complete absorption than ampicillin.

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	Pharmaceutical Name	Action & Use
Cephalosporins	Cefazolin sodium (Ancef®, Kefzol®)	Cefazolin is used to treat a wide range of medical conditions, such as lower respiratory tract infections (pneumonia and lung abscess), septicemia, and bone and joint infections. Cefazolin sodium is also used perioperatively to reduce the chance of certain infections following surgical procedures (such as vaginal hysterectomy, gastrointestinal (GI) surgery, and transurethral prostatectomy).
	Cephalexin (Keflex®)	Cephalexin is indicated for the treatment of infection of the respiratory tract, otitis media, skin and skin structures, and genitourinary system.
	Cefuroxine (Ceftin®, Zinacef®)	Cefuroxine is used to treat pharyngitis, tonsillitis, otitis media, bronchitis, and mixed infections of the skin and skin structure. Mixed infections are infections that include both aerobic and anaerobic pathogenic organisms. This medication is also used preoperatively to prevent the incidence of certain postoperative infections.
Tetracyclines	Tetracycline hydrochloride (Achromycin®, Sumycin®)	Tetracycline hydrochloride (TCN) is used to treat infections caused by rickettsiae (such as Rocky Mountain spotted fever and typhus fever), agents of lymphogranulomas venereum and granuloma inguinale, and the spirochetal agent of relapsing fever. Tetracycline hydrochloride is indicated for severe acne as an adjunctive therapy. Food and some dairy products may interfere with absorption; antacids containing aluminum, calcium, or magnesium impair absorption of the antibiotic as well. This medication should be given 1 hour before or 2 hours after meals.
	Doxycycline hyclate (Vibramycin®)	Doxycycline is active against a wide range of gram-positive and gram-negative microorganisms and has a low affinity for binding with calcium. In addition to the conditions listed under tetracycline, doxycycline is also indicated for the treatment of uncomplicated chlamydial infections and uncomplicated gonococcal infections.
	Minocycline hydrochloride (Minocin®)	Mincycline hydrochloride is indicated for the same conditions as tetracycline hydrochloride and doxycycline hyclate.

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	Pharmaceutical Name	Action & Use
Aminoglycosides	Streptomycin sulfate	Streptomycin sulfate is indicated for all forms of *mycobacterium tuberculosis*; it should be used only in conjunction with other antituberculosis drugs, e.g., Rifampin® or isoniazid. Streptomycin sulfate is also used to treat plague, tularemia, chancroid, granuloma inguinale, and some urinary tract infections where the infectious agent has shown to be susceptible to streptomycin and not susceptible to less toxic preparations.
	Gentamicin sulfate (Garamycin®)	Gentamicin sulfate is used to treat serious systemic infections of susceptible gram-negative organisms. While the patient is on gentamicin sulfate, it is necessary to monitor renal and hepatic function to determine if toxic levels have been reached. Gentamicin sulfate is also available as a topical preparation for the treatment of burns and infected wounds, and as an ophthalmic preparation for eye infections.
	Tobramycin sulfate (Nebcin®)	Tobramycin sulfate is used to treat serious infections such as septicemia, meningitis, and peritonitis.
	Neomycin sulfate (Mycifradin Sulfate®)	Neomycin sulfate is used to a topical preparation to treat skin infections, burn wounds, ulcers, and dermatoses. Neomycin sulfate is given orally to reduce intestinal flora prior to surgery involving the bowel or anus.
Macrolides	Erythromycin (E-Mycin®, Ilotycin®, PCE Dispertab®, Eryc®)	Erythromycin is one of the drugs of choice when penicillin is contraindicated. This medication is indicated to treat medical conditions such as gonorrhea; uncomplicated urethral, endocervical, and anal infections; early syphilis; and cases of severe or prolonged diarrhea associated with campylobater enteritis and enterocolitis. Erythromycin is also prescribed, as a prophylactic agent, prior to colorectal surgery. Erythromycin is available in enteric-coated tablets, as an opthalmic ointment, and as a topic preparation for the adjunctive treatment of acne.
	Clindamycin hydrochlorids (Cleocin®)	Clindamycin hydrochloride is used to treat susceptible anaerobic organisms. The use of clindamycin hydrochloride has often been associated with severe colitis and profuse diarrhea; if this condition occurs, the drug should be discontinued. A topical preparation is available for the treatment of acne.
	Vancomycin hydrochloride (Vancocin®)	Vancomycin hydrochloride is indicated in potentially life-threatening infections not treatable with other effective, less toxic antimicrobials, including the penicillins and cephalosporins. Potentially life-threatening infections that vancomycin may be used for include endocarditis, osteomyelitis, pneumonia, and septicemia.

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	Pharmaceutical Name	Action & Use
Macrolides (cont.)	Spectinomycin (Trobicin®)	Spectinomycin was developed to treat gonorrhea. It is largely bacteriostatic and very effective in treating uncomplicated gonorrhea. Its advantage lies primarily in being a single-dose therapy and for patients who are allergic to penicillin or have penicillin-resistant strains of the causative organism. It is NOT effective in treating syphilis.
Antifungals	Nystatin (Mycostatin®)	Nystatin is primarily used to treat candidal infections. It is fungicidal and fungistatic against a wide variety of yeasts and yeast-like fungi, and is most often used to treat candidiasis. It is sometimes used concurrently with tetracycline to suppress the overgrowth of *Candida* in the bowel.
	Griseofulvin (Gris-PEG®, Fulvicin®)	Griseofulvin is a fungistatic agent given orally to treat fungal infections of the nails, hair, and skin. It is generally reserved for chronic infections that have not responded to topical therapy alone. Because treatment may last for several months, the patient should be instructed to follow the treatment regimen even though symptoms may abate. Inclusion of topical therapy is a must for effective elimination of the infection. Griseofulvin is not indicated to treat superficial fungal infections that can be controlled by topical antifungals. Because of its toxicity, patients should have periodic evaluations of hepatic and renal function. Griseofulvin is contraindicated in patients with hepatic dysfunction.
	Miconazole nitrate (Monistat®, Micatin®)	Miconazole nitrate is a synthetic antifungal that inhibits the growth of common dermatophytes. It is indicated to treat cutaneous fungal infections and vulvovaginal candidiasis.
	Undecylenic acid (Desenex®)	Undeclyenic acid is used primarily to treat and prevent tinea pedis and is often compounded with zinc to act as an astringent. It is available in ointment, dusting powder, solution, and spray.
	Tolnaftate (Tinactin®, Aftate®)	Tolnaftate was the first fungicide synthesized. It is indicated for the topical treatment of tinea pedis, tinea corporis, tinea capitis, and tinea versicolor.
	Clotrimazole (Lotrimin®, Mycelex®)	This is a broad-spectrum antifungal that inhibits the growth of pathogenic dermatophytes, yeasts, and other types of fungus growth, including *Candida albicans*. It is indicated for the treatment of tinea pedis, tinea cruris, tinea corporis, and candidiasis.

HM3fAivh

	Pharmaceutical Name	Action & Use
Antiparasitics	Permethrin (Elimite®)	Permethrin is a pediculicide used to treat *Pediculosis capitis* (head lice) and *Phthirus pubis* (crab lice). It is also indicated for scabies. Use with caution, especially in infants, children, and pregnant women, since it penetrates human skin and has the potential for systemic poisoning. This drug is irritating to the eyes and should be discontinued immediately if local irritation occurs.
	Crotomiton (Eurax®)	Crotamiton is a scabicide indicated for the treatment of scabies (*Sarcoptes scabiei*); it also has an antipruritic effect. Keep away from the eyes and mouth; do not apply to inflamed skin.
	Metronidazole (Flagyl®)	Metronidazole is effective in treating amebiasis. It is also used as a trichomonacide.
	Chloroquine phosphate (Aralen®)	Chloroquine phosphate is the drug of choice in treating acute malarial attacks. It is also used in the prevention and suppression of malaria in endemic areas.
	Primaquine phosphate	Primaquine phosphate is the drug of choice for the prevention or relapse of malaria caused by *P. vivax* and *P. ovale*. Primaquine phosphate is contraindicated in G-6-PD-deficient personnel, as it may result in hemolytic anemia.
	Sulfadoxine and pyrimethamine (Fansidar®)	Sulfadoxine and pyrimethamine is used in the curative treatment of strains of malaria that are resistant to chloroquine phosphate. It is also used prophylactically in endemic areas.
	Mebendazole (Vermox®)	Mebendazole is effective in treating infestations of hookworm, roundworm, pinworm, and whipworm.
	Pyrantel pamoate (Antiminth®)	Pyrantel pamoate is regarded as the drug of choice for pinworm and roundworm infestations.
	Thiabendazole (Mintezol®)	Thiabendazole is a vermicide used to destroy pinworms, roundworms, threadworms, hookworms, and whipworms. It is not indicated as a prophylactic agent.
Laxatives	Mineral oil	Mineral oil is an emollient laxative used to lubricate the fecal mass. It is often used in combination with an irritant agent such as phenolphthalein (Ex-Lax®).
	Glycerin suppositories (Sani-Supp®)	Glycerin suppositories are widely used in children. They promote peristalsis through local irritation of the mucous membrane of the colon.
	Bisacodyl (Ducolax®)	Bisacodyl is a relatively nontoxic irritant cathartic that reflexively stimulates the colon on contact. It usually produces softly formed stools in 6 to 12 hours and is normally taken at bedtime. It is often used as a preparatory agent prior to some surgeries and radiological examinations.

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	Pharmaceutical Name	Action & Use
Laxatives (cont.)	Magnesium citrate (Citrate of magnesia)	Magnesium citrate is a saline irritant laxative that also inhibits the absorption of water from the intestine. It is preferred by radiology departments for use prior to special x-rays.
	Psyllium hydrophilic mucilloid (Metamucil®)	Psyllium hydrophilic mucilloid is a bulk laxative that works by absorbing water. The effect occurs within 12 to 72 hours. It is provided as a dry powder that is stirred into water or fruit juice. This laxative should be drunk immediately after mixing, while the material is in suspension.
	Ducosate calcium (Surfak®)	Ducosate calcium is a stool softener that promotes water retention in the fecal mass.
	Ducosate sodium (Colace®)	Ducosate sodium has the same action as ducosate calcium.
Antidiarrheals	Kaolin mixture with pectin (Kaopectate®)	Kaolin mixture with pectin is used in the symptomatic treatment of diarrhea. The pectin portion absorbs excess fluid and consolidates the stool. The kaolin portion absorbs irritants and forms a protective coating on the intestinal mucosa.
	Diphenoxylate hydrochloride with atropine sulfate (Lomotil®)	Diphenoxylate hydrochloride with atropine sulfate is used for the symptomatic treatment of diarrhea. This medication reduces peristalsis and intestinal motility by affecting the smooth muscles in the intestine. Because diphenoxylate is chemically related to meperidine hydrochloride (Demerol®), it is classified as a controlled substance. To prevent abuse of the drug, a sub-therapeutic amount of atropine is added.
Diuretics	Hydrochlorothiazide (Esidrix®, Oretic®, HydroDIURIL®)	Hydrochlorothiazide is used for edema associated with congestive heart failure and other edematous conditions. It is also used to manage hypertension as the sole agent or in combination with other antihypertensive agents.
	Chlorthalidone (Hygroton®)	Chlorthalidone is used in the same manner as hydrochlorothiazide.
	Furosemide (Lasix®)	Furosemide, a potent diuretic, is used to treat edema associated with congestive heart failure, cirrhosis of the liver, and renal disease. It is particularly useful when greater diuretic potential is desired, and may be used alone or in combination with other antihypertensive agents to treat hypertension.
	Acetazolamide (Diamox®)	Although classified as a diuretic, the primary indication for this drug is the treatment of glaucoma (to reduce intraocular pressure).

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	Pharmaceutical Name	Action & Use
Diuretics (cont.)	Triamterene and hydrochlorothiazide (Dyazide®, Maxzide®)	This combination of a potassium-sparing (triamterene) and potassium-depleting diuretic is often more effective than either drug alone. It is used for edema associated with congestive heart failure and other edematous conditions. It is also used in the management of hypertension.
Nonnarcotic Analgesics, Antipyretics, and Anti-inflammatory Agents	Aspirin (ASA, CAMA, Ecotrin®)	Aspirin is still the most economical analgesic, antipyretic, and anti-inflammatory agent available. Some preparations have an antacid-type buffer to assist in the reduction of gastric irritation. It is an analgesic for mild to moderate pain and an effective antipyretic. Aspirin is also indicated for various inflammatory conditions, such as rheumatoid arthritis and bursitis.
	Acetaminophen (Tylenol®)	Acetaminophen, an analgesic and antipyretic, is used to relieve pain and fever accompanying diseases (such as the common cold and influenza). It is also used to relieve pain and discomfort of upper GI disease (ulcer and gastritis), gouty arthritis, a variety of arthritic and rheumatic conditions involving musculoskeletal pain, as well as other painful disorders. Acetaminophen is indicated for patients who are allergic to aspirin.
	Ibuprofen (Motrin®)	Ibuprofen is indicated for the relief of mild to moderate pain, including headaches and menstrual cramps. It is also used as an anti-inflammatory agent to treat arthritis, tendinitis, bursitis, etc. It is not recommended for use in cases of gastrointestinal bleeding or renal impairment, or during the third trimester of pregnancy.
	Indomethacin (Indocin®)	Indomethacin is a potent anti-inflammatory agent with antipyretic and analgesic properties. Because of its potential for adverse reactions, indomethacin should be reserved for cases of chronic rheumatoid arthritis, osteoarthritis, and acute gout.
	Naproxen sodium (Anaprox®)	Naproxen sodium, an analgesic, is indicated for the relief of mild to moderate pain and for the treatment of primary dysmenorrhea, rheumatoid arthritis, osteoarthritis, tendinitis, bursitis, and acute gout. Its effects are similar to those of aspirin and indomethacin, but with fewer and less toxic gastrointestinal side effects; however, it is not indicated for patients with a history of gastrointestinal disease, especially those with a propensity for peptic ulcer disease.
	Tolmetin sodium (Tolectin®)	Tolmetin sodium, an anti-inflammatory agent, is used for treatment and long-term management of acute rheumatoid arthritis and osteoarthritis. It is also used to treat juvenile rheumatoid arthritis.
	Piroxicam (Feldene®)	Piroxicam, an anti-inflammatory agent, is used to relieve the signs and symptoms of acute and chronic osteoarthritis and rheumatoid arthritis.

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	Pharmaceutical Name	Action & Use
Central Nervous System Stimulants	Methylphenidate hydrochloride (Ritalin®)	Methylphenidate HCl is indicated for use in hyperkinetic children and children with attention deficit disorders. In children, this drug as a central nervous system depressant. Methylphenidate HCl is also indicated for narcolepsy in adults.
	Dextroamphetamine sulfate (Dexadrine®)	Dextroamphetamine is primarily indicated for narcolepsy. However, because of dextroamphetamine's anorexiant effect (it diminishes the appetite), it is occasionally used as an adjunct to diet therapy for obesity caused by overeating.
Central Nervous System Depressants	Phenobarbital (Luminal®)	Phenobarbital is a long-lasting barbiturate frequently used to treat convulsive seizure disorders. This is the drug of choice in petit mal epilepsy, and it is also used as a hypnotic or sedative.
	Pentobarbital (Nembutal®)	Pentobarbital is indicated for short-term treatment of insomnia. It is also used as a preanesthetic medication.
	Secobarbital (Seconal®)	Secobarbital is used in the same manner as pentobarbital and has a rapid hypnotic effect.
	Phenytoin sodium (Dilantin®)	Phenytoin sodium, a nonbarbiturate anticonvulsant, is the drug of choice for the treatment and management of grand mal epilepsy. Because phenytoin sodium possesses no hypnotic properties, it is preferred to phenobarbital in treating seizure disorders. However, phenytoin sodium and phenobarbital are frequently used in combination to more effectively manage certain types of epilepsies.
	Ethyl alcohol (ethanol)	Ethyl alcohol, a controlled substance, is mainly used in compounding various medicinal preparations not normally stocked by pharmacy. In small doses, alcohol stimulates the gastric mucosa, increasing the flow of juices. Continual small doses produce hypnotic effects. Systemically, ethyl alcohol is a sedative.
Opium & Opium Alkaloids	Camphorated opium tincture (Paregoric)	Camphorated opium tincture is used mainly as an intestinal tranquilizer to control diarrhea.
	Morphine sulfate	Morphine sulfate, an opium alkaloid, is indicated for the relief of severe pain. It is used preoperatively to sedate patients and to treat severe pain associated with myocardial infarction. Morphine is contraindicated for patients with head injuries, acute alcoholism, and convulsive disorders.

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	Pharmaceutical Name	Action & Use
Opium & Opium Alkaloids (cont.)	Codeine sulfate	Codeine sulfate, an opium alkaloid, is like morphine. However, it has only one-sixth of the analgesic power and one-fourth of the respiratory depressant effect of morphine. Codeine is used for moderate to severe pain and as an antitussive.
	Meperidine hydrochloride (Demerol®)	Meperidine hydrochloride is a synthetic analgesic similar to morphine. It is used for moderate to severe pain and as a preoperative medication. Meperidine HCl is not as effective as morphine in its analgesic properties.
Psychotherapeutic Agents	Chlorpromazine hydrochloride (Thorazine®)	Chlorpromazine hydrochloride is indicated for alleviating manifestations of psychosis, tension, and agitation. Dosage is highly individualized depending on the severity of symptoms and degree of response. Chlorpromazine HCl may also be used as an antiemetic.
	Thioridazine (Mellaril®)	Thioridazine is used for antipsychotic purposes and is considered to be a good all-around tranquilizer.
	Prochlorperizine (Compazine®)	Prochlorperizine is most often used in the symptomatic treatment of nausea and vomiting, but it shares all the antipsychotic effects of chlorpromazine.
	Haloperidol (Haldol®)	Haloperidol is indicated in treating schizophrenia with manifestations of acute manic symptoms, social withdrawal, paranoid behavior, and the manic stage of manic-depressive patients.
	Lithium (Eskalith®, Lithonate®)	Lithium is used to treat manic episodes of manic-depressive illness. It is the drug of choice to prevent or diminish the intensity of manic episodes.
	Amitriptyline hydrochloride (Elavil®)	Amitriptyline HCl is an antidepressive mood elevator with mild tranquilizing effects. It is indicated for the long-term treatment of depressive disorders.
	Chlordiazepoxide hydrochloride (Librium®)	Chlordiazepoxide hydrochloride is an antianxiety agent for the treatment of anxiety disorders. It is **not** indicated for the anxiety or tension associated with the stress of everyday activities. Chlordiazepoxide HCl is also indicated in the abatement of acute withdrawal symptoms of alcoholism.
	Hydroxyzine pamoate (Vistaril®, Atarax®)	Hydroxyzine pamoate is a rapid-acting antianxiety and antiemetic with antispasmodic and muscle relaxant effects. It is most often used in pre- and postoperative sedation and in conjunction with meperidine hydrochloride to enhance its effects and reduce nausea.

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	Pharmaceutical Name	Action & Use
Psychotherapeutic Agents (cont.)	Diazepam (Valium®)	Diazepam is useful in treating mild to moderate depression with anxiety and tension. Because of its muscle relaxant properties, it is also used to treat spastic muscle conditions and convulsive seizure episodes. Diazepam is the drug of choice in status epilepticus.
	Fluoxetine hydrochloride (Prozac®)	Fluoxetine is an oral antidepressant used to treat depression. It may also be useful in treating bulimia nervosa and obsessive-compulsive disorders.
	Temazepam (Restoril®)	Temazepam is a nonbarbiturate sedative and hypnotic indicated for the treatment of insomnia.
Skeletal Muscle Relaxants	Methocarbamol (Robaxin®)	Methocarbamol is used as an adjunct therapy for the relief of discomfort associated with acute, painful musculoskeletal conditions. It may have a beneficial effect in the control of neuromuscular manifestations of tetanus.
	Cyclobenzaprine hydrochloride (Flexeril®)	Cyclobenzaprine hydrochloride is indicated as an adjunct to rest and physical therapy for relief of muscle spasm with acute painful musculoskeletal conditions.
	Chlorzoxazone (Parafon Forte DSC®)	Chlorzoxazone is used in the same manner as cyclobenzaprine HCl.
	Orphenadrine citrate, aspirin, and caffeine (Norgesic®)	This drug combination contains a skeletal muscle relaxant (orphenadrine citrate), an analgesic and anti-inflammatory agent (aspirin), and a CNS stimulant (caffeine). It is used as an adjunct to rest and physical therapy for relief of muscle spasm with acute painful muskuloskeletal conditions.
Cardiovascular Agents	Digoxin (Lanoxin®)	Digoxin is indicated for all degrees of congestive heart failure and for various arrhythmias. It has a direct effect on the myocardium, causing an increase in the force of contractions.
	Quinidine sulfate	Quinidine sulfate is indicated for premature atrial and ventricular contractions and other arrhythmias. **NOTE:** Do not confuse this medication with quinine sulfate, an antimalarial.
	Amyl nitrite	Amyl nitrite is primarily used for the prevention of erection in adult males following circumcision. Occasionally, this drug is used for cardiac patients.
	Nitrogylcerin (Nitrostat®, Nitro-Bid®)	Nitroglycerin is indicated for the treatment and management of acute and chronic angina pectoris.

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	Pharmaceutical Name	Action & Use
Cardiovascular Agents (cont.)	Isosorbide dinitrate (Isordil®, Sorbitrate®)	Isosorbide dinitrate is similar to nitroglycerin in its antianginal action.
	Dipyridamole (Persantine®)	Dipyridamole is indicated as an adjunct to warfarin sodium (an anticoagulant) in the prevention of postoperative thromboembolic complications of cardiac valve replacement.
	Procainamide hydrochloride (Pronestyl®, Procan SR®)	Procainamide HCl is indicated for the treatment of premature ventricular contractions, ventricular tachycardia, and atrial fibrillation. It may also be used for cardiac arrhythmias associated with anesthesia and surgery.
	Verapamil (Isoptin®)	Verapamil is indicated for the treatment of angina, essential hypertension (hypertension occurring without an organic cause found), and cardiac arrhythmias.
	Diltiazem (Cardizem®)	Diltiazem is indicated for the treatment of angina pectoris and for the management of essential hypertension.
Vasoconstrictors	Epinephrine (Adrenaline Chloride®, Sus-Phrine®)	When inhaled, epinephrine is used to relieve acute bronchial asthma. When injected, epinephrine relieves respiratory distress in bronchial asthma attacks and relieves bronchospasms in patients with chronic bronchitis, emphysema, and other obstructive pulmonary diseases. It may also be used to treat hypersensitivity reactions to drugs, serums, insect stings, or other allergens. (Symptoms of these reactions may include bronchospasms; urticaria; pruritus; and swelling of the skin, lips, eyelids, tongue, and nasal mucosa; and anaphylactic shock.)
	Tetrahydrozaline hydrochloride (Visine Eye Drops®)	Tetrahydrozaline HCl is an ophthalmic preparation for the symptomatic relief of irritated eyes.
	Phenylephrine hydrochloride (Neo-Synephrine®)	Phenylephrine hydrochloride is used to shrink mucous membranes of the nose and to relieve local congestion.
	Oxymetazoline hydrochloride (Afrin®)	Oxymetazoline HCl is a topical vasoconstrictor used to relieve nasal congestion.
Anticoagulants	Heparin sodium	Heparin sodium is used in prophylaxis and treatment of venous thrombosis (and its expansion) and of pulmonary embolism.
	Warfarin sodium (Coumadin®)	Warfarin sodium is used extensively to treat embolism in the prevention of occlusions.

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	Pharmaceutical Name	Action & Use
Vitamins	Vitamin A (Retinol)	Vitamin A, a fat-soluble vitamin, is necessary for visual adaptation to darkness. Deficiencies rarely occur in well-nourished individuals, and an excess of vitamin A can be toxic. Conditions which may cause vitamin A deficiency include biliary tract or pancreatic disease, colitis, hepatic cirrhosis, and extreme dietary inadequacy (such as anorexia). Retinoic acid, a degradation product of retinol, is useful to treat acne and pseudofolliculitis barbae.
	Vitamin B_1 (Thiamine hydrochloride)	Vitamin B_1, a water-soluble vitamin, is necessary for carbohydrate metabolism. This vitamin is used to treat patients with appetite loss resulting from dietary disturbances. The deficiency disease is beriberi.
	Vitamin B_2 (Riboflavin)	Vitamin B_2, a water-soluble vitamin, functions in the body as a coenzyme necessary in tissue respiratory processes, e.g., oxidation reduction reactions. Deficiency is associated with cheilosis, glossitis, visual disturbances, or visual fatigue.
	Vitamin B_3 (Niacin)	Vitamin B_3, a water-soluble vitamin, is indicated for the correction of a niacin deficiency and in the prevention and treatment of pellagra.
	Vitamin B_6 (Pyridoxine hydrochloride)	Vitamin B_6, a water-soluble vitamin, is a coenzyme in the metabolism of protein, carbohydrate, and fat. It is most often used during isoniazid (INH) therapy to prevent the development of peripheral neuritis.
	Vitamin B_{12} (Cyanocobalamin)	Vitamin B_{12}, a water-soluble vitamin, is essential to growth, cell reproduction, and blood cell formation. When vitamin B_{12} therapy is used to treat pernicious anemia, the treatment is continued indefinitely, and folic acid is normally included in the therapy protocol.
	Vitamin C (Ascorbic acid)	Vitamin C, a water-soluble vitamin, is necessary for the prevention and cure of scurvy. Vitamin C in high doses is believed to prevent the common cold, and to treat asthma, atherosclerosis, wounds, schizophrenia, and cancer.
	Vitamin D	Vitamin D, a fat-soluble vitamin, is involved in the regulation of calcium and phosphorus metabolism. Vitamin D deficiency leads to rickets in children and osteomalacia in adults.
	Vitamin E (Tocopherol)	Vitamin E, a fat-soluble vitamin, is an antioxidant that prevents the destruction of red blood cells by preventing fatty acids in the red blood cells from taking on too much oxygen. It stimulates the production of an enzyme necessary to cell respiration and protects the cell membrane.
	Vitamin K	The naturally occurring form of vitamin K is fat soluble. However, many of the synthetic forms of vitamin K are water soluble. Vitamin K is involved in the formation of prothrombin and other blood clotting factors. Deficiency results in an increase in blood-clotting time.

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	Pharmaceutical Name	Action & Use
General & Local Anesthetics	Nitrous oxide	Nitrous oxide, commonly called laughing gas, is used with oxygen in general anesthesia. Nitrous oxide may produce a condition during which the patient may laugh and become quite talkative. It is commonly used in dentistry or as a preinduction agent to other general anesthesias. **CAUTION!** High concentrations of nitrous oxide may cause cyanosis and asphyxia.
	Halothane (Fluothane®)	Halothane can be used for inhalation anesthesia in most operative procedures with patients of all ages. It is nonflammable and nonexplosive. Halothane is contraindicated in obstetrics or in patients with hepatic dysfunction.
	Ketamine hydrochloride (Ketalar®)	Ketamine hydrochloride is a fast-acting general anesthetic agent used as a preinduction agent or for procedures that do not require skeletal muscle relaxation. One significant effect of this agent is that when the patient begins to recover from the drug, they might experience psychological manifestations ranging from pleasant dream-like states to hallucinations to delirium accompanied by confusion and irrational behavior. The effects of these manifestations may be minimized by keeping aural and tactile stimuli to a minimum. Ketamine HCl is contraindicated for patients with hypertensive disease.
	Fentanyl and droperidol (Innovar®)	Fentanyl and droperidol is a combination of a narcotic (fentanyl) and a tranquilizers (droperidol). Because of the self-potentiating combination, it must be used with extreme caution in patients with any respiratory problems.
	Procaine hydrochloride (Novocain®)	Administered only by injection, procaine hydrochloride may be used for many types of anesthesia, including spinal anesthesia. It is available in various solutions for injection.
	Lidocaine hydrochloride (Xylocaine®)	Lidocaine HCl is the standard to which all other anesthetics are compared. Lidocaine HCl may be combined with epinephrine for vasoconstrictive effects. Lidocaine is also used to treat myocardial infarctions to prevent or suppress preventicular contractions. **CAUTION!** Total dosage injected in 24 hours should not exceed 0.05 g per patient when used with epinephrine.

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	Pharmaceutical Name	Action & Use
General & Local Anesthetics (cont.)	Dibucaine (Nupercainal®)	Dibucaine is used as a topical local anesthetic on mucous membranes and may also be administered parenterally.
	Proparacaine (Ophthetic®, Ophthaine®)	This is a local ophthalmic anesthetic used topically. It is suited for almost every opthalmic procedure. Proparacaine is fairly long lasting.
Oxytocics	Ergonovine maleate (Ergotrate Maleate®)	Ergonovine maleate is used in the prevention and treatment of postpartum and postabortal hemorrhage.
	Oxytocin (Pitocin®)	Oxytocin is indicated for the initiation or improvement of uterine contractions or to control postpartum hemorrhage.

HM3fAivr

APPENDIX V

GLOSSARY

The following terms are explained as used in this manual and as commonly defined.

ABDUCTION—Moving an extremity away from the body.

ABRASION—An area of skin or mucous membrane worn from the body mechanically by some unusual or abnormal process.

ABSCESS—A localized collection of pus.

ACIDOSIS—A condition resulting from acid accumulating in the body.

ADDUCTION—Bringing an extremity toward the body.

ADIPOSE—Of a fatty nature.

ADRENERGIC—Activated by, characteristic of, or secreting epinephrine or similar substance.

ABSORBENT—A drug which "takes up" other substances by absorption.

ADSORPTION—The attachment of one substance to the surface of another.

AEROBIC—Growing only in the presence of oxygen.

AFFECT—*(n.)* Feeling experienced in connection with an emotion.

ALBUMINURIA—Albumin in the urine.

ALIMENTARY—Pertaining to food or digestion.

ALKALOSIS—A pathogenic condition resulting from accumulation of base in, or loss of acid from, the body.

AMBULATORY—Walking or able to walk.

ANABOLISM—The constructive process by which the simple products of digestion are converted by living cells into more complex compounds and living matter for cellular growth and repair.

ANAEROBIC—Growing only in the absence of oxygen.

ANALGESIC—A drug used to relieve pain without producing unconsciousness or impairing mental capacities.

ANATOMY—The science of the structure of the body and the relationship of its parts to each other.

ANEMIA—A decrease in certain elements of the blood, especially red cells and hemoglobin.

ANESTHESIOLOGIST—A physician who specializes in anesthesiology.

ANESTHESIOLOGY—A branch of medicine that studies anesthesia and anesthetics.

ANESTHETIST—A registered nurse trained in administering anesthetics.

ANISOCORIA—Unequal diameter of the pupils.

ANODYNE—A drug that relieves pain.

ANOREXIA—Loss of appetite.

ANTHELMINTIC—A drug that expels, paralyzes, or kills intestinal worms.

ANTIBIOTIC—A synthetic product or a product of living microorganisms that kills or inhibits the growth of undesirable microorganisms.

ANTIDOTE—An agent that counteracts a poison.

ANTIGEN—A substance which, under certain conditions, is capable of inducing the formation of antibodies and reacting specifically with the antibodies in a detectable manner.

ANTIPYRETIC—A drug that lowers elevated body temperature.

ANTISEPTIC—A drug or chemical that inhibits the growth of microorganisms without necessarily destroying them.

APNEA—A temporary cessation of breathing.

ARTICULATION—The place of union or junction between two or more bones of the skeleton.

ASEPTIC—Clean; free of pathogenic organisms.

ASTRINGENT—A drug or preparation that produces shrinkage of body membranes, especially mucous membranes.

ASYMPTOMATIC—Having no symptoms.

AUSCULTATION—The act of listening for sounds within the body, with or without a stethoscope.

AUTOLYSIS—The spontaneous disintegration of tissues or cells by the action of their own serum or enzymes, such as occurs after death and in some pathological conditions.

AVULSED—A forcible separation; also, a part torn from another.

AXILLARY—Pertaining to the area of the armpit.

BACTERICIDE—An agent that destroys bacteria.

BACTERIOSTATIC—An agent that inhibits the growth of bacteria.

BIOLOGICALS—Medicinal preparations made from living organisms and their products, including serums, vaccines, antigens, and antitoxins.

BLANCHING—Turning white.

BLEB—Blister, bubble.

BRADYCARDIA—Abnormally slow heartbeat, evidenced by a pulse rate of 60 or less.

BRADYPNEA—Abnormally slow breathing.

BUBO—An inflamed swelling of a lymphatic gland, especially in the area of the armpit or groin.

BUCCAL—Referring to the cheek.

CARRIER—A person or animal that harbors specific infectious agents in the absence of discernible clinical disease, and serves as a potential source of infection for humans.

CASTS—Urinary sediments formed by coagulation of albuminous material in the kidney tubules.

CATABOLISM—A destructive process in which the complex compounds of the digestive process are reduced to more simple substances.

CATHARTICS—Drugs that promote bowel movement.

CERVICAL—Pertaining to the neck or the neck of any organ or structure.

CHEYNE-STOKES—Breathing characterized by alternating periods of apnea and deep respirations.

COAGULATION—Clotting.

COAPTATION—To fit together, as the edges of a wound or the ends of a fractured bone; category of splint.

COCCYX—Tailbone.

COLATION—The process of straining or filtration.

COMMUNICABLE—Capable of being transmitted from one person to another.

COMMUNICABLE PERIOD—The period of time in which an infectious agent may be passed from an infected animal or man to a receptive host. There may be more than one such period of time during the course of disease.

COMMINUTION—The process of physical reduction of a substance to fine particle size.

CONTACT—A person or animal known to have been associated with an infected person or animal, or a contaminated environment, and to have had the opportunity to acquire the infection.

CONTAMINATION—The presence of an infectious agent or toxin on the surface of a body or inanimate article, such as clothing, dishes, surgical dressings or instruments, as well as in food or water.

CONTRACTURE—A condition of muscle shortening and fibrous tissue development that results in a permanent joint deformity.

CONTUSION—A bruise.

CORROSIVE—A substance that rapidly destroys or decomposes body tissue at point of contact.

CREPITUS—The cracking or grating sound produced by fragments of fractured bones rubbing together.

DEBILITY—The state of abnormal bodily weakness.

DEBRIDEMENT—The removal of all foreign matter and devitalized tissue in or about a wound.

DECANTATION—Separating liquids from solids by letting the solids settle to the bottom and pouring off the liquid.

DECEREBRATE—A person with brain damage that produces certain abnormal neurologic signs.

DECORTICATION—Removing portions of the cortical substance of a structure or organ, such as the brain, kidney, or lung.

DECUBITUS ULCER—Bed or pressure sore.

DESQUAMATE—To shed, peel, or scale off.

DIASTOLE—The dilation or period of dilation of the heart, especially of the ventricles.

DIATHERMY—The generation of heat in tissue by electric current for medical or surgical purposes.

DISINFECTION—The killing of infectious agents outside the body by physical or chemical means applied directly.

concurrent—Done during the treatment of a patient with a communicable disease.

terminal—Done after a patient has been discharged or transferred.

DISINFESTATION—A physical or chemical means of destroying animal or insect pests in a particular area.

DISTILLATION—Converting a liquid to a vapor by applying heat and condensing the vapor back to liquid by cooling.

DIURESIS—Urine excretion in excess of the usual amount.

DIURETICS—Drugs that increase the secretion of urine.

DYSPNEA—Labored or difficult breathing.

ECCHYMOSIS—A small hemorrhagic spot, larger than a petechia, in the skin or mucous membrane, forming a nonelevated, rounded or irregular, blue or purplish patch.

ELECTROLYTE—A substance that dissociates into ions in solution or when fused, thereby becoming capable of conducting electricity.

ELIXIR—An aromatic, sweetened, hydroalcoholic solution containing medicinal substances.

EMBOLUS—A clot or other plug brought by the blood from another vessel and forced into a smaller one, thereby obstructing circulation.

EMETIC—A substance that causes vomiting.

EMOLLIENT—A drug that softens, soothes, or smooths the skin or irritated surfaces.

EMULSION—A liquid preparation containing two unmixable liquids, such as oil and water, one of which is dispersed as globules in the other.

ENCAPSULATED—Enclosed within a capsule.

ENDEMIC—The constant presence of a disease in a given locality.

ENTERIC—Of or within the intestine.

EPIDEMIC—The outbreak of disease in a geographic area in excess of normal expectations.

EPIDEMIOLOGY—The study of epidemics and epidemic diseases.

EPISTAXIS—Nosebleed.

EPIZOOTIC—Attacking many animals in a region at the same time.

ERADICATE—Wipe out; destroy.

ERYTHEMA—Redness.

ERYTHROCYTE—Red blood cell.

EUPNEA—Ordinary, quiet breathing.

EUTAXIA—The liquification of solids mixed in a dry state.

EXSANGUINATION—Extensive loss of blood due to hemorrhage, either internal or external.

EXTENSION—Straightening or unbending, as in straightening the forearm, leg, or fingers.

EXTRAVASATION—A discharge or escape, such as blood from a vessel into the tissue.

EXTRICATION—The process of freeing a victim, such as from a wrecked car or flooded compartment.

FLEXION—Bending, as in bending an arm or leg.

FOMITE—An object, such as a book, wooden object, or an article of clothing, that is not in itself harmful, but is able to harbor pathogenic microorganisms and thus may serve as an agent of transmission of an infection.

FUMIGATION—The destruction of disease-producing animals or insects by gaseous agents.

FUNGICIDE—A drug that kills fungus.

FURUNCLE—An abscess in the true skin caused by the entry of microorganisms through a hair follicle or sweat gland.

FUSION—Melting.

GASTROSTOMY—A surgical opening from the external surface of the body into the stomach, usually for inserting a feeding tube.

GAVAGE—Introducing a substance into the stomach through a tube.

GERMICIDE—An agent that kills germs.

GESTATION—The period of carrying developing offspring in the uterus after conception.

GLYCOSURIA—Glucose in the urine.

GRAM-NEGATIVE—A microorganism that does not retain Gram's crystal violet and is stained by the counterstain.

GRAM-POSITIVE—A microorganism that is stained by Gram's crystal violet.

HEMACYTOMETER—An instrument for estimating the number of blood cells in a measured volume of blood.

HEMATEMESIS—Vomiting bright red blood.

HEMATOCRIT—A determination of the volume percentage of red blood cells in whole blood.

HEMIPLEGIA—Loss of motion and sensation of one side of the body.

HEMOGLOBIN—Iron containing red pigment (heme) combined with a protein substance (globin).

HEMOLYSIN—Substance that breaks down red blood cells, thereby liberating hemoglobin.

HEMOPTYSIS—Coughing up bright red blood.

HEMOSTATICS—Drugs that control external bleeding by forming an artificial clot.

HISTOLOGY—The microscopic study of tissue structure.

HOST—A man or other living animal affording subsistence or lodgment to an infectious agent under natural conditions.

HYDROTHERAPY—The scientific use of water in the treatment of disease.

HYPERGLYCEMIA—Abnormally increased content of sugar in the blood.

HYPERPNEA—Increased rate and depth of breathing.

HYPERTENSION—High blood pressure.

HYPERTHERMIA—Abnormally high body temperature, especially that induced for therapeutic purposes.

HYPOGLYCEMIA—Low blood sugar.

HYPOPNEA—Abnormal shallowness and rapidity of breathing.

HYPOSTASIS—Poor or stagnant circulation in a dependent part of the body or organ, as in venous insufficiency.

HYPOTENSION—Low blood pressure.

HYPOTHERMIA—Abnormally low body temperature.

HYPOVOLEMIA—Abnormally decreased volume of circulating fluid (plasma) in the body.

HYPOXIA—Low oxygen content or tension; deficiency of oxygen in the inspired air.

IMMISCIBLE—Incapable of being mixed.

IMMUNE PERSON—An individual who does not develop clinical illness when exposed to specific infectious agents of a disease, due to the presence of specific antibodies or cellular immunity.

IMMUNITY—A defense mechanism of the body which renders it resistant to certain organisms.

INAPPARENT INFECTION—An infection with no detectable clinical symptoms, even though the causative infectious agent may be identifiable with laboratory examinations. It is also known as an asypmtomatic or subclinical infection.

INCIDENCE RATE—The number of specific disease cases diagnosed and reported in a specific population in a defined period of time. It is usually expressed as cases per 1,000 or 100,000 annually.

INCISION—A cut, or a wound produced by cutting with a sharp instrument.

INCOMPATIBLE—Not suitable for combination or simultaneous administration.

INCONTINENT—Unable to control excretory functions.

INCUBATION PERIOD—The period of time between the initial exposure to an infectious agent and the first clinical symptoms of the disease.

INDURATION—An abnormally hard spot or place.

INFECTION—A condition resulting when pathogens enter body tissues, multiply, and cause injury to cells.

INFECTIOUS AGENT—An organism capable of producing infection or disease.

INFECTIOUS DISEASE—A disease of man and animal resulting from an infection.

INFESTATION—The establishment and multiplication of small animals or arthropods (especially insects and rodents) on the body, clothing, or habitat of individuals or animals.

INGUINAL—Pertaining to the abdomen.

INSTRUCTION—A directive containing authority or information having continued reference value or requiring continuing action.

INTEGUMENTARY (SYSTEM)—The skin and its accessory structures, including hair and nails.

INTRADERMAL—Into the dermis.

INUNCTION—Rubbing in.

ISCHEMIA—The lack of blood supply to specific areas due to constriction or obstruction in the blood vessels.

ISOLATION—Procedures taken to separate infected persons or animals, dispose of their secretions, and disinfect or sterilize the supplies, equipment, utensils, etc., used for their care, in order to prevent the spread of disease to susceptible persons or animals. Different procedures may be required for the specific infectious agent involved.

ISOTONIC—A solution having the same salinity as whole blood.

KERATOLYTIC—Removes horny layers of epidermis.

LACERATED—Torn.

LACERATION—A wound made by tearing and resulting in jagged edges.

LACRIMATION—The secretion of tears.

LACRIMATORS—Tear gases.

LACTATION—The production of milk.

LATENT—Concealed; not manifest; potential.

LAVAGE—The irrigation or washing out of an organ (such as the stomach or bowel).

LESION—Any pathological or traumatic discontinuity of tissue or loss of function of a part.

LEUKOCYTE—White blood cell.

LEUKOCYTOSIS—Abnormally high white blood cell count.

LEUKOPENIA—Abnormally low white blood cell count.

LEVIGATION—Adding a small amount of liquid to a mortar and pestle while triturating.

LIGAMENT—A sheet or band of tough, fibrous tissue connecting two or more bones or cartilages, or supporting an organ, fascia, or muscle.

LINIMENT—Solution or mixture of various substances in oily, alcoholic, or emulsified form, intended for external application.

LUMBAR—Pertaining to the part of the back between the thorax and the pelvis.

LYOPHILIZATION—The creation of a stable preparation of a biological substance (blood plasma, serum, etc.) by rapid freezing and dehydration of the frozen product under high vacuum.

MACERATION—Softening of a solid by soaking.

MAGMAS—Thick, creamy, aqueous suspensions of inorganic substances in a very fine state.

MALAISE—A vague feeling of bodily discomfort.

MASTICATION—Chewing.

MEDICAL ASEPTIC TECHNIQUE—The practice that prevents the spread of pathogens from person to person, place to place, or place to person.

MELENA—Excretion of black tarry stools.

METABOLISM—The sum of all the physical and chemical processes by which living organized substance is produced and maintained. Also, the transformation by which energy is made available to the organism.

METAMORPHOSIS—Change of shape or structure, particularly a transition from one development stage to another, as from larva to adult form.

METROLOGY—The science of weights and measures.

MICROORGANISM—A minute, living organism invisible to the naked eye.

MICTURATION—Voiding; urinating.

MORBIDITY RATE—An incidence rate that includes all persons in a particular population who become ill during a specific period of time.

MORPHOLOGY—The science of forms and structure of organized beings.

MORTALITY RATE—The number of deaths, reported in a particular population, over a specific period of time, divided by the total population, reported as deaths per 1,000 population. If the deaths are from one cause, then it is known as a disease-specific mortality rate.

MOTTLED—Marked with blotches or spots of different colors or shades.

MUCUS—A sticky substance secreted by mucous membranes.

MYDRIATIC—Any drug that dilates the pupil.

MYELIN—A lipid substance that forms a sheath around certain nerve fibers.

MYELINATED—Covered with a myelin sheath.

NECROSIS—The death of tissue, usually in small, localized areas.

NOSOCOMIAL—Originating in a hospital.

NOTICE—A directive of a one-time or limited nature that has a self-canceling provision and the same force or effect as an instruction.

NUTRITION—The total process of providing the body with nutriments, and assimilating and using them.

OINTMENT—A semisolid, fatty, or oily preparation of medicinal substances for external application.

OLFACTORY—Pertaining to the sense of smell.

OLIGEMIA—Deficiency in the volume of blood.

OPHTHALMIC—Pertaining to the eye.

ORGANISM—Any living thing.

OSMOSIS—The diffusion of fluids through a membrane or porous partition.

OSSIFICATION—Changing or developing into bone.

OXIDATION—The union of a substance with oxygen.

PALPABLE—Capable of being touched or felt.

PALPITATION—An abnormal, rapid, regular or irregular beating of the heart, felt by the patient.

PARAPLEGIA—Loss of motion and sensation of the lower half of the body.

PARASITICIDES—Drugs that kill parasites.

PARENTERAL—Administration of drugs by injection.

PARESIS—Slight or partial paralysis.

PAROXYSM—A sudden attack, or intensification of the symptoms of a disease, usually recurring periodically.

PATHOGEN—An organism capable of producing disease or causing infections.

PATHOGENICITY—The capability of an infectious agent to cause disease in a susceptible host.

PERCUSSION—The act of striking a body part with short, sharp blows as an aid in diagnosing the condition by evaluating the sound obtained.

PERIPHERAL—Outward part or surface.

PERSISTENT—Stubborn; persevering.

PETECHIA—(*pl*. petechiae) A round pinpoint, nonraised, purplish red spot caused by hemorrhage in the skin.

pH—Scale measuring the acidity or alkalinity of a solution.

PHAGOCYTOSIS—The ingestion and destruction by phagocytes of cells, microorganisms, and other foreign matter in the blood or tissue.

PHARMACOGNOSY—The study of the action of drugs and their uses.

PHYSIOLOGICAL—Characteristic of or appropriate to an organism's functioning.

PLEXUS—Network.

PRECIPITATION—The quality or state of being separated from solution or suspension by chemical or physical change, usually as an insoluble amorphous or crystalline solid.

PRONE—Lying face down.

PROPHYLACTIC—The prevention of disease; preventive treatment.

PROPORTION—Two equal ratios considered simultaneously.

PROSTRATION—Utter exhaustion.

PRURITIS—Intense itching.

PSYCHOLOGICAL—Belonging to or of the nature of psychology; the mental process.

PURULENT—Pus filled or containing pus.

PUSTULE—A small, inflamed elevation of the skin containing pus.

QUADRAPLEGIA—Loss of motion and sensation below the neck.

RALES—An abnormal sound, either moist or dry, classified by location (e.g., bronchial rales, laryngeal rales).

RATIO—The relationship of one quantity to another of like units.

RESERVOIR—A carrier on which an infectious agent depends primarily for survival.

RESISTANCE—The sum total of body mechanisms that provide barriers to the invasion of infectious agents or their toxic products.

RHINORRHEA—The free discharge of a thin nasal mucus.

RHONCHUS—(*pl.* rhoncii) A rattling throat sound due to partial obstruction; a dry coarse rale in the bronchial tubes.

SACRUM—Triangular bone just below the lumbar vertebrae.

SANITIZATION—The process of cleaning with soap and water or boiling to reduce the number of organisms to a safe level.

SEPSIS—The growth of pathogens in living tissue.

SERUM—(*pl*. serums *or* sera) The watery portion of an animal fluid remaining after coagulation; plasma minus the clotting proteins and clotting cells.

SHOCK—Collapse of the cardiovascular system, characterized by circulatory deficiency and depression of vital functions.

SOLUBILITY—The ability of a solid to dissolve in a given amount of solvent.

SPIRITS—Alcoholic or hydroalcoholic solutions of volatile substances.

SPORE—A microorganism in a resting or dormant state that renders it highly resistant to destruction.

SPRAIN—Injury to the ligaments and soft tissues that support a joint.

STERILE—Free of all living organisms.

STERILIZATION—The process of destroying all organisms on a substance or article by exposure to physical or chemical agents; the process by which all organisms, including spores, are destroyed.

STERNUNTATORS—Vomiting agents.

STERTOROUS—Snoring-type breathing sound.

STRAIN—Forcible overstretching or tearing of a muscle or tendon.

STRIATED—Striped or streaked.

STRIDOR—A harsh, high-pitched respiratory sound such as the inspiratory sound often heard in acute laryngeal obstruction.

SUBCUTANEOUS—Under the skin.

SUBLINGUAL—Under the tongue.

SUPERFICIAL—Of or pertaining to the surface, lying on, not penetrating below.

SUPINE—Lying on the back.

SURGICAL ASEPTIC TECHNIQUE—The practice that renders and keeps objects and areas free from all organisms.

SURGICALLY CLEAN—Clean but not sterile.

SUSCEPTIBLE—Not resistant. A person or animal who may acquire an infection or disease when exposed to a specific agent, because his or her resistance to the agent is lacking or reduced.

SUSPECT—A person who may have acquired a communicable disease; it is indicated by the medical history and clinical presentation.

SUSPENSION—A coarse dispersion of finely divided insoluble material suspended in a liquid medium.

SYNCOPE—Faintness or actual fainting.

SYNERGIST—A medicine that aids or cooperates with another.

SYRUP—Concentrated aqueous solutions of sucrose, containing flavoring or medicinal substances.

TACHYCARDIA—Excessively rapid heart beat, usually over 100.

TAENIAFUGE—A drug that expels tapeworms without necessarily killing them.

TENDON—A fibrous cord by which a muscle is attached to the skeleton.

THORACIC—Pertaining to or affecting the chest.

THROMBUS—A plug or clot in a blood vessel or in one of the cavities of the heart, formed by coagulation of the blood. It remains where it was formed.

TINCTURE—Usually an alcoholic solution of animal or vegetable drugs.

TINNITUS—Ringing in the ears.

TOXEMIA—Poisonous products in the blood.

TOXICOLOGY—The science of poisons.

TOXINS—Poisons.

TRACHEOSTOMY—Surgically creating an opening into the trachea.

TRIAGE—Sorting casualties to determine priority of treatment.

TRITURATION—A process of reducing a solid to a very fine powder by grinding in a mortar and pestle.

URTICARIA—Hives or welts.

UREMIA—A condition resulting from waste products not being removed efficiently by the kidneys so that they remain in the blood.

VASCULAR—Pertaining to blood vessels.

VASOCONSTRICTOR—An agent that constricts the blood vessels.

VASODILATOR—An agent that dilates the blood vessels.

VERMICIDE—A drug that expels worms without necessarily killing them.

VESICANT—A blistering drug or agent.

VESICATION—The process of blistering.

VESICLE—A small blister.

VIRULENCE—The degree of pathogenicity of a microorganism or its ability to invade the tissues of the host.

WATERS—Aqueous solutions of volatile substances.

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APPENDIX VI

TRADEMARK COMPANIES

The following is a list of trademarks used in this manual.

ACE®	Becton Dickinson and Company
Achromycin®	Lederle Labs
Actifed®	Warner-Lambert Co.
Adrenalin Chloride®	Parke-Davis
Afrin®	Schering-Plough
Aftate®	Schering-Plough
All-Bran®	Kellogg's®, a registered trademark of Kellogg Company
Amoxil®	SmithKline Beecham
Amphojel®	Wyeth-Ayerst
Anaprox®	Roche Laboratories
Ancef®	SmithKline Beecham
Antiminth®	Pfizer
Antivert®	Pfizer
Aralen®	Sanofi
Atarax®	Pfizer
Bactrim®	Roche Laboratories
Benadryl®	Warner-Lambert Co.
Betadine®	Purdue Frederick
Betapen-VK®	Mead Johnson
Bicillin®	Wyeth-Ayerst
Bleph-10®	Allergan
Bonine®	Pfizer
Bran Buds®	Kellogg's®, a registered trademark of Kellogg Company
Bran Flakes®	Post®, a registered trademark of Kraft Foods Inc.
Cardizem®	Hoechst Marion Roussel

Ceftin®	Glaxo Wellcome
Chlor-Trimeton®	Schering-Plough
CIDEX®	Johnson & Johnson Medical, Inc.
Claforan®	Hoechst Marion Roussel
Cleocin®	Pharmacia & Upjohn
Colace®	Roberts
Compazine®	SmithKline Beecham
Coumadin®	DuPont
Darvon®	Teva Pharmaceuticals USA
Demerol HCl®	Sanofi
Desenex®	Novartis
Desoxyn®	Abbott Pharmaceutical
Dexedrine®	SmithKline Beecham
Diamox®	Lederle Labs
Dilantin®	Parke-Davis
Dispenstir®	Hynson, Westcott, and Dunning, Inc.
Domeboro®	Bayer Corporation
Dramamine®	Pharmacia & Upjohn
Dulcolax®	Novartis Consumer
Dyazide®	SmithKline Beecham
Dynapen®	Bristol-Myers Squibb
Dyrenium®	SmithKline Beecham
E-Mycin®	Knoll Labs
Ecotrin®	SmithKline Beecham
Elavil®	Zeneca
Elimite®	Herbert Pharma
Entex®LA	Proctor & Gamble Pharmaceuticals
Equanil®	Wyeth-Ayerst
Ergotrate® Maleate	Lilly
Eryc®	Warner Chilcott Professional Products
Esidrix®	Ciba-Geigy Pharmaceutical

Eskalith®	SmithKline Beecham
Eurax®	Westwood-Squibb
Ex-Lax®	Novartis Consumer
Fansidar®	Roche Laboratories
Feldene®	Pfizer
Flagyl®	Searle
Flexeril®	Merck
Fluothane®	Wyeth-Ayerst
Fulvicin®	Schering
Gantrisin®	Roche Laboratories
Gentamycin®	Boehringer Ingelheim
Gris-PEG®	Allergan
Haldol®	Ortho-McNeil Pharmaceutical
HydroDIURIL®	Merck
Hygroton®	Rhone-Poulenc Rorer
Ilotycin®	Dista
Indocin®	Merck
Innovar®	Janssen
Isoptin®	Knoll Labs
Isordil®	Wyeth-Ayerst
Kaopectate®	Pharmacia & Upjohn
Keflex®	Dista
Kefzol®	Lilly
Ketalar®	Parke-Davis
Lanoxin®	Glaxo Wellcome
Lasix®	Hoechst Marion Roussel
Librium®	Roche Products
Lithonate®	Solvay
Lomotil®	Searle
Lotrimin®	Schering-Plough
Luminal®	Bayer Corporation

Maalox®	Novartis Consumer
Maxzide®	Bertek
Medicut®	American Diagnostic Corporation
Mefoxin®	Merck
Mellaril®	Novartis Pharmaceuticals
Metamucil®	Proctor & Gamble
Micatin®	McNeil Consumer Products
Minocin®	Lederle Labs
Mintezol®	Merck
Monistat®	Ortho Dermatalogical
Monosticon DRI-DOT®	Organon Teknika Corporation
Motrin®	McNeil Consumer
Multistix®	Ames Company, a division of Miles Laboratories, Inc.
Mycelex®	Bayer
Mycifradin® Sulfate	Pharmacia & Upjohn
Mycostatin®	Westwood-Squibb
Mylanta®	Johnson & Johnson-Merck
Nebcin®	Lilly
Nembutal®	Abbott
Neo-Synephrine®	Sanofi
Nitro-Bid®	Hoechst Marion Roussel
Nitrostat®	Parke-Davis
Norgesic®	3M
Novocain®	Sanofi Winthrop Pharmaceuticals
Nupercainal®	Ciba-Geigy
One Step II Wright-Giemsa Stain Solution®	Criterion Sciences, a division of Cornwell Corporation
Ophthaine®	Bristol-Myers Squibb
Ophthetic®	Allergan
Oretic®	Abbott
Parafon Forte DSC®	Ortho-McNeil Pharmaceutical

PCE Dispertab®	Abbott
Pen-Vee K®	Wyeth-Ayerst
Persantine®	Boehringer Ingelheim
pHisoHex®	Sanofi
Pitocin®	Parke-Davis
Polycillin®	Mead Johnson
Primaquine® Phosphate	Sanofi Winthrop Pharmaceuticals
Procan SR®	Parke-Davis
Pronestyl®	Bristol-Myers Squibb Company
Prozac®	Dista
Pyridium®	Parke-Davis Pharmaceuticals, a division of Warner-Lambert Co.
Restoril®	Novartis
Rifampin®	Hoechst Marion Roussel
Ritalin®	Novartis
Robaxin®	Robins
Robitussin DM® **Robitussin AC®**	Whitehall-Robins Healthcare, a division of American Home Products Corporation
Sani-Supp®	Sandoz
Seconal®	Lilly
Septra®	Glaxo Wellcome
Shredded Wheat®	Post®, a registered trademark of Kraft Food Inc.
Silvadene Cream®	Hoechst Marion Roussel
Sodium Sulamyd®	E. Fougera & Co., a division of Altana Inc.
Sorbitate®	Zeneca
Sudafed®	Warner-Lambert Co.
Sumycin®	Apothecon
Surfak®	Hoechst-Roussel
Sus-Phrine®	Forest
Tagamet®	SmithKline Beecham
Talwin®	Sanofi Winthrop Pharmaceuticals
Thorazine®	SmithKline Beecham

Tinactin®	Schering-Plough
Tolectin®	Ortho-McNeil Pharmaceutical
Trobicin®	Pharmacia & Upjohn
Tylenol®	McNeil Consumer
Unopette® Microcollection System	Becton-Dickinson, a division of Becton, Dickinson and Company
V-Cillin K®	Eli Lilly
Valium®	Roche Products
Vancocin®	Lilly
Vermox®	Janssen
Vibramycin®	Pfizer
Visine Eye Drops®	Pfizer
Vistaril®	Pfizer
Virtual Naval Hospital™	A trademark of The University of Iowa
Wycillin®	Wyeth-Ayerst
Xylocaine®	Astra
Zantac®	Glaxo Wellcome
Zinacef®	Glaxo Wellcome

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Assignment Questions

Information: The text pages that you are to study are provided at the beginning of the assignment questions.

ASSIGNMENT 1

Textbook Assignment: "Anatomy and Physiology," pages 1-1 to 1-48.

1-1. When the body is in the anatomical position, the thumbs point

1. medially
2. laterally
3. anteriorly
4. posteriorly

1-2. A person lying on his/her back is in what position?

1. Prone
2. Erect
3. Supine
4. Lateral recumbent

1-3. The physical and chemical breakdown of the food we eat is called

1. digestion
2. metabolism
3. anabolism
4. catabolism

1-4. The transfer of fluids across the plasma membrane of a cell from an area of lower concentration to an area of higher concentration is a process known as

1. infusion
2. diffusion
3. perfusion
4. osmosis

1-5. Homeostasis is defined as

1. control of bleeding
2. absorption, storage, and use of food products
3. self-regulated control of the body's internal environment
4. the power of voluntary movement

1-6. That portion of a cell containing all the genetic material important in the cell's reproduction is called the

1. plasma membrane
2. nucleus
3. cytoplasm
4. reticulated endothelium

1-7. What type of tissue is known as the lining tissue of the body?

1. Connective
2. Areolar
3. Sebaceous
4. Epithelial

1-8. The secretion of digestive fluids and the absorption of digested foods and liquids is the chief function of which tissue?

1. Columnar
2. Osseus
3. Sercus
4. Squamous

1-9. Because this tissue is continuous throughout the body, if an infection were allowed to spread, it could reach every area of the body by moving through which of the following tissues?

1. Areolar
2. Adipose
3. Osseous
4. Fibrous

1-10. Which of the following are the two most prominent mineral elements of bone?

1. Ossein and calcium
2. Phosphorus and calcium
3. Sodium and phosphorus
4. Periosteum and ossein

1-11. The bones of the wrist are classified as which of the following bones?

1. Long
2. Short
3. Flat
4. Irregular

1-12. Bones of the cranium include which of the following?

1. Maxilla
2. Occipital
3. Atlas and axis
4. All of the above

1-13. The appendicular skeleton is composed of the bones of the

1. skull and vertebral column
2. thorax and vertebral column
3. pelvis and thorax
4. upper and lower extremities

1-14. The upper three ribs on each side are known as which of the following types of ribs?

1. True
2. False
3. Floating
4. Sternal

1-15. The head of the humerus is called the

1. scapula
2. acetabulum
3. glenoid falsa
4. epicordyle

1-16. The innominate bone is composed of three parts that are united in adults to form a cuplike structure called the

1. glenoid fossa
2. acetabulum
3. symphysis pubis
4. obturator foramen

1-17. The prominences easily felt on the inner and outer aspects of the ankle are called

1. medial and lateral malleolus
2. medial and lateral condyles
3. greater and lesser tuberosities
4. greater and lesser trochanters

1-18. Bones that develop within a tendon are known as which of the following?

1. Condyloid
2. Sesamoid
3. Vermiform
4. Falsiform

1-19. Moving an extremity away from the body is called

1. flexion
2. extension
3. abduction
4. adduction

1-20. The act of straightening a limb is known as

1. flexion
2. extension
3. abduction
4. adduction

1-21. The primary function of the muscles includes all of the following EXCEPT

1. providing heat during activity
2. maintaining body posture
3. producing red blood cells
4. providing movement

1-22. The ability of muscles to regain their original form when stretched is known as

1. contractiblity
2. elasticity
3. extensibility
4. tonicity

1-23. Actin and myosin are the two protein substances involved in

1. muscle recovery
2. muscle nourishment
3. muscle contraction
4. rigor mortis

1-24. Which of the following properties describes the ability of muscles to respond to a stimulus?

1. Contractility
2. Irritability
3. Extensibility
4. Tonicity

1-25. If a generally sedentary person in less than good physical condition enters a marathon with intent to complete the race, which of the following outcomes can he/she be expected to encounter?

1. If the day is cool, there will be no significant risk
2. Any physical deficiency can be overcome with a carbohydrate-rich diet before the race
3. If stretching exercises are performed before the race, he/she will be ok
4. He/she runs the risk of muscle damage

1-26. Intramuscular injections are frequently given in which of the following muscles?

1. Trapezius
2. Pectoralis majoris
3. Deltoid
4. All of the above

1-27. Intramuscular injections are usually given in which of the following muscles?

1. Quadriceps
2. Sartorius
3. Gastrocnemius
4. Gluteus maximus

1-28. The body's primary thermo-regulatory action is a function of dilating and contracting blood vessels and the

1. stratum germinativum
2. sweat glands
3. sebaceous glands
4. melanin

1-29. The total blood volume in the average adult is in what ranges?

1. 3 to 4 liters
2. 4 to 5 liters
3. 5 to 6 liters
4. 6 to 7 liters

1-30. A decreased red blood cell (RBC) count could be the result of a medical condition affecting the

1. compact bone
2. periosteum
3. yellow marrow
4. red marrow

1-31. Blood of the average female adult contains (a) how many million RBCs per (b) what unit?

1. (a) 4.5 (b) mm^3
2. (a) 6.0 (b) cm^3
3. (a) 4.5 (b) 1
4. (a) 4.5 (b) low power field

1-32. A white blood cell (WBC) count of 18,000 may indicate what condition?

1. Leukocytosis
2. Normalcy
3. Infection
4. Vetiligo

1-33. In an accident victim suffering from a fibrinogen deficiency, the rescuer may have difficulty performing which of the actions listed below?

1. Controlling hemorrhage
2. Immobilizing a fracture
3. Supporting respiratory function
4. Reducing a dislocation

1-34. In addition to preventing excessive blood loss, the formation of a blood clot serves which, if any, of the following purposes?

1. To convert fibrinogen into blood serum to aid healing
2. To form the foundation for new tissue growth
3. To manufacture leukocytes
4. None of the above

1-35. The valves of the heart include all of the following EXCEPT

1. atrial
2. mitral
3. tricuspid
4. pulmonary

1-36. Oxygenated blood is carried by which of the following vein(s)?

1. Inferior vena cava
2. Superior vena cava
3. Portal
4. Pulmonary

1-37. The contraction phase of the heart is

1. systole
2. tension
3. diastole
4. active

1-38. The pulse pressure is the difference between which of the following measurements?

1. Venous and arterial pressure
2. Resting and active pulse rate
3. Arterial and ventricular pressure
4. Systole and diastole

1-39. The venous system that carries digested materials from the intestinal tract is called the

1. portal
2. pulmonary
3. abdominal
4. pelvic

1-40. Lymph nodes participate in all of the following functions EXCEPT

1. manufacture of white blood cells
2. filtration of bacterial debris
3. production of hormones
4. collection of large protein molecules

1-41. Windpipe is another term for

1. nares
2. larynx
3. trachea
4. pharynx

1-42. The primary muscle of respiration is known as the

1. pleura
2. alveolus
3. diaphragm
4. mediastinum

1-43. Of the following nerves, which, if any, controls the larynx during the process of breathing?

1. Phrenic
2. Intercostal
3. Vagus
4. None of the above

1-44. A nerve cell, or neuron, is composed of all of the following EXCEPT a/an

1. synapse
2. axon
3. cyton
4. dendrite

1-45. The impulse receptors of a nerve are called

1. dendrites
2. Schwann cells
3. ganglia
4. neurons

1-46. The space through which a nerve impulse passes from one neuron to another is called a/an

1. myelin sheath
2. synapse
3. axon
4. ganglion

1-47. Balance, coordination of movement, and harmony of motion are functions of what part of the brain?

1. Cerebral cortex
2. Cerebellum
3. Pons
4. Temporal lobe

1-48. Circulation and respiration are controlled primarily from what area of the brain?

1. Medulla oblongata
2. Pons
3. Cerebellum
4. Cerebrum

1-49. The meninges, membrane layers covering of the brain and spinal cord, are composed of all of the following EXCEPT the

1. dura mater
2. pia mater
3. arachnoid
4. foramen magnum

1-50. In what part of the body is cerebral spinal fluid produced?

1. Ventricles of the brain
2. Spinal cord
3. Meninges
4. Medulla oblongata

1-51. The 12 pairs of cranial and 31 pairs of spinal nerves form what nervous system?

1. Peripheral
2. Central
3. Autonomic
4. Sympathetic

A. Facial
B. Trigeminal
C. Hypoglossal
D. Accessory

IN ANSWERING QUESTIONS 1-52 THROUGH 1-54, SELECT FROM THE LIST ABOVE THE CRANIAL NERVE THAT PERFORMS THE FUNCTION LISTED IN EACH QUESTION.

1-52. Controls the muscles of the tongue.

1. A
2. B
3. C
4. D

1-53. Transmits sensation of taste.

1. A
2. B
3. C
4. D

1-54. Receives sensory input from the face.

1. A
2. B
3. C
4. D

1-55. The autonomic nervous system is composed of two main divisions: the

1. pons and medulla oblongata
2. voluntary and involuntary systems
3. sympathetic and parasympathetic systems
4. cerebrum and cerebellum

1-56. Conservation and restoration of energy are the result of nerve impulses arising from which, if any, of the following nervous systems?

1. Sympathetic
2. Parasympathetic
3. Voluntary
4. None of the above

A. Sympathetic
B. Central
C. Peripheral
D. Parasympathetic

IN ANSWERING QUESTIONS 1-57 THROUGH 1-60, SELECT FROM THE LIST ABOVE THE NERVOUS SYSTEM THAT IS MOST RESPONSIBLE FOR THE SYMPTOM OR FUNCTION GIVEN IN THE QUESTION.

1-57. Increased heart rate.

1. A
2. B
3. C
4. D

1-58. Vision.

1. A
2. B
3. C
4. D

1-59. Decreases heart rate to normal.

1. A
2. B
3. C
4. D

1-60. Reflex arc.

1. A
2. B
3. C
4. D

1-61. Hormones secreted by the endocrine system are

1. secreted directly into the gland, tissue, or organ it influences
2. directed to the gland, tissue, organ by a duct system
3. secreted into the circulatory system
4. typically produced in large quantities

1-62. The overproduction of which hormone leads to acromegaly?

1. Somatotropin
2. Oxytocin
3. Gonadotropin
4. Thyroxin

1-63. Which of the following diseases is characterized by a deficiency of the antidiuretic hormone?

1. Myxedema
2. Diabetes insipidus
3. Hyperthyroidism
4. Addison's disease

1-64. An insufficient secretion of thyroxin is characterized by all of the following symptoms EXCEPT

1. weight gain
2. fatigue
3. profuse sweating
4. slowed heart rate

1-65. Calcium levels in the blood are controlled by which of the following hormones?

1. Thyroxin
2. Vasopressin
3. Oxytocin
4. Parathormone

1-66. Electrolyte balance is a function of the hormone produced by the

1. posterior lobe of the pituitary gland
2. anterior lobe of the pituitary gland
3. cortex of the adrenal gland
4. medulla of the adrenal gland

1-67. A metabolic response to epinephrine includes which, if any, of the symptoms listed below?

1. Decreased heart rate
2. Increased blood pressure
3. Respiratory distress
4. None of the above

1-68. What hormone is produced by the alpha cells of the islands of Langerhans in the pancreas?

1. Glucagon
2. Insulin
3. Norepinephrine
4. Androgens

1-69. The cornea is part of the protective outer layer of the eye called the

1. sclera
2. conjunctiva
3. choroid
4. crystalline body

1-70. The inner part of the eye derives its nourishment primarily from the vascular structure of what tissue?

1. Conjunctiva
2. Sclera
3. Vitreous humor
4. Choroid

1-71. Dilation of the pupil, a muscular response of the iris, normally occurs as a result of what?

1. Increased intensity of light
2. Decrease intensity of light
3. Irritation to the sclera
4. Irritation to the conjunctiva

1-72. Of the elements listed below, which makes seeing in the dark possible?

1. Rods
2. Cones
3. Iris
4. Choroid

1-73. By what process is three-dimensional vision produced?

1. Accommodation
2. Convergence
3. Refraction
4. Stimulation

1-74. The mechanical transmission of sound from the tympanic membrane to the inner ear is a function of which of the following?

1. Auditory ossicles
2. Eustachian tube
3. Bony labyrinth
4. Organ of Corti

1-75. What structure(s) of the inner ear provide(s) neural stimuli used to maintain equilibrium?

1. Fenestra rotunda
2. Fenestra ovalis
3. Semicircular canals
4. Organ of Corti

ASSIGNMENT 2

Textbook Assignment: "Anatomy and Physiology," chapter 1—continued, pages 48-63; "Fundamentals of Patient Care," chapter 2, pages 2-1 through 2-39.

2-1. The conversion of mechanical impulses (sound waves) to neural impulses that can be interpreted by the brain is a function of the

1. endolymph
2. semicircular canals
3. organ of Corti
4. fenestra ovalis

2-2. The enzymatic action of amylase results in the chemical breakdown of

1. fats to fatty acids
2. starches to fats
3. starches to complex sugars
4. proteins to complex sugars

2-3. Absorption of food occurs predominantly in which of the following areas of the intestines?

1. Duodenum
2. Jejunum
3. Ileum
4. Cecum

2-4. Of the organs listed below, which function as the accessory organs of digestion for the small intestines?

1. Pancreas, liver, villae
2. Spleen, liver, gallbladder
3. Pancreas, pylorus, spleen
4. Pancreas, liver, gallbladder

2-5. The gallbladder performs which of the following purposes?

1. Stimulates the production of insulin
2. Stores bile
3. Metabolizes sugars
4. Produces antibodies

2-6. The functional unit of the kidney is called the

1. nephron
2. Malpighian body
3. glomerulus
4. loop of Henle

2-7. Which of the following is/are (a) function(s) of the kidneys?

1. To maintain acid-base balance
2. To remove certain toxic substances
3. To remove excess sugar
4. All the above

2-8. Blood concentration varies due to which, if any, of the following factors?

1. Temperature
2. Water intake
3. State of health
4. None of the above

2-9. What is the approximate total capacity of the adult bladder?

1. 250 ml
2. 300 ml
3. 600 ml
4. 750 ml

2-10. Testosterone production is a function of which of the following glands?

1. Cowper's
2. Prostate
3. Testes
4. Bulbourethral

2-11. Which of the following is/are considered the primary female reproductive organs?

1. Ovaries
2. Fallopian tubes
3. Uterus
4. Endometrium

2-12. Fertilization of an ovum normally takes place in the

1. ovaries
2. fallopian tubes
3. uterus
4. vagina

2-13. The concepts of health include

1. the absence of disease or disability
2. soundness of mind, body, and spirit
3. both 1 and 2 above
4. a feeling of euphoria

2-14. Patient rights and responsibilities are standards addressed by what organization?

1. Commander, Navy Medical Command (formerly Bureau of Medicine and Surgery)
2. American Medical Association (AMA)
3. Joint Commission on Accreditation of Healthcare Organizations (JCAHO)
4. National League of Nursing (NLN)

2-15. The limitations imposed upon a healthcare provider are based on local regulations and which of the following elements?

1. The rating's occupational standards
2. The rate training manual
3. The provider's training and experience
4. All of the above

2-16. In the healthcare field, accountability means that providers

1. are held responsible for their actions
2. must continue their education in the healthcare field
3. are bound by a code of ethics
4. all the above

2-17. A patient requests your advice or opinion concerning the care or proposed care (s)he is undergoing. Which, if any, of the following is the appropriate response?

1. Answer honestly, to the best of your ability
2. Refer the patient to the nurse or physician responsible for his/her care
3. Say you'll ask your supervisor
4. None of the above

2-18. Personal and medical information learned about a patient as the result of your position as a Hospital Corpsman is privileged and must not be divulged to unauthorized individuals.

1. True
2. False

A. Learned and shared behavior patterns and standards.

B. How one responds to and regards others.

C. Inherited characteristics.

D. Belief system.

TO ANSWER QUESTIONS 2-19 THROUGH 2-21, SELECT FROM THE ABOVE LIST THE STATEMENT THAT MOST ACCURATELY DESCRIBES THE TERMS GIVEN IN THE QUESTION. NOT ALL STATEMENTS WILL BE USED.

2-19. Interpersonal relations.

1. A
2. B
3. C
4. D

2-20. Culture.

1. A
2. B
3. C
4. D

2-21. Race.

1. A
2. B
3. C
4. D

2-22. A patient who is a professed atheist is placed on the Very Serious List (VSL) with a poor prognosis for recovery. All of the following actions by the staff are considered appropriate and ethical EXCEPT

1. informing the rest of the staff of the patient's nonreligious beliefs
2. informing the rest of the staff of the patient's condition
3. informing pastoral services (chaplain) of the patient's condition and nonreligious beliefs
4. attempting to convince the patient to accept a religious belief

2-23. The communication process takes place only through the written or spoken word.

1. True
2. False

2-24. Communication barriers inhibit the flow of information and may consist of which of the following factors?

1. Decreased auditory acuity
2. Age
3. Education
4. All the above

2-25. The most common cause of ineffective communication and the most difficult obstacle to identify is which of the following barriers?

1. Psychological
2. Physical
3. Psychosocial
4. Spiritual or religious

2-26. In the communication process, listening is a critical skill and can be improved by developing which, if any, of the following attitudes and behaviors?

1. Anticipating what the patient will say
2. Minimizing distractions
3. Taking notes
4. None of the above

2-27. The purpose of therapeutic communication includes all of the following EXCEPT

1. assessing behavior and modifying if appropriate
2. educating a patient regarding health and health care
3. providing information on how to get to the appropriate clinic for treatment
4. obtaining information to determine a patient's illness

A. Contact point communication
B. Therapeutic communication

TO ANSWER QUESTIONS 2-28 THROUGH 2-31, SELECT FROM THE LIST ABOVE THE TERM THAT MOST APTLY APPLIES TO THE REQUIREMENT PRESENTED.

2-28. Developing a patient's history of a complaint.

1. A
2. B

2-29. Explaining the necessities and methods of personal hygiene to the parent of a young patient.

1. A
2. B

2-30. Providing self-care instructions to a patient released to convalescent leave.

1. A
2. B

2-31. Directing the patient to the pharmacy to fill a prescription.

1. A
2. B

2-32. Which of the following are goals of patient health education?

1. Promoting patient self-care
2. Promoting behavior modification
3. Influencing a patient's attitude toward health and disease
4. All the above

2-33. Patient education is the responsibility of

1. the members of the command education and training department
2. only the physician and nurses for the patient
3. all members of the healthcare team
4. the outpatient staff and clinic supervisor only

Kind(s) of observation(s)
A. Subjective only
B. Objective only
C. Both subjective and objective

TO ANSWER QUESTIONS 2-34 THROUGH 2-38, SELECT FROM THE ABOVE LIST THE TYPE(S) OF OBSERVATION(S) THAT MOST ACCURATELY APPLY(S) TO THE SCENARIO DESCRIBED IN THE QUESTION.

2-34. In the emergency room, you are examining a patient who suddenly vomits and tells you he has been feeling nauseous for the past several hours.

1. A
2. B
3. C

2-35. A patient claims to have swallowed many pills and complains of sleepiness and nausea.

1. A
2. B
3. C

2-36. An EKG performed on a patient is interpreted as normal and the patient's breathing improves with oxygen therapy.

1. A
2. B
3. C

2-37. A patient complains of chest pain and has difficulty breathing.

1. A
2. B
3. C

2-38. When picking up a patient's dinner tray, you notice that only the liquids have been consumed at this meal, although the patient has normally eaten full meals before this.

1. A
2. B
3. C

2-39. A medical patient is prescribed therapeutic bed rest primarily for what reason?

1. To inhibit the development of circulatory problems
2. To prevent depression and apathy
3. To prevent further damage to body systems
4. To inhibit the development of respiratory problems

2-40. A health care provider can reasonably expect that all patients admitted for surgical procedures will exhibit which of the following characteristics?

1. Be very demanding
2. Be apathetic and passive
3. Exhibit violent behavior
4. Be fearful and anxious

2-41. SF 522, Request for Administration of Anesthesia and for Performance of Operations and other Procedures, is normally signed by a parent, legal guardian, or spouse EXCEPT when the patient is

1. able to do so
2. over 16 years of age but under 18
3. over 18 years of age but under 21
4. a member of the Armed Forces

2-42. When a regional anesthetic is administered, the patient can expect what effect?

1. Motor, but not sensory perception will diminish
2. Pain will be reduced or eliminated in the body part injected or swabbed
3. Level of consciousness will decline
4. The entire body will become numb

2-43. In general anesthesia, a stimulation of vital signs is evidence of what level of anesthesia induction?

1. Stage 1
2. Stage 2
3. Stage 3
4. Stage 4

2-44. Dropping a metal basin on the operating room floor may cause a violent response from a general anesthesia patient in what stage of anesthesia?

1. Stage 1
2. Stage 2
3. Stage 3
4. Stage 4

2-45. In the immediate postoperative recovery phase, a patient's skin color may be indicative of all of the following EXCEPT

1. the patient's ability to recover from the anesthetic agent
2. postoperative hemorrhage
3. degradation of respiratory function
4. the development of shock

2-46. When permitted, postoperative patients should be encouraged to ambulate to improve the functions of which of the following physiologic systems?

1. Renal system
2. Digestive system
3. Cardiopulmonary system
4. All of the above

2-47. When caring for a young, otherwise healthy orthopedic patient requiring immobilization, the healthcare provider can anticipate all of the following EXCEPT

1. symptoms of emotional stress
2. frequent complaints of sore or aching pain
3. periods of dizziness associated with disorientation
4. a deterioration of skin tone and function

2-48. Unless otherwise directed by the physician, when one is applying a cast to an arm, the patient's wrists is generally in which of the following positions?

1. Extended about 10 degrees
2. In the neutral position
3. Flexed about 30 degrees
4. In any of the above; specific position is immaterial

2-49. A patient who has been fitted with a cast should be instructed to return to the medical treatment facility as soon as possible under which of the following circumstances?

1. The cast becomes soiled
2. The extremity affected by the cast is numb
3. The itching becomes unbearable
4. The cast gets wet

2-50. In the theory of death and dying, it is suggested that most people exhibit five stages. The stage where the terminal patient becomes concerned about the state of his or her affairs and family members is known as the stage of

1. denial
2. acceptance
3. bargaining
4. depression

2-51. Patient falls may be avoided by taking which of the following preventive measures?

1. Proper use of bed/gurney siderails
2. Keeping floors dry and uncluttered
3. Instructing patients on the proper use of walking aids (crutches, canes, etc.)
4. All of the above

2-52. Electrical and electronic equipment poses significant injury hazards. Of the following, which is the authorized means of reducing this hazard?

1. Repairing frayed cords with electrical tape to prevent shock
2. Informing the staff of defective equipment
3. Having medical repair perform electrical safety checks on all equipment
4. Using only two-prong, nongrounded electrical plugs

2-53. Skin contact burns can be caused by icebags or hypothermia blankets.

1. True
2. False

2-54. During a fire evacuation, which of the following procedures is NOT considered appropriate?

1. Immediately remove patients to safety
2. Close all windows and doors
3. Turn off all oxygen equipment not necessary to sustain life
4. Clear all possible exits

2-55. Because of its nonstatic qualities, the most acceptable material for use in the operating room is

1. wool
2. synthetic fabrics
3. untreated synthetic/cotton blends
4. 100% cotton

2-56. Documentation and analysis of all accidents and injuries is provided for which of the following reasons?

1. To forestall negligence or malpractice suits
2. To identify and punish the responsible person(s)
3. To identify and correct safety deficiencies
4. All of the above

2-57. Environmental hygiene is directed toward producing a healthy environment and includes such practices as maintaining unit cleanliness and

1. providing for adequate ventilation
2. limiting noise levels
3. proper disposal of soiled articles
4. all of the above

2-58. What source is considered the most frequent reservoir of infectious agents pathogenic to man?

1. Soil
2. Animals
3. Man
4. Plants

A. Corpsman's hands
B. Patient
C. Abdominal wound
D. Furuncle

TO ANSWER ITEMS 2-59 THROUGH 2-62, SELECT FROM THE ABOVE LIST THE SITUATIONAL ELEMENT THAT MOST CLOSELY MATCHES THE CHAIN OF INFECTION LINK GIVEN IN THE QUESTION AS IT APPLIES TO THE FOLLOWING SCENARIO.

A corpsman assists a medical officer to perform incision and drainage of a furuncle on a patient's leg. After the I&D procedure, the corpsman changes a postsurgical abdominal dressing on the same patient. A few days later, the surgical wound appears red and swollen and a culture reveals a significant staphylococcal infection.

2-59. Reservoir of the infectious agent.

1. A
2. B
3. C
4. D

2-60. Mode of transmission.

1. A
2. B
3. C
4. D

2-61. Portal of entry.

1. A
2. B
3. C
4. D

2-62. Susceptible host.

1. A
2. B
3. C
4. D

2-63. One essential practice of medical asepsis is washing your hands before and after changing a patient's dressing(s).

1. True
2. False

2-64. Minimizing the spread of an infectious disease can be accomplished by the use of isolation techniques that may include

1. limiting patient contact
2. establishing physical barriers
3. concurrent and terminal disinfection
4. all of the above

2-65. The sterilization method of choice for most articles used in surgery is

1. dry heat
2. steam under pressure
3. ethylene oxide gas
4. soaking in glutaraldehyde

2-66. Which of the following is an important step in using ethylene oxide gas for sterilization?

1. Providing protective masks to the operators
2. Providing an aeration period
3. Including surgical blades and sutures in the pack
4. Ensuring adequate steam pressure in the chamber

2-67. Sterilization of individual strands of suture is acceptable for which of the types listed?

1. All absorbable suture material
2. All nonabsorbable suture material
3. Both 1 and 2 above
4. Stainless steel sutures only

2-68. Which of the following rubber products may be resterilized after use?

1. Disposable surgeon's gloves
2. Latex surgical drains
3. Surgical suction tubing
4. Disposable urinary catheters

2-69. While adding items to a sterile field, you think you may have dragged the corner of a wrapper across part of the field. What should your course of action be?

1. Do nothing. Wrappers are considered clean
2. Tell the scrub technician so he or she can avoid that part of the field
3. Say nothing and continue with what you are doing
4. Dismantle the field and set up a new field

2-70. When setting up a minor surgery case, you notice that the instrument pack is outdated, What should you do?

1. Unwrap and inspect the pack and if usable, resterilize
2. Resterilize the pack without unwrapping
3. Return it to the shelf and let someone else take care of it
4. Use the pack; only the outside is not sterile

2-71. The surgical hand scrub is performed to

1. chemically sterilize the hands and forearms
2. remove all bacteria from the hands and forearms
3. reduce bacterial to a minimum on the hands and forearms
4. remove obvious dirt and grime from the hands and forearms

2-72. Transient and resident bacteria are easily removed from the skin by the friction created during the surgical hand scrub.

1. True
2. False

2-73. What is the preferred method of cleaning an operating room floor between operations?

1. Sponge and disinfectant
2. Broom
3. Mop
4. Wet vacuum

2-74. For effective sterilization of microbiological infectious waste, the temperature of the sterilizing steam must be maintained at _____ for at least _____, at _____ per square inch of gauge pressure.

1. 121° F, 45 minutes, 15 pounds
2. 121° C, 90 minutes, 10 pounds
3. 250° F, 90 minutes, 15 pounds
4. 250° C, 45 minutes, 10 pounds

ASSIGNMENT 3

Textbook Assignment: "First Aid Equipment, Supplies, Rescue and Transportation," chapter 3, pages 3-1 to 3-26; "Emergency Medical Care Procedures," chapter 4, pages 4-1 to 4-37.

3-1. In first aid situations, the ability to improvise is a highly desirable personal characteristic for a Corpsman.

1. True
2. False

3-2. A typical ambulance emergency bag does NOT contain which of the following items?

1. Toomey Syringe
2. Atropine
3. Airways
4. Trach Adaptor

A. Spica	E. Barton
B. Figure-eight	F. Triangular
C. Spiral reverse	G. Cravat
D. Four-tailed	

IN ANSWERING QUESTIONS 3-3 THROUGH 3-9, REFER TO THE LIST ABOVE, MATCHING THE TYPE OF BANDAGE WITH THE BODY PART TO WHICH IT IS MOST COMMONLY APPLIED.

3-3. Axilla.

1. A
2. B
3. F
4. G

3-4. Ear.

1. C
2. D
3. E
4. G

3-5. Head.

1. F
2. D
3. B
4. A

3-6. Elbow.

1. A or B
2. C or F
3. E
4. G

3-7. Ankle.

1. D
2. C
3. B
4. A

3-8. Calf.

1. A
2. B
3. C
4. D

3-9. Chin.

1. C or A
2. D or E
3. F or G
4. G only

3-10. The oxygen breathing apparatus (OBA) is a valuable adjunct in rescue operations for what reason?

1. It can be connected directly to an external air source
2. It provides positive pressure ventilation for the wearer
3. It neutralizes or filters toxic gasses
4. It generates its own oxygen

3-11. When, if ever, should an oxygen source be connected to an air line mask?

1. When entering a carbon dioxide filled compartment or void
2. When entering a compartment or void with fuel oil vapors
3. After the couplings have been cleaned of all oil or grease
4. Never

3-12. The standard gas mask provides effective protection against

1. carbon monoxide and carbon dioxide
2. low oxygen concentrations
3. both 1 and 2 above
4. chemical and biological warfare agents

3-13. When using a lifeline to raise an unconscious person from a compartment, the lifeline should be attached to the victim in what manner?

1. Around the waist and to the belt
2. Around the chest and under the arms
3. Around the hips and the wrists
4. Around the arms and the legs

IN ANSWERING QUESTIONS 3-14 AND 3-15, REFER TO THE FOLLOWING SCENARIO. DETERMINE THE PHASE OF RESCUE OPERATIONS, STAGE OF EXTRICATION, AND/OR RESCUE PROCEDURE INDICATED BY THE QUESTION.

Scenario

There has been a fire and explosion aboard ship and approximately 30 Sailors are trapped below deck. To get to the trapped Sailors, bulkheads are being breached and a large section of the damaged deck is being cut away. Firefighting teams are still fighting a large out of control fire near where you will be working. Passageway ventilation systems are working to remove dense, acrid smoke. Everyone is wearing OBA. Several steam lines have been ruptured and live electrical lines are sparking throughout the area. The DCO has determined that rescue attempts can be conducted.

3-14. Several Sailors have just been reached. Two are unconscious, badly burned, and pinned under an empty wall locker. One is dead.

1. First and third phases/first stage
2. Second phase/third stage
3. Third phase/third stage
4. First and last phases/first stage

3-15. A Sailor is injured and trapped under a fallen metal beam that is wedged tight by a buckled bulkhead. After unsuccessful efforts to move the beam, special cutting and lifting equipment is called for.

1. First phase
2. Second phase
3. Third phase
4. Last phase

3-16. Five burned Sailors walked out of a smoldering compartment. You are administering first aid and transporting them to sickbay.

1. First and second stages
2. Second stage only
3. First and third stages
4. Second and final stages

3-17. A Sailor whose clothes are on fire runs toward you. A small canvas tarp is nearby. Which of the following actions should you take?

1. Throw the victim to the deck and cover the victim head to foot with the tarp
2. Beat out the flames from the head downward to the feet
3. With the victim wrapped in the tarp, roll the victim over very quickly
4. With the victim standing, wrap the victim in the tarp and beat the flames out with your hands

3-18. The ventilators suddenly shut down and sparking has ceased. Rescuers are to enter a darkened compartment. The DCO is supervising the rescue effort. The rescuers should take which of the following precautions?

1. Check for oxygen, gasses, and explosive vapors
2. Wear a lifeline
3. Carry and wear only nonsparking equipment
4. Each of the above

3-19. Which of the stretchers listed below is considered most practical when lifting a casualty from an engine room?

1. Stokes stretcher
2. Army litter
3. Miller Board
4. Improvised blanket and line stretcher

3-20. Which of the following pieces of rescue equipment should be used to carry a person with a suspected back or neck injury?

1. Army litter
2. Spineboard
3. Either 1 or 2, depending on the circumstances
4. Improvised stretcher

3-21. Probably the easiest way to carry an unconscious person is called the

1. fireman’s carry
2. tied-hands crawl
3. blanket drag
4. chair carry

3-22. The tied-hands crawl is the most useful when the victim

1. is too heavy to lift
2. must be move long distances
3. is seriously injured
4. must be moved under low structures

3-23. What is the most distinct advantage of the chair carry?

1. The ease of transporting heavy casualties
2. The ease of negotiating stairs
3. Its safety in transporting neck or back injuries
4. Its safety in transporting pelvic injuries

3-24. Which of the following is NOT a factor the Corpsman considers in deciding whether or not to recommend using a helicopter for evacuating patients?

1. The victim's overall condition
2. The tactical situation
3. The affect of pressure changes in flight
4. Cost

3-25. The primary purposes of first aid include all the following EXCEPT to

1. provide definitive medical treatment
2. preserve resistance and vitality
3. save life
4. prevent further injury

3-26. At what point should the preliminary examination of a casualty be done?

1. In the hospital
2. In the ambulance
3. After making the victim comfortable
4. Before moving the casualty

3-27. In a combat scenario, a casualty sustaining numerous superficial shrapnel wounds should be triaged into which of the following groups?

1. Class I
2. Class II
3. Class III
4. Class IV

3-28. In a trauma related incident where a patient has multiple injuries, you should treat which of the following first?

1. Fractures
2. Most obvious injury
3. Most lift-threatening condition
4. Most painful condition

3-29. For warfare in the future where helicopter evacuation may not be viable, personnel in which of the following treatment categories will receive evacuation triage?

1. I and II
2. II and III
3. I and IV
4. III and IV

3-30. What is the basic concept of triage?

1. To sort casualties into treatment categories for transportation
2. To prioritize treatment categories for surgery
3. To save the maximum number of personnel possible
4. To assist medical personnel in saving time and supplies

3-31. What is the purpose of field assessments?

1. To detect and treat life threatening conditions for immediate care
2. To conduct a subjective interview and an objective examination
3. Both a and b, above
4. To identify needed equipment and supplies

3-32. At an emergency scene, you should immediately take which of the following actions?

1. Inform the person in charge that medical personnel have arrived
2. Ensure that someone begins triage, if needed
3. Review patient emergency assessment procedures
4. Make sure the scene is safe for self and patients

3-33. Which of the following actions are a main focus of conducting a primary survey?

1. Making a status decision and formulating priorities
2. Formulating a treatment plan and making a status decision
3. Formulating priorities and making a transport decision
4. Making a status decision and a transport decision

3-34. At the emergency scene, you should delay giving emergency care to life-threatening problems until you have conducted a thorough field assessment of the patient and the environment.

1. True
2. False

3-35. At an emergency scene, which of the following is a purpose for conducting a subjective interview?

1. To gather information from relatives or bystanders
2. To gather information from the patient
3. To reduce patient fear and promote cooperation
4. All of the above

3-36. What pupillary sign is an indication of a central nervous system disorder?

1. Unequal pupils
2. Constricted pupils
3. Unresponsive pupils
4. Dull and unfocused pupils

3-37. On examination of the chest, you detect distinct "crackling" sounds. What condition should you immediately suspect?

1. Flail chest
2. An obstruction
3. A punctured lung
4. An illness involving the respiratory system

3-38. An absent pedal pulse could be caused by all of the following conditions EXCEPT

1. a broken or dislocated bone
2. delayed capillary refill
3. spints or bandages being placed too tightly
4. a pinched or severed major artery

3-39. Evaluation of diagnostic vital signs includes all of the following EXCEPT

1. blood pressure
2. rhythm/regularity of pulse
3. profuse perspiration
4. level of consciousness

3-40. What term identifies the pressure of the pulse wave as it expands the artery?

1. Pulse rhythm
2. Pulse character
3. Tachycardia
4. Pulse force

3-41. What condition or observation may indicate a patient is going into shock?

1. Systolic pressure below 90 mm Hg
2. Hypertension
3. Erratic breathing
4. A sudden rise in blood pressure

3-42. What is the universal distress signal indicating an obstructed airway?

1. Spasmodic coughing
2. Clutching at the throat
3. Hyperventilation
4. Cherry-red coloration of the skin or nail beds

3-43. To open a partially obstructed airway of a victim with a cervical spine injury, which of the following is considered the safest method?

1. Jaw thrust
2. Head tilt
3. Abdominal thrust
4. Chest thrust

3-44. Symptoms of foreign-body airway obstruction include which of the following?

1. Victim stops breathing
2. Victim starts turning blue
3. Victim loses consciousness for no apparent reason
4. All the above

3-45. Artificial ventilation is indicated in which of the following situations?

1. To assist ventilation in partial airway obstruction
2. In carbon monoxide poisoning
3. In lack of respiratory effort
4. In cyanosis

3-46. Dilated pupils in a patient receiving artificial ventilation is an indication of

1. overventilation
2. adequate ventilation
3. insufficient ventilation
4. hypovolemia

3-47. Artificial ventilation of a patient with a badly displaced mandibular fracture is best given

1. by mouth-to-mouth ventilation
2. by mouth-to-nose ventilation
3. with an oxygen mask
4. by the back-pressure arm-lift method

3-48. The major problem you should anticipate when relieving gastric distention is which of the following?

1. Reduced lung volume
2. Internal bleeding
3. Vomiting
4. Cardiac arrest

3-49. When ventilating an adult using the mouth-to-mask method, how do you best obtain an airtight seal?

1. By fitting the apex of the mask over the bridge of the nose
2. By fitting the apex of the mask over the chin
3. By compressing the collar of an adult mask
4. By attaching an oxygen line

3-50. What is the first step in preparing to perform CPR?

1. Check vital signs
2. Determine unconsciousness
3. Locate the sternum
4. Establish a patent airway

3-51. The best place to find the pulse of an unconscious patient is in which of the following arteries?

1. Pulmonary
2. Carotid
3. Apical
4. Radial

3-52. A fracture of the xiphoid tip of the sternum during CPR may cause significant damage to the

1. rib cage
2. lungs
3. spleen
4. liver

3-53. In one-rescuer CPR, the proper compression to ventilation ratio is

1. 15 to 2
2. 2 to 15
3. 1 to 5
4. 5 to 1

3-54. When properly performing CPR on an adult, the depth of compressions is

1. 0.5 to 1.0 inches
2. 1.0 to 1.5 inches
3. 1.5 to 2.0 inches
4. 1.5 to 2.5 inches

3-55. Which of the following is a physiologic result of shock?

1. Increased cardiac output
2. Hypoxia
3. Hyperperfusion of organs
4. Increased urine output

3-56. The signs and symptoms of shock include

1. hot and dry skin, dilated pupils, weak and rapid pulse
2. hot and dry skin, constricted pupils, strong and rapid pulse
3. cool and moist skin, dilated pupils, weak and rapid pulse
4. cool and moist skin, constricted pupils, strong and rapid pulse

3-57. Oligemic shock is another name for

1. cardiogenic shock
2. neurogenic shock
3. septic shock
4. hypovolemic shock

3-58. An oral electrolyte solution can be made from a liter of water and what other components?

1. 1.0 teaspoon of sugar + 0.5 teaspoon of baking powder
2. 0.5 teaspoon sugar + 1.0 teaspoon baking powder
3. 1.0 teaspoon salt + 0.5 teaspoon baking soda
4. 0.5 teaspoon salt + 1.0 teaspoon baking soda

3-59. Treatment for shock may include all of the following EXCEPT

1. opening and maintaining an airway
2. oxygen therapy
3. intravenous fluid therapy
4. keeping the victim cool

3-60. Which of the following is a contraindication for the use of Medical Anti-Shock Trousers (MAST)?

1. Pelvic fracture
2. Pulmonary edema
3. Fractured femur
4. Depressed skull fracture

3-61. When should Medical Anti-Shock Trousers (MAST) be removed from a patient?

1. When blood pressure reaches 100 mm Hg systolic
2. When intravenous fluids are started
3. In a medical treatment facility under a medical officer's supervision only
4. When the patient is in the ambulance and stabilized

3-62. Which of the following is/are a limitation(s) on the use of the bag-valve mask ventilator?

1. Should be used only by experienced individuals
2. Is hard to clean and reassemble
3. Seal at the face is hard to maintain
4. Each of the above

3-63. Which of the following is/are an advantage(s) of using the pocket face mask as opposed to the bag-valve mask?

1. Acts as a barrier device
2. Provides greater air volume
3. Achieves higher oxygen concentrations
4. 1 and 2 only

3-64. Cricothyroidotomy is the process or technique of

1. hyperextending the neck
2. creating an opening to the trachea
3. suctioning the trachea
4. inserting an esophageal obturator airway

3-65. An avulsion injury is defined as a

1. traumatic removal of a limb
2. piercing injury that closes over
3. clean surgical cut
4. traumatic removal of tissue

3-66. In most situations, what is the best and first method to control hemorrhage?

1. Direct pressure
2. Pressure point
3. Elevation
4. Tourniquet

3-67. The following information about pressure points is correct EXCEPT

1. Pressure points are ideal when bleeding must be controlled for extended periods of time
2. Pressure is applied to the pressure point nearest to but proximal to the wound
3. Use of pressure point and elevation can slow hemorrhage until a tourniquet can be applied
4. Use of pressure point and elevation can slow hemorrhage until a direct pressure dressing can be applied

3-68. If one is applying a tourniquet to a traumatic amputation of the hand, where should the tourniquet be applied?

1. Just above the wrist
2. Just below the elbow
3. Just above the elbow
4. Across the biceps at the thickest part

3-69. When a tourniquet is used to control bleeding, which of the following procedures should be followed?

1. Use narrow material so the band bites into the skin
2. Loosen the tourniquet every 15 minutes to allow blood flow
3. Tighten it only enough to stop arterial bleeding
4. Ensure both the wound and tourniquet are covered by the dressings

3-70. Production of bright red blood during coughing is called

1. hematemesis
2. hemoptysis
3. hematochezia
4. epistaxis

3-71. In treating patients with suspected internal injuries, prime consideration should be given to all of the following EXCEPT

1. oral fluids in all cases
2. treating for shock
3. supplemental oxygen therapy
4. transporting to a medical facility as soon as possible

3-72. To grow and multiply, anaerobic bacteria require

1. hemolytic action
2. increased levels of oxygen
3. normal levels of oxygen
4. absence of oxygen

3-73. The body's physiologic response to an irritation or inflammation is characterized by which, if any, of the following symptoms?

1. Redness, warmth, and swelling
2. Redness, coolness, and discomfort
3. Blanching, coolness, and swelling
4. None of the above

3-74. A single pus-filled cavity in the true skin of the nape of the neck would be classified as a

1. carbuncle
2. furuncle
3. lymph node
4. phagocyte

3-75. Which of the following is proper action to take if a metal splinter is embedded in the left eye?

1. Remove the foreign body with sterile forceps
2. Remove the foreign body with a dry cotton swab
3. Patch the left eye and transport to a medical treatment facility
4. Patch both eyes and transport to a medical treatment facility

ASSIGNMENT 4

Textbook Assignment: “Emergency Medical Care Procedures,” chapter 4, pages 4-38 to 4-71; "Poisoning, Drug Abuse, and Hazardous Material Exposure," chapter 5, pages 5-1 to 5-26.

4-1. Appropriate treatment for a sucking chest wound includes all of the following EXCEPT

1. giving oral fluids
2. administering oxygen therapy
3. treating for shock
4. placing the victim on the injured side

4-2. Of the following, which is an appropriate treatment for a protruding abdominal wound?

1. Giving oral fluids
2. Replacing the intestines in the abdominal cavity
3. Applying a dry compress
4. Treating for shock

4-3. Which of the following statements is true about the viral disease known as rabies?

1. It is found only in household pets
2. It is usually fatal in man
3. It is treatable with standard antibiotics
4. It is transmittable only through animal bites

4-4. What procedure should be followed with respect to an animal bite?

1. Cauterize to prevent infection
2. Close with nylon sutures
3. Clean with standard antiseptics
4. Clean with soap and water

4-5. Immediate suturing of a wound is contraindicated if the wound has which of the following characteristics?

1. It is a puncture wound
2. There is edema and/or discharge
3. It is a deep or gaping wound
4. Any of the above

4-6. An alternate name for an absorbable suture material is

1. dermalon
2. gut
3. sick
4. nylon

4-7. In administering anesthesia, the preferred method is to inject the agent directly into a vein or artery located within 1/2 inch of a wound.

1. True
2. False

4-8. Which of the following is/are a recommended step(s) in performing a delayed wound closure?

1. Use dressing forceps while suturing
2. Convert jagged edges to smooth before suturing
3 For best cosmetic effect, place sutures further apart
4. 1 and 3 only

4-9. Of the following statements concerning the appropriate length for a splint, which is accurate?

1. A splint should be long enough to reach from the fracture to the joint below the fracture
2. A splint should be long enough to reach from the fracture to the joint above and below the fracture
3. A splint should be long enough to reach past the joints above and below the fracture
4. The length of a splint is immaterial

4-10. After applying a splint to a fractured forearm, you notice the fingers develop a bluish tinge and are cool to touch. What should you do?

1. Elevate the arm
2. Apply warm compresses
3. Loosen the splint
4. Remove the splint

4-11. What is the primary reason for splinting fractures?

1. To prevent further injury
2. To control hemorrhage
3. To reduce swelling
4. To increase blood circulation

4-12. To fit well and provide adequate immobilization, a splint must have which of the attributes listed?

1. Be well padded at body contact areas
2. Be twice as wide as the injured limb
3. Be strong, rigid, and applied tightly
4. Be applied by two people

4-13. The proper first aid treatment for a fracture of the humerus near the shoulder is to

1. apply a splint to the outside and one to the inside of the upper arm, bandage the arm to the body and support the forearm in a sling
2. apply a splint to the outside of the arm, bandage the arm to the body, and support the forearm in a sling
3. place a pad or folded towel in the armpit, bandage the arm to the body, and support the forearm in a sling
4. splint the arm in the position you find it and bandage the arm securely to the body

4-14. When applying a splint to immobilize a fractured patella, where should you place extra padding?

1. Around the knee and under the buttocks
2. Under the knee and above the heel
3. Under the knee and under the thigh
4. Around the knee and under the calf

4-15. What is the most important consideration in treating a mandibular fracture?

1. Immediate immobilization
2. Ensuring a patent airway
3. Realignment of the jaw
4. Control of pain

4-16. Of the following actions, which is of prime importance when dealing with a head injury?

1. Determine if the skull is fractured
2. Assume cervical spine damage
3. Administer pain medication
4. Remove impaled objects

4-17. How should a suspected spinal fracture victim be transported?

1. Ensure immobilization on a rigid backboard
2. Place a pillow or adequate padding under the neck
3. Transport in the shock position
4. Do all of the above

4-18. Deformity at a joint, coupled with pain, discoloration, and immobility of and around the joint, is characteristic of which of the following disorders?

1. Dislocation
2. Simple fracture
3. Compound fracture
4. Displaced fracture

4-19. Of those listed below, which joints are the most frequently dislocated?

1. Sternal ribs, finger, and jaw
2. Knee, hip, and elbow
3. Knee, hip, shoulder, and jaw
4. hip, shoulder, fingers and jaw

4-20. To reduce a dislocated jaw, you should do which of the following?

1. Pull the chin forward and down
2. Have a victim open his or her mouth several times to affect reduction
3. Grasp behind the front teeth and pull forward
4. Press down behind the last molars and lift the chin

4-21. In general, sprains and strains are injuries to

1. joints and muscles
2. nerves and blood vessels
3. bones and blood vessels
4. bones and nerves

4-22. The treatment for strains and sprains includes all of the following EXCEPT

1. radiographic evaluation
2. immediate application of moist heat
3. immobilization and rest
4. elevation

A. 18%
B. 27%
C. 31.5%
D. 36%

IN ANSWERING QUESTIONS 4-23 THROUGH 4-25, USE THE "RULE OF NINES" AND FIGURE 4-48 IN THE TEXT TO DETERMINE THE EXTENT OF INJURY BY BODY SURFACE AREA, AND SELECT THE MOST APPROPRIATE ANSWER FROM THE LIST ABOVE BASED ON THE INFORMATION GIVEN IN THE QUESTION.

4-23. A steam burn to the face, chest, abdomen, and both arms.

1. A
2. B
3. C
4. D

4-24. A sunburn to the back of both legs, both arms, and the back.

1. A
2. B
3. C
4. D

4-25. A thermal burn to the left arm and front of the left leg.

1. A
2. B
3. C
4. D

4-26. First-aid treatment for extensive second degree burns should include which of the following treatments?

1. Anesthetic ointments and transport only
2. Debridement of the wound and dry dressings
3. Intravenous infusion and analgesia
4. Anesthetic ointments and analgesia

4-27. Morphine is an acceptable analgesic in patients with which of the following symptoms?

1. Head injuries
2. Profound respiratory distress
3. Advanced shock
4. Painful skin burns

4-28. The usual treatment for chemical burns is to flush with copious amounts of water. The two exceptions to this rule are in the case of which of the following chemicals?

1. Phosphoric acid and lye
2. White phosphorus and carbolic acid
3. Dry lime and carbolic acid
4. Sulfuric acid and carbolic acid

4-29. A dilute solution of which of the listed substances will neutralize alkali burns to the skin?

1. Alcohol
2. Phenol
3. Vinegar
4. Baking soda

4-30. First aid treatment of white phosphorus burns with partially embedded particles includes

1. wet dressings of copper sulfate
2. superficial debridement while flushing with water
3. neutralization with a dilute vinegar solution
4. neutralization with a dilute solution of baking soda

4-31. Signs and symptoms of heat exhaustion include a weak rapid pulse, nausea, headache, and

1. constricted pupils
2. greatly increased body temperature
3. cool, moist, and clammy skin
4. flushed, red face

4-32. The incidence of heat exposure injuries can be minimized by all of the following EXCEPT

1. education of personnel
2. environmental monitoring
3. daily salt tablets
4. maintenance of exhaust blowers and vents

4-33. What is the most effective method of rewarming a victim of hypothermia?

1. “Buddy warming”
2. Covering the victim with blankets or a sleeping bag
3. Hot water bottles at the neck, armpits, groin, and the chest
4. Immersion in a tub of warm water

4-34. An antiseptic emollient cream should be applied to which, if any, of the following cold injuries?

1. Chilblain
2. Immersion foot
3. All frostbites
4. None of the above. Cold injuries should be kept dry

4-35. For which, if any, of the following reasons should a frostbite injury remain frozen?

1. To minimize the severity of pain
2. Where there is a possibility of refreezing
3. To prevent shock
4. Never. Frostbite should always be rewarmed as quickly as possible

4-36. Which of the following is/are a recommended step(s) in treating deep frostbite?

1. Slowly rewarm frozen areas
2. Break blisters to speed healing
3. Gently rub injured areas to promote blood circulation
4. Comfort victim with hot tea or coffee

4-37. A Corpsman may administer morphine to which of the following patients?

1. With a head injury
2. In shock
3. With burns from inhaled chemicals
4. Hemorrhaging

4-38. Reversal of a syncopal episode can often be accomplished by what action?

1. Sitting with the head between the knees
2. Sitting upright
3. Lying down with the head and shoulders slightly elevated
4. Lying down in the reverse shock position

4-39. Which of the following methods is the quickest and easiest way of determining if an unconscious person is a diabetic?

1. Check for signs of ketoacidosis
2. Determine blood sugar levels
3. Look for signs of insulin use
4. Search for a Medic Alert tag, bracelet, or card

4-40. Of the following actions, which is the immediate treatment for insulin shock?

1. Administer an injection of insulin
2. Place sugar under the victim's tongue
3. Start an intravenous solution of normal saline
4. Administer oxygen

4-41. In addition to monitoring vital signs and making the patient comfortable, treatment for a stroke includes which of the following procedures?

1. Administering analgesics to relieve pain
2. Giving oxygen therapy
3. Giving a rapid infusion of a 5 percent dextrose solution
4. Giving a 0.3cc injection of epinephrine for vasoconstriction

4-42. Initial first aid treatment for an attack of angina pectoris includes reassurance, monitoring of vital signs, and

1. initiating CPR
2. giving sublingual nitroglycerin
3. advise the patient to return to duty when pain abates
4. giving a 0.3cc of epinephrine IM to increase heart rate

4-43. First aid treatment for acute myocardial infarction without cardiac arrest includes all of the following EXCEPT

1. giving oxygen therapy
2. monitoring vital signs
3. starting an intravenous infusion of only normal saline
4. transporting to a medical treatment facility

4-44. Proper first aid treatment for a patient suffering a convulsive seizure episode consists of which of the following procedures?

1. Protecting the victim from injury
2. Immediately starting CPR
3. Muscle massage during periods of rigidity
4. Injecting 75 to 100 mg of Demerol IM to effect relaxation

4-45. The most common psychiatric emergency is probably the suicide gesture or attempt. Basic treatment consists of all of the following EXCEPT

1. presenting a calm and understanding presence
2. leaving the victim alone to reflect on his or her actions
3. assuming all suicide threats are real
4. treating self-inflicted wounds as any other wound

4-46. When, during childbirth, the baby's head presents, why should you apply gentle pressure to the head?

1. To prevent an explosive delivery
2. To avoid compressing the umbilical cord
3. To compress the cord to stimulate the infant's vital function
4. To allow you time to suction the mouth and nose of the infant

4-47. When should the infant's mouth and nose be suctioned?

1. If spontaneous respirations do not occur
2. When the chin clears the vaginal canal
3. After the child has completely emerged
4. After clamping and cutting the umbilical cord

4-48. Emergency first aid treatment for a prolapsed cord during childbirth includes all of the following EXCEPT

1. decompressing the cord as much as possible
2. giving oxygen therapy
3. placing the mother in the shock position
4. clamping and cutting the umbilical cord when it presents

4-49. If a prolapsed cord occurs, which of the following actions should you take?

1. Give the mother oxygen
2. Place the mother in an extreme shock position
3. Get medical assistance
4. Each of the above

4-50. Poisoning is defined as contact with or exposure to a toxic substance.

1. True
2. False

4-51. A patient presents with dilated pupils, fever, dry skin, urinary retention, decreased bowel sounds, and increased heart rate. What toxidrome does this set of symptoms suggest?

1. Narcotic
2. Anticholinergic
3. Withdrawal
4. Non-syndrome syndrome

4-52. Which of the following is the method of choice for a Corpsman to use to induce vomiting?

1. 15-30 cc of syrup of Ipecac
2. 2 teaspoonfuls of dry mustard in water
3. 2 teaspoonfuls of an active charcoal slurry
4. To tickle the back of the victim's throat

4-53. Of the following, which is the most likely area of damage in a victim who has ingested a strong alkali?

1. Stomach
2. Esophagus
3. Liver
4. Colon

4-54. Treatment of a victim who ingested a strong acid includes intravenous infusion therapy and

1. inducing vomiting
2. diluting the stomach contents with water
3. neutralizing the stomach contents with a weak sodium bicarbonate solution
4. gastric lavage

4-55. Which of the following substances, upon ingestion, poses a threat of chemical or aspiration pneumonia?

1. Acid compounds
2. Alkali compounds
3. Petroleum distillates
4. Any of the above

4-56. If you are unable to reach the poison control center or a physician for specific instructions, how should you treat a victim who has ingested turpentine?

1. Induce vomiting and observe
2. Give 1 to 2 ounces of vegetable oil orally
3. Neutralize the poison with vinegar and water
4. Give 1 to 2 tablespoonfuls of milk of magnesia

4-57. Of the following, which, if any, is considered the most common agent in inhalation poisoning?

1. Carbon dioxide
2. Carbon monoxide
3. Freon
4. None of the above

4-58. Treatment for an inhalation poisoning victim includes all of the following EXCEPT

1. removal from the contaminated atmosphere
2. administration of oxygen
3. administration of stimulants
4. treatment for shock

4-59. A patient presents exhibiting signs of anaphylactic reaction to a bee or wasp sting. Of the following, which is NOT considered appropriate treatment?

1. Removal of patient's jewelry
2. Subcutaneous injection of epinephrine
3. Warm packs over the sting site
4. Removal of the stinger by scraping with a dull knife

4-60. The victim of a scorpion sting may safely be given any of the following pharmaceuticals EXCEPT

1. Demerol or morphine
2. Calcium gluconate
3. Valium
4. All the above are acceptable

4-61. Symptoms of a black widow spider bite may include severe pain, dyspnea, and

1. obvious swelling
2. abdominal rigidity
3. a necrotizing lesion
4. fever and chills

4-62. Excision and corticosterod therapy is early treatment for the bite of which of the following?

1. Scorpions
2. Black widow spiders
3. Brown recluse spiders
4. Snakes

4-63. What is the key identifying feature of the coral snake that distinguishes it from other snakes with similar markings?

1. The yellow band is always next to the red band
2. The red band is always next to the black band
3. It has a distinctive bite pattern
4. It has deep pits below the eyes

4-64. On patrol, a member of your unit receives a rattlesnake bite just below the elbow. What first aid treatment should you perform?

1. Place a tourniquet 1 inch proximal to the bite site
2. Place a constricting band 2 inches proximal to the bite site
3. Place a constricting band 2 inches distal to the bite site below the elbow
4. Both 2 and 3 above

4-65. Jellyfish nematocysts can be neutralized with which of the following substances?

1. Formalin
2. Dilute ammonia
3. Vinegar
4. Any of the above

4-66. The most widely abused drug(s) is/are

1. ethanol
2. opiates
3. barbiturates
4. amphetamines

4-67. Signs and symptoms of stimulant intoxication include all of the following EXCEPT

1. hyperactivity
2. increased appetite
3. dilated pupils
4. increased body temperature

4-68. A person may display which of the following symptom(s) after using a hallucinogenic drug?

1. Pin-pointed pupils
2. Decreased heartbeat
3. Flushed face
4. Both 2 and 3 above

4-69. Marijuana falls into which of the following categories of drugs?

1. Barbiturate
2. Physically addicting
3. Hallucinogen
4. Harmless

4-70. Persons who regularly abuse inhalants risk which of the following injuries?

1. Severe brain damage
2. Damaged internal organs
3. Death
4. Each of the above

4-71. In caring for drug-intoxicated persons, the Corpsman should perform what actions as his/her first priority?

1. Check for an adequate airway
2. Keep the victim awake
3. Induce vomiting if the victim is awake
4. Transport to a medical facility

Level	Health Hazard
0	Little or none
1 and 2	Slight
3	Extreme
4	Deadly

IN ANSWERING QUESTIONS 4-72 AND 4-73, REFER TO THE TABLE ABOVE. MATCH THE TOXICITY LEVEL WITH THE PROTECTION LEVEL REQUIRED, AS DESCRIBED IN THE QUESTION.

4-72. Full body protection and sealed equipment.

1. 0
2. 1 and 2
3. 3 and 4
4. 4 only

4-73. Protection level C.

1. 0
2. 1 and 2
3. 3
4. 4

4-74. The Corpsman should give special attention to which of the following requirements while working in the command sub-zone?

1. Work in low geographic areas to avoid toxic fumes
2. Decontaminate victims and equipment outside of the hazard zone
3. Stay upwind and upgrade of the incident site
4. Collect a sample of the hazardous material for later examination

4-75. What patient decontamination procedure is the most frequently used?

1. Absorption
2. Chemical wash
3. Dilution
4. Disposal and isolation

ASSIGNMENT 5

Textbook Assignment: "Pharmacy and Toxicology," chapter 6, pages 6-1 to 6-26; "Common Pharmaceuticals," appendix IV, pages AIV-1 to AIV-18.

5-1. The actual title of the "blue bible" of pharmacology is

1. the Physicians' Desk Reference
2. The United States Pharmacopoeia and National Formulary (USP-NF)
3. the Pharmacological Basis of Therapeutics
4. Remington's Pharmaceutical Sciences

5-2. The most common factor influencing the amount of drug given to a patient is

1. weight
2. gender
3. age
4. route of administration

5-3. What would be the proper dose in milliliters of ampicillin for an 8-year old child if the adult dose is 15 ml?

1. 2
2. 6
3. 9
4. 15

5-4. What is the name of the rule used to determine appropriate dosage of medication based on a child's weight?

1. Young's Rule
2. Clark's Rule
3. Rule of Nines
4. Minimum Rule

5-5. Determine the appropriate dose in milligrams of medication for a child weighing 30 pounds if the average dose for an adult dose is 600 mg.

1. 50
2. 100
3. 120
4. 150

5-6. In computing the amount of drug to be given to an underweight female, what adjustments to the normal dosage would ordinarily be made?

1. Increase the dosage because of her weight and further increase because of her sex
2. Increase of dosage because of her weight but decrease because of her sex
3. Decrease of dosage because of her sex and further decrease because of her weight
4. Decrease of dosage because of her sex but an increase because of her weight

5-7. A drug given repeatedly to a patient often has to be increased in dosage to maintain the desired effect. The need for a larger dose is probably caused by

1. an acquired tolerance from habitual use
2. an abnormal sensitivity
3. a cumulative effect from habitual use
4. an individual idiosyncrasy

5-8. The most common method of administering medications is

1. orally
2. parentally
3. topically
4. intravenously

5-9. Which of the following is an example of a drug injected intradermally?

1. Insulin
2. Procaine hydrocloride
3. Purified protein derivative
4. 2 or 3 above

5-10. Which of the following is NOT a way in which drugs are grouped?

1. By chemical characteristics
2. By their brand names
3. By their source
4. By their action on the body

5-11. Which of the following is a characteristic side effect of antihistamines?

1. Nausea
2. Drowsiness
3. Uricaria
4. Tinnitis

5-12. Agents that inhibit the growth of microorganisms without necessarily killing them are known as

1. germicides
2. fungicides
3. antiseptics
4. astringents

5-13. The drug group most often used to treat dyspepsia is

1. emollients
2. astringents
3. antacids
4. adsorbents

5-14. Patients sensitive to penicillin may also exhibit sensitivity to cephalosporins.

1. True
2. False

5-15. Milk or milk products may interfere with the absorption of which of the following drugs?

1. Cephalexin (Keflex)
2. Tetracycline hydrochloride
3. Streptomycin sulfate
4. Erthromycin

5-16. Macrolides are effective against which of the following organisms?

1. Gram-positive cocci
2. Dermatophytes
3. Parasites
4. Gram-negative

5-17. Supplemental potassium may be required with which of the following categories of drugs?

1. Anti-inflammatories
2. Antidiahrreals
3. Antipyretics
4. Diuretics

5-18. The two most important opium alkaloids are morphine and

1. paraldehyde
2. codeine
3. meperidine
4. cocaine

5-19. Water-soluable vitamins are not excreted in the urine and are stored in the body in moderate amounts.

1. True
2. False

5-20. As used in the Navy, what is the primary purpose of biological agents?

1. Diagnosis
2. Resuscitation
3. Immunization
4. Pest control

5-21. Which of the following organizations is responsible for the licensing of biological agents?

1. Secretary of the Navy
2. Public Health Service
3. American Medical Association
4. Secretary of the Treasury

5-22. With which of the following is the yellow fever vaccine reconstituted?

1. Sterile water, USP
2. Triple distilled water, USP
3. Sterile, 5% dextrose in water, USP
4. Sterile sodium chloride injection, USP

5-23. Which of the following vaccines should not be administered to individuals who are sensitive to egg products?

1. Smallpox
2. Plague
3. Influenza
4. Anthrax

5-24. A poison that is introduced into the body in one location and affects the body in another location is displaying what effect?

1. Local
2. Remote
3. Cumulative
4. Inhibiting

5-25. The correct abbreviations for the metric system of primary units of measure for weight, volume, and linear dimensions are

1. gr, 1, cm
2. gr, ml, m
3. g, 1, m
4. g, l, cm

5-26. Which of the following is equal to one one-hundredth of a liter?

1. Dekaliter
2. Deciliter
3. Centiliter
4. Milliliter

5-27. The basic unit of weight in the apothecary system is the

1. gram
2. grain
3. dram
4. milliliter

5-28. A prescription requires 2 ounces of a substance stocked in liters. How many milliliters are required to fill the prescription?

1. 0.030
2. 0.060
3. 30.0
4. 60.0

5-29. A compound requires 40 grains of a substance stocked in kilograms. How many grams are required to prepare the compound?

1. 0.62
2. 2.6
3. 4.2
4. 2,400.0

5-30. You have 360 grams of a compound. If 54 grams of the compound is silver nitrite, what is the percentage of silver nitrite?

1. 12.5
2. 15.0
3. 17.5
4. 20.0

INFORMATION FOR ITEMS 5-31 AND 5-32 IS AS FOLLOWS: ASSUME THAT THE FOLLOWING IS THE CORRECT FORMULA FOR COMPOUNDING 1,000 ML OF POTASSIUM ARSENATE SOLUTION.

Arsenic trioxide…….. 12.8 g
Potassium bicarbonate…… 9.8 g
Alcohol……... 40.0 ml
Distilled water, q.s. to make 1000….. 0 ml

5-31. You receive a prescription for 285 ml of the preceding formula. How many milliliters of alcohol should you use in compounding the prescription?

1. 9.6
2. 11.4
3. 13.6
4. 15.9

5-32. If you receive a prescription for 1,800 ml of the preceding formula, how many grams of arsenic trioxide will you use?

1. 7.80
2. 19.40
3. 23.04
4. 25.60

5-33. A patient is to receive 1.8 million units of oxycillin IM. Using quantity sufficient sterile water to reconstitute a vial of 2.4 million units to 2 ml, how much of the solution should the patient receive?

1. 1.0 ml
2. 1.25 ml
3. 1.50 ml
4. 1.75 ml

5-34. A patient is to receive a 3/4 gr dose of Phenobarbital. If you dissolve two 1/2 gr tablets of Phenobarbital in 30 ml of water, how much of the solution should the patient receive?

1. 15.0 ml
2. 17.5 ml
3. 20.0 ml
4. 22.5 ml

5-35. How many grams of sodium chloride are required to prepare 1 liter of a 1:5000 solution?

1. 0.2
2. 0.4
3. 2.0
4. 4.0

5-36. Of the following types of pharmaceutical preparations, which incorporates finely powdered medicinal substances into a fatty base?

1. Lotion
2. Suspension
3. Ointment
4. Elixir

5-37. All pharmacies that dispense medications are required to have what Class balance?

1. A
2. B
3. C
4. D

5-38. What drug incompatibility occurs when agents antagonistic to one another are prescribed together?

1. Therapeutic
2. Physical
3. Chemical
4. 1 and 3 above

5-39. Eutexia is an example of what type of drug incompatibility manifestation?

1. Chemical
2. Physical
3. Therapeutic
4. 2 and 3 above

5-40. A properly administered drug dosage that has an unintended and noxious effect on the patient is the definition of which of the following terms?

1. Contraindication
2. Drug interaction
3. Adverse reaction
4. Therapeutic incompatibility

5-41. In the prescription block of DD 1289, what part lists the names and quantities of the ingredients prescribed?

1. Superscription
2. Inscription
3. Subscription
4. Signa

5-42. If, in the course of filling a prescription, you feel that there may be a discrepancy or incompatibility, you should take which of the following actions?

1. Let the patient know that you discovered an error and will be checking with the prescriber before filling the prescription
2. Consult the prescriber to verify the prescription
3. Both 1 and 2
4. Fill the prescription as written

5-43. Which of the following is a schedule III drug?

1. Marijuana
2. An antitussive
3. Amphetamines
4. Nonbarbiturate sedative

5-44. What schedule of drug can never be ordered with refills?

1. II
2. III
3. IV
4. V

5-45. Which of the following is a bronchomucotropic agent?

1. Petrolatum
2. Guaifenesin
3. Benzoate
4. Phenol

5-46. Aluminum acetate, an astringent, is often used to treat which of the following conditions listed below?

1. Athlete’s foot
2. External otitis
3. Poison ivy
4. All of the above

5-47. In conjunction with antacids, which of the following is used to treat duodenal ulcers?

1. Dimenhydrinate
2. Diphenhydramine hydrochloride
3. Ranitidine
4. Pseudoephedrine hydrochloride

5-48. Which of the following drugs is administered to control motion sickness?

1. Cimetidine
2. Meclizine hydrochloride
3. Chlorpheniramine maleate
4. Dephenhydramine hydrochloride

5-49. In addition to being an antacid, magnesium hydroxide may be used as a/an

1. emollient
2. laxative
3. demulcent
4. astringent

5-50. Which of the following is an ideal emollient to protect sensitive skin from the sun?

1. Theobroma oil
2. Lanolin
3. Zinc oxide ointment
4. Aluminum acetate

5-51. The standard by which all other antiseptics are measured is

1. betadine
2. phenol
3. isopropyl alcohol
4. hexachlorophene

5-52. An accidential spill of phenol can be neutralized by

1. water
2. silver nitrate
3. hydrogen peroxide
4. alcohol

5-53. The primary pharmacological action of sulfonimides is

1. viricidal
2. parasiticidal
3. bacteriostatic
4. fungistatic

5-54. The most common use for systemic sulfonamides is in the treatment of which of the conditions listed below?

1. Respiratory infections
2. Urinary tract infections
3. Viral infections
4. Furunculosis

5-55. Silver sulfadiazine is used almost exclusively in the treatment of

1. surgical wound sepsis
2. burns
3. prostatitis
4. furunculosis

5-56. Which of the following is for parenteral administration only?

1. Dicloxicillin
2. Ampicillin
3. Penicillin V
4. Penicillin G

5-57. The drug of choice for uncomplicated group A beta-hemolytic streptococcal pharyngitis is

1. Penicillin V potassium
2. Nafcillin
3. Ampicillin
4. Dicloxicillin

5-58. Severe colitis and diarrhea may be adverse side effects of which of the following?

1. Neomycin sulfate
2. Gentamicin sulfate
3. Penicillin G benzathene
4. Clindamycin hydrochloride

5-59. Which of the following is an appropriate substitute for penicillin when penicillin is contraindicated?

1. Doxycycline
2. Cephalexin
3. Erythromycin
4. Streptomycin

5-60. Of the following drugs, which was developed with the sole purpose being the treatment of gonorrhea?

1. Penicillin G benzathene
2. Nitrofurantoin
3. Spectinomycin hydrochloride
4. Doxycycline hyclate

5-61. Undeclyenic acid is used as a/an

1. disinfectant
2. antipyretic
3. analgesic
4. fungicide

5-62. In addition to the treatment of *Phthirus*, which of the following is effective in the treatment of scabies?

1. Nystatin
2. Miconazole nitrate
3. Permethrin
4. Metronidazole

5-63. Trichomonas vaginalis can be treated with

1. crotamiton
2. metronidazole
3. fansidar
4. mebendazole

5-64. Drugs that destroy parasitic worms are known as

1. ambecides
2. vermicides
3. germicides
4. bactericides

5-65. The drug of choice for the treatment and management of grand mal seizures is

1. methylphenidate hydrochloride
2. phenobarbital
3. phenytoin sodium
4. any psychotropic agent

5-66. Prochlorperizine is used mainly to

1. treat symptoms of nausea and vomiting
2. alleviate symptoms of tension, agitation, and psychosis
3. counteract the effects of alcohol withdrawal
4. relieve respiratory distress

5-67. Muscle relaxants include all of the following EXCEPT

1. methocarbamol
2. diazepam
3. cyclobenzaprine hydrochloride
4. temazepam

5-68. Digitoxin increases the force of cardiac contraction by acting on the

1. vagus nerve
2. valves of the heart
3. heart muscle
4. blood vessels

5-69. Of the following, which is an appropriate drug to administer to a patient suffering an asthma attack?

1. Amyl nitrite
2. Epinephrine
3. Phenylephrine hydrochloride
4. Atropine

5-70. The vitamin deficiency associated with night blindness is

1. vitamin A
2. vitamin B_6
3. vitamin B_{l2}
4. vitamin K

5-71. A deficiency of which of the following could lead to inflammation, cracking of the lips, or vision problems?

1. Retinol
2. Thiamine
3. Riboflavin
4. Ascorbic acid

5-72. Which of the following is the vitamin involved in absorption and use of calcium and phosphorus?

1. Vitamin A
2. Vitamin B1
3. Vitamin C
4. Vitamin D

5-73. The agent used to treat pernicious anemia is

1. cyanocobalamin
2. ascorbic acid
3. vitamin D
4. vitamin K

5-74. The general anesthesia agent most commonly used in dentistry is

1. halothane
2. nitrous oxide
3. lidocaine hydrochloride
4. procaine hydrochloride

5-75. On what area of the body is proparacaine hydrochloride most widely used as a topical anesthetic?

1. Nose
2. Ears
3. Eyes
4. Throat

ASSIGNMENT 6

Textbook Assignment: "Clinical Laboratory," chapter 7, pages 7-1 to 7-36.

6-1. Which of the following, if any, is considered the most appropriate source for blood specimens obtained for clinical examination?

1. By venipuncture
2. By finger puncture
3. From an artery
4. None of the above

6-2. Using the steps below, determine the correct sequence for obtaining blood by finger puncture.

a. Clean finger
b. Lance finger
c. Milk finger
d. Collect specimen
e. Wipe away first drop

1. a, b, c, e, d
2. c, b, e, a, d
3. a, c, b, e, d
4. c, a, b, e, d

6-3. When performing a finger puncture, the first drop should be wiped away to avoid which of the following conditions?

1. Bacterial contamination
2. Clotting at the puncture site
3. Dilution of the specimen with alcohol
4. Dilution of the specimen with tissue fluids

6-4. How would a 5 ml blood specimen be obtained from a patient with an intravenous antibiotic being given through the left arm and blood being received through the right arm?

1. Multiple finger punctures
2. Left arm
3. Right arm
4. Hand or foot

6-5. A tourniquet applied to the arm during venipuncture should provide enough tension to compress the artery, but not the vein.

1. True
2. False

6-6. The correct needle position for venipuncture is (a) what degree angle and (b) with the bevel in what position?

1. (a) 15, (b) up
2. (a) 30, (b) up
3. (a) 15, (b) down
4. (a) 30, (b) down

6-7. A tourniquet is normally applied before and to aid in the process of venipuncture. At what point in the venipuncture procedure should you remove the tourniquet?

1. Just before needle insertion
2. Just after needle insertion, but before vacutainer
3. Once all specimens have been collected
4. After needle removal

6-8. The part of the microscope on which the prepared specimen is placed for examination is called the

1. arm
2. base
3. frame
4. stage

6-9. All of the following are components of the microscope's illumination system EXCEPT

1. internal light source
2. condenser
3. external light source
4. iris diaphragm

6-10. The total magnification available by using the lens color coded red is

1. 1000X
2. 450X
3. 100X
4. 10X

6-11. Light travels from the objective to the ocular lens through what component of the microscope?

1. Body tube
2. Iris diaphragm
3. High-powered lens
4. Revolving nosepiece

6-12. What objective should be used for a detailed study of stained bacterial smears?

1. Low power
2. High dry
3. Oil immersion
4. Either 2 or 3 above

6-13. If necessary, which, if any, of the following substances may be used for cleaning the lenses on a microscope?

1. Alcohol
2. Bleach
3. Xylene
4. None of the above

6-14. A CBC includes which of the following?

1. Total RBC count
2. Hematocrit
3. Differential WBC count
4. All of the above

6-15. The hemacytometer is designed primarily for what purpose?

1. To differentiate between red blood cells and white blood cells
2. To count white blood cells
3. To count red blood cells
4. Both 2 and 3

6-16. The main reason for using the cover glass included with the hemacytometer instead of an ordinary cover glass is because the hemacytometer cover glass

1. is clearer
2. has an even surface
3. is thicker
4. is less likely to break

6-17. A subnormal RBC count may indicate that the patient has which of the following listed conditions?

1. Leukopenia
2. Anemia
3. Dehydration
4. Uremia

6-18. What is the total capacity of the capillary pipette provided in a Unopette® for RBC count?

1. 0.5µl
2. 1.0µl
3. 10.0µl
4. 100.0µl

6-19. Which of the following conditions indicates that the counting chamber is properly loaded?

1. There is a thin, even film of fluid under the coverglass
2. The fluid flows into the grooves at the edges of the chamber
3. Air bubbles are seen in the field
4. The chamber is flooded

6-20. What objective should be used for counting RBCs?

1. Low power
2. High power
3. Oil immersion
4. High dry

6-21. When counting cells, to arrive at a correct count, the cells touching the lines on the_____ and _____are counted in addition to all cells totally within each square.

1. Left, top
2. Left, bottom
3. Right, top
4. Right, bottom

6-22. To arrive at the number of RBCs per mm^3, total the number of cells counted in the five fields and multiply by

1. 0.1
2. 10.0
3. 100.0
4. 10,000.0

6-23. Which of the following factors affect hemoglobin values?

1. Age
2. Sex
3. Altitude
4. All the above

6-24. Both the number of squares and the counting procedure for WBCs is the same as it is for RBCs.

1. True
2. False

6-25. What is the term used for the volume of erythrocytes expressed as a percentage of the volume of whole blood in a sample?

1. Hematocrit
2. Hemoglobin
3. Red blood count
4. Complete blood cell count

6-26. The hematocrit for a normal, healthy female is within what range?

1. 30 to 40 percent
2. 37 to 47 percent
3. 42 to 50 percent
4. 44 to 52 percent

6-27. A shift from leukocytosis toward leukopenia in a patient with a systemic bacterial infection is a good sign.

1. True
2. False

6-28. Select from those listed below the term used to describe an abnormally high WBC count.

1. Leukocytosis
2. Erythrocytosis
3. Leukopenia
4. Pancytopenia

6-29. Which of the following conditions may cause leukopenia?

1. Strep throat
2. Psittacosis
3. Anaphylactic shock
4. Each of the above

6-30. To arrive at the number of white cells per mm^3 of blood, total the number of cells counted in the four fields and multiply by

1. 0.5
2. 5.0
3. 50.0
4. 5000.0

6-31. A differential blood count is the percentage of distribution in the blood of which of the following types of cells?

1. Lymphocytes
2. Monocytes
3. Leukocytes
4. Erythrocytes

6-32. What is the function of leukocytes?

1. To carry oxygen through the blood
2. To control various disease conditions
3. To aid in clotting the blood
4. Each of the above

6-33. What type of leukocyte comprises the largest percentage of cells in the circulating blood?

1. Lymphocyte
2. Neutrophil
3. Erythocyte
4. Thrombocyte

6-34. When viewing a smear for a differential count, you identify the cells with the large, scattered dark blue granules that are darker than their nuclei as

1. lymphocytes
2. monocytes
3. basophils
4. neutrophils

6-35. The largest of the normal WBCs is the

1. monocyte
2. lymphocyte
3. eosinophil
4. basophil

6-36. On a properly prepared slide for a differential count, the smear will

1. extend from one side of the slide to the other
2. be evenly distributed on the entire slide
3. show no wavy or blank spots
4. show smooth even edges

6-37. Properly prepared differential slides require a longer rinse time than stain time.

1. True
2. False

6-38. If a smear used in a differential count is to be saved for reexamination, remove the immersion oil by placing a piece of lens tissue over the slide and moistening the tissue with

1. alcohol
2. water
3. xylene
4. acetone

6-39. A continued shift to the left with a falling total WBC count probably indicates

1. progress toward normal recovery
2. a decrease in immature neutrophils
3. a breakdown of the body's defense mechanism and is a poor prognosis
4. a decrease in parasitic and allergenic conditions

A. Recovery
B. Parasitic infection
C. Breakdown of the body's defense
D. Active tuberculosis

TO ANSWER QUESTIONS 6-40 THROUGH 6-43, SELECT FROM THE ABOVE LIST THE CONDITION THAT MOST APPROPRIATELY CORRESPONDS TO THE LEUKOCYTIC CHARACTERISTIC IN THE QUESTION.

6-40. Increased eosinophils.

1. A
2. B
3. C
4. D

6-41. Increased monocytes.

1. A
2. B
3. C
4. D

6-42. Decreased WBC count with increased juvenile cells.

1. A
2. B
3. C
4. D

6-43. Decreased WBC count with increased mature cells.

1. A
2. B
3. C
4. D

6-44. All of the following are classifications of bacteria EXCEPT

1. Temperature and moisture content
2. Growth requirements and morphologic characteristics
3. Toxins produced and disease-producing ability
4. Gram's stain reaction and colonial morphology

6-45. The difference between anaerobes and aerobes is that anaerobes need oxygen to reproduce.

1. True
2. False

6-46. Autotrophic bacteria require an environment that supplies them with nourishment.

1. True
2. False

6-47. Which of the following structures provides some bacteria with a means of movement?

1. Capsule
2. Spore
3. Spirillum
4. Flagellum

6-48. What type of bacterial toxin completely lyses erythrocytes?

1. Exotoxin
2. Endotoxin
3. Beta hemolysin
4. Alpha hemolysin

A. Impetigo
B. Plague
C. Pneumonia
D. Gas gangrene
E. Strep throat
F. Whooping cough

TO ANSWER ITEMS 6-49 THROUGH 6-53, SELECT FROM THE ABOVE LIST THE CONDITION MOST PROBABLY CAUSED BY THE AGENT LISTED IN THE QUESTION.

6-49. Bordetella pertussis.

1. A
2. C
3. E
4. F

6-50. Streptococcus pneumoniae.

1. A
2. B
3. C
4. E

6-51. Yersinia pestis.

1. B
2. C
3. D
4. E

6-52. Clostridium perfringens.

1. A
2. C
3. D
4. F

6-53. Staphylococcus aureus.

1. A
2. D
3. E
4. F

6-54. In the Gram's stain procedure, which of the following chemicals acts as the mordant?

1. Crystal violet
2. Safranin
3. Iodine
4. Acetone

6-55. All of the following statements are true about antigens EXCEPT that an antigen

1. is inherently unstable structurally
2. must be foreign to the body
3. possesses a high molecular weight
4. has a high specificity to stimulate tissues to produce antibodies

6-56. The Rapid Plasma Reagin test for syphilis is best used with what type of specimen?

1. Serum
2. Plasma
3. Whole blood
4. Either serum or plasma

6-57. To properly perform the RPR Card Test, the serum sample should be from arterial blood that has been separated from the blood cells as soon after collection as possible.

1. True
2. False

6-58. Which of the following actions is considered appropriate if a patient's RPR is reactive?

1. Give patient penicillin
2. Send patient to lab for further testing
3. Counsel patient against engaging in unsafe sex
4. Report results of RPR to patient's commanding officer

6-59. Which of the following chemical preparations is frequently used to detect fungi?

1. Hydrogen sulfoxide
2. Hydrogen peroxide
3. Potassium hydroxide
4. Potassium sulfate

6-60. The best urine specimen is that taken during which of the following times?

1. First morning
2. Random
3. Fasting
4. 24 hour

6-61. For a 24-hour urine specimen collection, which of the following statements is INCORRECT?

1. Discard the first specimen
2. Add a preservative after the first specimen has been obtained
3. Discard the last specimen
4. Refrigerate the specimen during the collection period

6-62. What purpose does toluene serve when used in conjunction with a urine specimen?

1. It increases the albumin
2. It dissolves unwanted cells
3. It protects the specimen from decomposition
4. It dissolves the albumin

6-63. Which of the following colors would be considered abnormal in a urine specimen?

1. Colorless
2. Amber
3. Straw
4. Red

A. Pyridium®
B. Bile
C. Blood
D. Fats (chyle)

TO ANSWER ITEMS 6-64 THROUGH 6-67, SELECT FROM THE ABOVE LIST THE MOST PROBABLE CAUSATIVE AGENT THAT WOULD PRODUCE THE URINE COLOR STATED IN THE QUESTION.

6-64. Milky.

1. A
2. B
3. C
4. D

6-65. Dark orange.

1. A
2. B
3. C
4. D

6-66. Red-brown.

1. A
2. B
3. C
4. D

6-67. Brown.

1. A
2. B
3. C
4. D

6-68. A report on urine transparency is valid regardless of standing time.

1. True
2. False

6-69. The specific gravity of a liquid or solid is the weight of the substance as compared to an equal volume of

1. ethanol
2. methanol
3. distilled water
4. normal saline

6-70. In the microscopic examination of urine sediment, scan the slide using the low per objective and examine it in detail using which of the following objectives?

1. Low power
2. High dry
3. High power
4. Oil immersion

6-71. The addition of one drop of 5 percent acetic acid to urine sediment will disintegrate

1. white blood cells
2. mucous threads
3. casts
4. red blood cells

6-72. There are seven types of casts or sediments found in urine. Of the four listed below, which may be attributed to lupus?

1. Red cell casts
2. Fatty casts
3. Granular casts
4. Epithelial casts

ASSIGNMENT 7

Textbook Assignment: "Medical Aspects of Chemical, Biological, and Radiological Warfare," chapter 8, pages 8-1 to 8-18; "Diet and Nutrition," chapter 9, pages 9-1 to 9-11; "Emergency Dental Care and Preventive Medicine," chapter 10, pages 10-1 to 10-6.

7-1. Who is responsible for area decontamination of chemical agents aboard ship?

1. Medical officer
2. Supply officer
3. Damage control personnel
4. All hands

7-2. What should be the first priority in the treatment of chemically contaminated casualties?

1. Control of massive hemorrhage
2. Decontamination
3. Treatment of life-threatening shock and wounds
4. Removal of contaminated clothing

7-3. Who, if anyone, is responsible for maintaining adequate supplies for the decontamination and treatment of CBR casualties?

1. Medical officer
2. Damage control officer
3. Supply officer
4. No one

7-4. Nerve agents produce their effect by interfacing with normal transmission of nerve impulses.

1. True
2. False

7-5. The tendency of a chemical agent to remain effective in a contaminated area is known as

1. lethality
2. persistency
3. volatility
4. permeability

7-6. Inhalation of nerve gas characteristically results in which of the symptoms listed below?

1. Local muscular twitching
2. Dry mouth
3. Pinpoint pupils
4. Pulmonary edema

7-7. In a definitive care facility, the indicated treatment of a nerve agent victim includes which of the following therapies?

1. 2 mg atropine and 600 mg 2-PAM chloride every 15 minutes until recovery
2. 2 mg atropine every 15 minutes until the victim has a dry mouth and mild tachycardia
3. 600 mg 2-PAM chloride every 15 minutes until the victim is conscious
4. Respiratory support only

7-8. What part of the body is most sensitive to the effects of mustard gases?

1. Eyes
2. Lungs
3. Liver
4. Skin

7-9. Specific antidotal therapy is available for which, if any, of the following vesicants?

1. Mustard (HD)
2. Nitrogen mustard (HN)
3. Lewisite (L)
4. None of the above

7-10. First aid treatment for blood agents is amyl nitrite ampules followed by which of the compounds listed below?

1. Oral potassium chloride
2. Oral sodium thiosulfate
3. Intravenous potassium chloride
4. Intravenous sodium thiosulfate

7-11. The symbol for phosgene gas is

1. C1
2. CN
3. CG
4. CK

7-12. Which of the following odors is an early indication of exposure to phosgene gas in casualty-producing amounts?

1. Bitter almonds
2. A freshly mown lawn
3. Geraniums
4. None of the above. Phosgene is undetectable

7-13. The chemical agent that primarily affects the higher regulatory functions of the CNS is represented by which of the following symbols?

1. AC
2. BZ
3. CN
4. CS

7-14. Exposure to fresh air and allowing wind to blow across wide open eyes is generally sufficient treatment for which of the following agents?

1. Psychochemicals
2. Lacrimators
3. Vomiting agents
4. Glycolates

7-15. With exposure to Adamsite, which, if any, of the following actions must be taken to minimize or inhibit the symptoms of exposure?

1. Don a protective mask and continue duties as vigorously as possible
2. Give an intramuscular injection of physostigmine
3. Give an intravenous infusion of sodium thiosulfate
4. Do none of the above

7-16. What is the proper treatment for burning white phosphorus particles embedded in the skin?

1. Surgical removal followed by a copper sulfate wet dressing
2. A copper sulfate rinse then surgical removal
3. A copper sulfate rinse only
4. Allowing them to burn out

7-17. By what means can biological agents can be detected?

1. Physical senses
2. Chemical detectors
3. Laboratory examination
4. All of the above

7-18. When entering an area known to be contaminated with biological agents, which of the following actions should be taken?

1. Put on gloves, if available
2. Button up clothing
3. Put on a protective mask
4. Do all of the above

7-19. What is the appropriate procedure to follow when biological agents are known to have been placed in your drinking water?

1. Double the amount of chlorine in the water
2. Double the time the water is exposed to the chlorine
3. Boil the water before you drink any of it
4. Refrain from drinking the water

7-20. Presenting a serious internal radiation hazard, alpha particles can enter the body through which of the following?

1. The digestive system
2. The respiratory system
3. Open wounds
4. Any of the above

7-21. Of the following, which type of radiation has the greatest penetrating power?

1. Alpha
2. Beta
3. Gamma
4. Neutron

7-22. In the event of a nuclear detonation, what is the best position to assume?

1. Sitting, with the knees drawn up to the chest, facing away from the blast
2. Face down, with your face covered
3. On your side, in a fetal position facing away from the blast
4. Supine, with your face covered

7-23. The treatment of thermal burns from a nuclear detonation differs from more conventional burn wounds in which, if any, of the following ways?

1. Conventional burn wounds are generally less serious
2. Conventional burn wounds are more likely to become infected
3. Burns resulting from a nuclear detonation are more painful
4. There is no difference

7-24. When using antibiotics for victims of radiation injuries, what is the recommended dosage?

1. One-half of the normal dosage
2. The normal dosage
3. Two times the normal dosage
4. Three times the normal dosage

7-25. Approximately what number of calories must be burned or consumed for the average individual to lose or gain one pound?

1. 1,500
2. 2,000
3. 3,500
4. 5,000

7-26. Which of the following nutritive elements are considered the "building blocks" of the body?

1. Fats
2. Carbohydrates
3. Minerals
4. Proteins

7-27. What happens to protein consumed that is in excess of body requirements?

1. Used to supply energy only
2. Changed into fat only
3. Both 1 and 2
4. Excreted from the body through elimination

7-28. What total number of amino acids are obtained solely from the food we eat?

1. 3
2. 7
3. 9
4. 11

7-29. What amount of protein should a non-pregnant person consume on a daily basis?

1. 0.8 g/kg
2. 1.2 g/kg
3. 2.2 lbs
4. There is no specific recommended amount

7-30. Protein deficiency can result in which of the following conditions?

1. Nutritional edema
2. Secondary anemia
3. Restricted growth
4. Each of the above

7-31. The number of calories generated by each gram of protein, fat, and carbohydrate, respectively is

1. 3, 6, 4
2. 4, 9, 4
3. 6, 3, 9
4. 9, 4, 6

7-32. The serum cholesterol level of adults over the age of 30 should be less than

1. 100 mg/dl
2. 150 mg/dl
3. 200 mg/dl
4. 300 mg/dl

7-33. Of the following, which is NOT a source of dietary fat?

1. Rice
2. Whole milk
3. Avocados
4. Egg yolks

7-34. Refined and processed sugars should make up no more than what percent of an individual's total caloric intake?

1. 5
2. 10
3. 15
4. 20

A. Complex carbohydrates
B. Simple carbohydrates
C. Proteins
D. Fats

FOR QUESTIONS 7-35 TO 7-39, USE THE ABOVE LIST TO MATCH THE FOOD IDENTIFIED IN EACH OF THE QUESTIONS TO THE NUTRITIVE ELEMENT <u>PRIMARILY</u> ASSOCIATED WITH IT.

7-35. Fish.

1. A
2. B
3. C
4. D

7-36. Honey.

1. A
2. B
3. C
4. D

7-37. Butter.

1. A
2. B
3. C
4. D

7-38. Eggs.

1. A
2. B
3. C
4. D

7-39. Corn.

1. A
2. B
3. C
4. D

7-40. An otherwise normal, healthy diet is always sufficient to provide an individual with adequate levels of minerals.

1. True
2. False

7-41. Consumption of excessive amounts of certain vitamins can, in some circumstances, be fatal.

1. True
2. False

7-42. Which of the following is sometimes referred to as "the forgotten nutrient"?

1. Selenium
2. Phosphorus
3. Water
4. Fructose

7-43. According to the Dietary Guidelines for Americans, upon which of the following dietary elements should a nutritional diet be based?

1. Fruits and vegetables
2. Complex carbohydrates
3. Fats
4. Dairy

7-44. Fried foods, as long as they are not too crisp, may be included in a soft diet.

1. True
2. False

7-45. When a liquid diet has been ordered by the attending physician or dietician, the feedings should be ____ ounces and administered every ____ hours.

1. 4-6, 3-4
2. 6-8, 2-3
3. 8-10, 6-8
4. 10-12, 2-3

7-46. A high-calorie diet may be effected by modifying the regular diet in which of the following ways?

1. Adding snacks
2. Increasing portions
3. Providing commercial supplements
4. Each of the above

A. Liquid
B. High-calorie
C. High-protein
D. Low-calorie
E. Low-protein

FOR QUESTIONS 7-47 TO 7-51, SELECT THE DIET FROM THE LIST ABOVE THAT MOST APPROPRIATELY MATCHES THE MALADY IN THE QUESTION.

7-47. Malnourishment.

1. A
2. B
3. C
4. D

7-48. Hypothyroidism.

1. E
2. D
3. C
4. B

7-49. Inflammatory GI tract.

1. A
2. B
3. C
4. D

7-50. Low production of antibodies.

1. E
2. D
3. C
4. B

7-51. Chronic nephrotic edema.

1. B
2. C
3. D
4. E

7-52. Which of the following is appropriate procedure in the administration of a high-residue diet?

1. Ensure adequate fluid intake
2. Limit caffeine intake
3. Provide raw or tender-cooked vegetables
4. All of the above

A. High-residue
B. Low-residue
C. Low-sodium
D. Bland
E. Low-carbohydrate, high-protein

FOR QUESTIONS 7-53 TO 7-57, SELECT THE DIET FROM THE LIST ABOVE THAT MOST APPROPRIATELY MATCHES THE MALADY IN THE QUESTION.

7-53. Peptic ulcers.

1. E
2. D
3. C
4. B

7-54. Hypertension.

1. A
2. B
3. C
4. D

7-55. Hemorrhoidectomy.

1. E
2. D
3. C
4. B

7-56. Hypoglycemia.

1. B
2. C
3. D
4. E

7-57. Spastic colon.

1. A
2. B
3. C
4. D

7-58. What is the most common cause of dental caries?

1. Sugar
2. Lack of fluoridation
3. Infrequent dental examinations
4. Bacterial plaque

7-59. Severe inflammation of the tooth pulp is known as

1. acute pulpitis
2. periapical absess
3. marginal gingivitis
4. necrotizing ulcerative gingivitis

7-60. The most frequent cause of marginal gingivitis is

1. bacteria
2. caries
3. poor oral hygiene
4. periodontitis

7-61. What is the most frequent cause of periodontal abscesses?

1. A virus
2. An infection
3. Poor oral hygiene
4. Prolonged irritation

7-62. An inflammation of the gingiva around a partially erupted tooth is known as

1. periodontitis
2. periodontal abscess
3. stomatitis
4. pericoronitis

7-63. An inflammation of the oral mucosa is called

1. periocoronitis
2. gingivitis
3. stomatitis
4. periodontitis

7-64. Labial herpes is an infection that results in which of the following conditions?

1. Fever blisters
2. Gingivitis
3. Pericoronitis
4. All the above

7-65. Excruciating, constant pain 3 days after a tooth extraction indicates which of the following conditions?

1. Hemorrhage
2. Osteitis
3. Stomatitis
4. Pericoronitis

7-66. The form used to record dental treatment is the

1. SF 600
2. SF 602
3. EZ 603A
4. NAVMED 6150/20

7-67. In addition to maintaining and promoting good health, personal hygiene is important for which of the following reasons?

1. Inhibits the spread of disease
2. Promotes good morale
3. Decreases the risk of disabling disease
4. All of the above

7-68. Preventive medicine procedures in the Navy are addressed in detail in what publication?

1. SECNAVINST 4061.1
2. NAVMED P-5010
3. NAVMED P-5038
4. Navy Supply Publication 486

7-69. Animals that carry disease and can transmit those diseases to human or animal hosts to cause illness or injury are called

1. pests
2. insects
3. vectors
4. rodents

7-70. Guidance as to appropriate food storage temperatures, storage life of perishable and semi-perishable food items, and safe time limits for keeping food can be found in which of the following publications?

1. SECNAVINST 4061.1
2. NAVMED P-5010
3. NAVMED P-5038
4. Navy Supply Publication 486

7-71. All Navy and Marine Corps food-service facilities must be inspected by a medical department representative and food-service department representative.

1. True
2. False

7-72. Immunizations used within the Armed Forces are required to meet standards set forth by which of the following organizations?

1. Food and Drug Administration
2. Department of Health and Human Services
3. Centers for Disease Control
4. National Institutes of Health

7-73. Instructions for preparing and submitting the Medical Event Report can be found in which of the following publications?

1. SECNAVINST 4061.1
2. NAVMED P-5010
3. NAVMED P-5038
4. Navy Supply Publication 486

7-74. As long as it is clear, tastes good, and is free from odor, water obtained in the field can be considered to be potable.

1. True
2. False

7-75. Marine sanitation devices (MSDs) perform what function(s) aboard ship?

1. Treat sewage before discharge into restricted waters
2. Collect and hold sewage for treatment
3. Treat sewage before discharge into unrestricted waters
4. Both 2 and 3

ASSIGNMENT 8

Textbook Assignment: “Physical Examinations,” chapter 11, pages 11-1 to 11-12; "Health Records," chapter 12, pages 12-1 to 12-25; "Supply," chapter 13, pages 13-1 to 13-21.

8-1. Physical examinations of Navy and Marine Corps personnel, whether active or reserve, may be performed by which of the following?

1. Navy medical officers
2. DoD physicians
3. Credentialed civilian contract physicians
4. All the above

8-2. What entity is responsible for setting the physical standards for entry into the U.S. Navy?

1. Bureau of Naval Personnel
2. Department of Defense
3. Bureau of Naval Medicine
4. Chief of Naval Operations

8-3. In which, if any, of the following publications will you find the prescribed intervals for periodic physical examinations?

1. MILPERSMAN
2. NAVMED P-5010
3. NAVMED P-117
4. None of the above

8-4. All of the following are functions of a medical board EXCEPT

1. evaluating and reporting on diagnosis
2. selection of personnel for special duty
3. planning for treatment, rehabilitation, or convalescence
4. estimating the length of further disability

8-5. Family member screening is required even if a servicemember is accepting unaccompanied orders to an overseas duty station.

1. True
2. False

8-6. Medical surveillance examinations are required for certain occupational fields or certain skills or jobs; e.g., people who work with beryllium or mercury. Specific guidelines on what tests are required and the frequency of those tests can be found in

1. BUMEDINST 5100.1
2. COMNAVMEDCOMINST 5100.46
3. OPNAVINST 5100.23
4. SECNAVINST 6200.2

8-7. What report is used when a member is expected to return to full duty status after being placed on limited duty?

1. Limited Duty (LIMDU) Board
2. Formal Medical Board
3. Abbreviated Temporary Limited Duty (TLD) Medical Board
4. Physical Examination Board (PEB)

8-8. Which of the following steps is appropriate when a servicemember is found not fit for duty after an initial TLD period of 6 months, but has a favorable prognosis and is expected to be returned to duty within 4 more months?

1. Administrative separation
2. Extension of 4 months to his TLD
3. Initiation of a second and final 6-month TLD
4. Formal medical board

8-9. What is the maximum length of time an individual may be held on limited duty without convening a formal board?

1. 8 months
2. 16 months
3. 1 year
4. 2 years

8-10. Who is responsible for verifying the content of a medical board?

1. The attending physician
2. The LIMDU Coordinator
3. The Patient Administration Limited Duty Coordinator
4. The convening authority

8-11. A command endorsement is required on a formal medical board.

1. True
2. False

8-12. A Sailor reports for her periodic physical examination and states that no changes have occurred in her medical status since her last physical. What entry, if any, would be appropriate to put in block 25 of her SF 93, Report of Medical History?

1. "N/A"
2. "No changes"
3. "No significant interval history"
4. Nothing; leave block 25 blank

8-13. One method for testing near visual acuity is the

1. Snellen charts
2. Jaeger cards
3. Farnsworth lantern
4. pseudoisochromatic plates

8-14. The preferred method for testing color vision is the

1. Snellen charts
2. Jaeger cards
3. Farnsworth lantern
4. pseudoisochromatic plates

8-15. EKGs are performed routinely as part of a member's physical examination once the member reaches the age of 35.

1. True
2. False

8-16. The health record of a military member may be used for which of the following purposes?

1. Aid in determining claims
2. Determine physical fitness
3. Provide data for medical statistics
4. Do all of the above

8-17. Of the following, which is NOT considered a major category of the primary medical record?

1. DREC
2. HREC
3. IREC
4. OREC

8-18. Secondary medical records, which are held separately from primary medical records, are not normally opened or maintained for active duty personnel. Under which of the following circumstances may a secondary medical record be established for an active member?

1. The member is to undergo surgery
2. The member is to go TAD for medical treatment
3. The member is under investigation for domestic abuse
4. The member is AWOL

8-19. What information should be included on the NAVMED 6150/20 of a member's primary medical record with respect to the existence of a member's secondary medical record?

1. Nature of secondary record
2. Patient's diagnosis
3. Clinic name, address, and phone number
4. Each of the above

8-20. Custody of health records is generally vested in the medical department. On ships without a medical department representative, an individual retains custody of the record until which of the following times, if any?

1. Transfer
2. Transfer with verification every 6 months
3. Transfer with annual verification
4. Never

8-21. Health records are for official use only but are subject to inspection an any time by

1. the commanding officer or his or her superior
2. authorized medical inspectors
3. the fleet medical officer
4. any of the above

8-22. When a member is hospitalized in a foreign nation and the ship departs port, the health record is

1. retained on board
2. turned over to the hospital
3. forwarded to the nearest U.S. consulate or embassy
4. turned over to another U.S. vessel in port

8-23. Although considered privileged, release of information in the health record is required under the Freedom of Information Act.

1. True
2. False

8-24. Under which of the following circumstances may an individual's medical information be released to his authorized representative(s)?

1. When verbally requested by the individual
2. Upon request of the representative when adequate proof of the individual's death can be provided
3. Upon proof that the individual has been declared mentally incompetent
4. Both 2 and 3 above

8-25. A well-known and preeminent research group requests medical information to use as part of the basis of a study it is performing. What action, if any, should be taken prior to release?

1. Commanding officer of MTF should release information immediately
2. Commanding officer of MTF should check with the Judge Advocate General for advice
3. Commanding officer of MTC should forward the request to BUMED for guidance
4. None; an individual's medical information may not be released for research

8-26. The health record jacket of PO3 Walter T. Door, 333-44-5555, would be what color?

1. Blue
2. Almond
3. Orange
4. Pink

8-27. A health record is only opened in which of the following cases?

1. When a member returns to active duty from the retired list
2. When the original record has been lost
3. When first becoming a member of the naval service
4. In all the above cases

8-28. In the record category box on the health record jacket, all active duty military records are identified by what color tape?

1. Blue
2. Black
3. Red
4. White

8-29. The health jackets of flag or general officers should be annotated to reflect their rank.

1. True
2. False

8-30. When a HREC is opened on a service member, the member should be directed to read and sign the Privacy Act Statement inside the back cover of the HREC.

1. True
2. False

8-31. Entries to the Chronological Record of Medical Care, SF 600, when not typewritten, should be made in which color(s) of ink?

1. Blue
2. Black or blue-black
3. Red
4. Ink color is irrelevant

8-32. What is the preferred form on which to record admission to the hospital?

1. SF 509, Medical Record-Progress Report
2. SF 600, Chronological Record of Medical Care
3. NAVMED 6150/4, Abstract of Service and Medical History
4. NAVMED 6150/20, Summary of Care

A. SF 600
B. SF 601
C. DD1141
D. NAVMED 6150/2

IN ANSWERING QUESTIONS 8-33 THROUGH 8-36, SELECT FROM THE ABOVE LIST THE APPROPRIATE HEALTH RECORD FORM FOR RECORDING THE INFORMATION GIVEN.

8-33. Routine innoculations.

1. A
2. B
3. C
4. D

8-34. Human immune virus testing.

1. A
2. B
3. C
4. D

8-35. Sick call visits for poison ivy.

1. A
2. B
3. C
4. D

8-36. Results of radiation monitoring.

1. A
2. B
3. C
4. D

A. NAVMED 6150/4
B. SF 539
C. SF 601
D. DD 771

IN ANSWERING QUESTIONS 8-37 THROUGH 8-39, SELECT FROM THE ABOVE LIST THE HEALTH RECORD FORM THAT MOST CLOSELY RELATES TO THE STATEMENT IN THE QUESTION.

8-37. Used for ordering corrective lenses.

1. A
2. B
3. C
4. D

8-38. May be used for an active duty patient who is admitted to the hospital for less than 24 hours.

1. A
2. B
3. D
4. E

8-39. A record of prophylactic immunizations and sensitivity tests.

1. A
2. B
3. C
4. D

8-40. Which of the following documents should NEVER be filed in an individual's HREC?

1. FM 8-33
2. PHS-731
3. SF 509
4. NAVMED 6100/1

8-41. In which of the following circumstance should the health record be verified?

1. Upon reporting
2. Upon transfer
3. At the time of a physical examination
4. In all of the above cases

8-42. Under which of the following circumstances would a member's health record NOT be closed?

1. Transfers to a new duty station
2. Transfers to the Fleet Reserve
3. Placed on the retired list
4. Declared missing in action

8-43. On which of the following documents would a notation be made concerning an member's status as a deserter?

1. SF 600
2. NAVMED 6100/1
3. NAVMED 6150/4
4. Both 1 and 3

8-44. A copy of the HREC of a member separated for disability should be given to the member for presentation to the DVA so that the member's claim can be processed expeditiously.

1. True
2. False

8-45. Which of the following types of appropriations is not normally used by the Navy?

1. Multiple-year
2. Annual
3. Continuing
4. Apportioning

8-46. At the end of the second quarter, what is done with the funds that have not been obligated in the previous quarter?

1. The funds are carried over into the next quarter
2. The funds are carried over into the next year
3. The funds are returned to the Treasury
4. The funds are placed in the command's welfare and recreation fund

8-47. The shipboard medical OPTAR may be used to purchase all of the following items EXCEPT

1. x-ray units and film processors
2. medical books and publications
3. gun bags
4. litters and stretchers

8-48. Which of the following characteristics could designate an item as controlled equipage?

1. High cost
2. Liable to pilferage
3. Required for ship's mission
4. Each of the above

8-49. The first four digits of a National Stock Number are known as the

1. Federal Supply Classification code
2. Federal Stock number
3. National Identification number
4. Cognizance symbol

8-50. How many digits are in a National Stock Number?

1. 9
2. 10
3. 12
4. 13

8-51. In which of the following would you find handling or storage codes, a brief description of each item, and a cross-reference of NINs and NSNs?

1. Management Data List (MDL)
2. Identification List (IL)
3. Authorized Medical Allowance List (AMAL)
4. Naval Supply System Command Manual

TO ANSWER ITEMS 8-52 THROUGH 8-54, SELECT FROM THE TABLE BELOW THE LEVEL OF SUPPLY DEFINED IN THE ITEM.

A. Stockage objective
B. Identification List (IL)
C. Operating level
D. Requisitioning objective

8-52. The quantity of an item required to support operations between the time a requisition is submitted and receipt of material.

1. A
2. B
3. C
4. D

8-53. The minimum amount of an item of material required to support operations.

1. A
2. B
3. C
4. D

8-54. The maximum amount of material in stock and on order to support operations.

1. A
2. B
3. C
4. D

8-55. What is the name of the standard computer supply management system used by shipboard medical departments?

1. Shipboard Automated Medical Supply
2. SNAP Automated Medical System
3. Supply Automated Medical System
4. Shipboard Automated Management System

8-56. Medical journals and books may be ordered on which of the following forms?

1. DD Form 1149, Requisition and Invoice/Shipping Document
2. NAVSUP Form 1250-1, Single-Line Item Requisition Document (manual)
3. DD Form 1348m, DOD Single-Line Item Requisition Document (mechanical)
4. DD Form 1348m, Non-NSN Requisition (manual)

8-57. Who assigns the Urgency of Need Designator (UND) on a requisition?

1. Activity requiring the material
2. Supply depot
3. Stock point
4. Inventory control point

8-58. What is the purpose of a Report of Discrepancy, SF 364?

1. To determine the cause of a discrepancy
2. To effect corrective action on a discrepancy
3. To prevent recurrence of a discrepancy
4. To do all of the above

8-59. Whenever possible and where space permits, aisles in stowage areas should be at least how wide?

1. 18 in
2. 24 in
3. 30 in
4. 36 in

8-60. All of the following locations aboard ship are appropriate stowage areas for hazardous material EXCEPT

1. below the full-load water line
2. adjacent to a magazine
3. near either end of the ship
4. behind watertight doors

8-61. Alcohol should be stowed in a locked container in the paint and flammable liquid storeroom.

1. True
2. False

8-62. What is the primary purpose of an inventory?

1. To locate missing items
2. To determine what items are in a storeroom
3. To ensure balance on hand match stock record cards
4. To balance the OPTAR

8-63. Differences between on-hand quantity, location of stock, or other stock record data should be reconciled in accordance with what publication?

1. NAVSUP 1114
2. NAVSUP P-437
3. NAVSUP P-485
4. NAVSUPINST 4200.85

8-64. Once a stock record card has been totally filled in, a new card should be prepared, following all of the steps listed EXCEPT

1. bring forward demand quantity and frequency demand totals from old card
2. destroy old card, in accordance with local policy
3. bring forward any outstanding requisitions from old card
4. enter the beginning date on the new card

8-65. How often must inventory of controlled substances be conducted?

1. Weekly
2. Monthly
3. Quarterly
4. Semiannually

8-66. In what document would you find the contents of each contingency block outlined?

1. AMAL
2. MAP
3. MMART Manual
4. SPRINT

8-67. At a minimum, how often should all AMALs be reviewed?

1. Monthly
2. Quarterly
3. Semiannually
4. Annually

ASSIGNMENT 9

Textbook Assignment: “Administration,” chapter 14, pages 14-1 to 14-14; "Health Care Administration," chapter 15, pages 15-1 to 15-13; and "Decedent Affairs," chapter 16, pages 16-1 to 16-15.

9-1. The Medical Department Journal contains a chronological record of events concerning the Medical Department and should include all of the following EXCEPT

1. reports of personnel casualties, injuries, or deaths
2. personnel entered onto or deleted from the binnacle list
3. medical histories of personnel
4. training lectures to stretcher bearers

9-2. NAVMED 6320/18, Binnacle List, is used to list all personnel falling into what status?

1. Admitted to the hospital
2. Excused from duty for 24 hours or less because of illness
3. Excused from duty for more than 24 hours because of illness
4. Who reported to sick call in the morning

9-3. NAVMED 6320/19 Morning Report of the Sick, must be submitted to the commanding officer daily by what time?

1. 0800
2. 0900
3. 1000
4. 1100

9-4. A member misses his clinical appointment. He has missed two previous appointments. What action, if any, should the Corpsman maintaining the appointment log take?

1. Call the member and reschedule the appointment
2. Notify the member's chain of command that he has missed several appointments
3. Do nothing; when the member is able to reschedule, he will do so

9-5. A notice issued under the Navy Directive Issuance System has the same force and effect as an instruction.

1. True
2. False

9-6. In the process of making changes to directives, which of the following procedures should you follow?

1. Annotate the first page of the directive with "CH-#" (# = change number) to indicate the change has been incorporated into the directive
2. If the directive is removed from the binder or file, replace the directive with a locator sheet
3. If the directive is in the form of a publication, fill out the "Record of Changes" sheet in the front of the book
4. Each of the above

9-7. Routine unclassified correspondence must contain all of the following items in the identification symbol EXCEPT

1. standard subject identification symbol
2. date
3. serial number
4. organization code

9-8. In what publication would you find examples of and instructions for the proper formatting of a naval message?

1. NTP 3
2. SECNAVINST 5210.11
3. Navy Correspondence Manual
4. Navy Message Manual

9-9. A Navy letter carries the subject identification number 5320. What is the major subject of the letter?

1. Military personnel
2. Operations and readiness
3. General administration and management
4. Financial management

9-10. What is the process called that is used to determine the correct subject group under which documents should be filed?

1. grouping
2. coding
3. classifying
4. cross-referencing

9-11. It is prudent to cross-reference a piece of correspondence under which of the following circumstances?

1. The basic correspondence has separate enclosures
2. The document has multiple subjects
3. There is more than one applicable SSIC
4. Each of the above

9-12. Budget and accounting files are terminated and new files begun at what time(s)?

1. Semi-annually, on 31 March and 30 September
2. Annually, at the end of the calendar year
3. Annually, at the end of the fiscal year
4. Every 3 years

9-13. Tickler files are used to determine all of the following EXCEPT

1. when reports are due
2. ship's movement/port schedule
3. when physical examinations are required
4. immunization schedules

9-14. The Marine Corps specially assigns members to the Fleet Marine Force to serve as medical and dental personnel

1. True
2. False

9-15. All of the following are considered part of the primary mission of the medical battalion EXCEPT

1. emergency treatment
2. evacuation
3. immunization
4. temporary hospitalization

9-16. Which of the following could be considered accurate attributes of a fleet hospital?

1. Non-deployable, permanent station for high-intensity situations
2. Transportable, with 100 to 500 beds, providing moderately sophisticated care
3. Designed for short-term (less than 60 days) operations involving large numbers of ground forces
4. Mostly self-supporting and relocatable, with less than 100 beds

9-17. A fleet hospital has what number of directorates?

1. 2
2. 3
3. 4
4. 5

9-18. The operation of fleet hospital supply departments are conducted in accordance with what directive?

1. NAVMED P-5010
2. BUMEDINST 6440.6
3. NAVSUP P-485
4. NAVSUP P-437

9-19. Through use of the Medical Augmentation Program (MAP), it is possible to do all of the following EXCEPT

1. monitor wartime manning readiness
2. augment operational medical personnel, as necessary
3. train medical personnel
4. develop a readiness reporting system

9-20. The Mobile Medical Augmentation Readiness Team is a peacetime version of the Medical Augmentation Program.

1. True
2. False

9-21. Detailed information concerning MMART can be found in what directive or manual?

1. NAVMED P-5010
2. BUMEDINST 6440.6
3. NAVSUP P-485
4. NAVSUP P-437

9-22. Before an accurate determination of the number of personnel and amount of material are needed for a particular military operation, the staff surgeon and dental surgeon must know about enemy and friendly capabilities, as well as environmental factors. What is this information, taken as a whole, called?

1. Medical estimate
2. Planning factors
3. Medical intelligence
4. Command mission

9-23. Who establishes patient evacuation policy?

1. Secretary of the Navy
2. Joint Chiefs of Staff
3. Chief of Naval Medicine
4. Secretary of Defense

9-24. Eligibility for medical care at a military medical treatment facility is established by the _____ and verified by the _____?

1. Personnel office, medical treatment facility
2. Military treatment facility, personnel office
3. Commanding officer, physician on duty
4. Commanding officer, personnel officer

9-25. In a case where DEERS determines that a patient with a valid ID card is ineligible for care, the ID card will always be the determining factor. No other supporting documents are required

1. True
2. False

9-26. Which of the following beneficiaries can receive medical care and can also be enrolled in the DEERS system?

1. Red Cross workers
2. Secretary of the Navy designees
3. Secret Service agents
4. Newborns

9-27. BUMED and OPNAV both have instructions covering healthcare and quality assurance programs?

1. True
2. False

9-28. It is the primary function of which of the following programs to provide a good communication and rapport between the patient and medical department staff?

1. The Patient Contact Program
2. The FOIA
3. The Patient Relations Program
4. The Family Advocacy Program

9-29. What authority has the responsibility of the Family Advocacy Program?

1. BUMED
2. NMPC
3. Family Service Center
4. BUPERS

9-30. A committee consisting of members from what professional areas of the Navy reviews abuse cases?

1. Medical, line, chaplain, security
2. Medical, chaplain, security, Family Service Center
3. Medical, line, chaplain, Family Service Center
4. Medical, line, security, Family Service Center

9-31. The Navy hopes to achieve its drug free "zero tolerance" goal by the use of which of the following methods?

1. Detection
2. Education
3. Deterrence
4. Treatment

9-32. What training prevention program is specifically aimed at the junior Sailor?

1. ADAMS
2. PREVENT 2000
3. Alcoholics Anonymous
4. IMPACT

9-33. What is the primary function of a DAPA?

1. To facilitate shipboard Alcoholics Anonymous meetings
2. To coordinate on-site training for the crew
3. To act as the liaison between civilian authorities and the Commanding Officer
4. To arrange for inpatient treatment

9-34. Which of the following is a true statement concerning competence for duty exams?

1. The Executive Officer can fill out blocks 1 through 13 of NAVMED 6120/1
2. An Independent Duty Corpsman can fill out blocks 12 - 49 of NAVMED 6120/1
3. The patient must give his written consent before a sample of blood can be obtained
4. A search authorization is required only if the patient refuses to cooperate

9-35. Medical has responsibility for which aspects of the Physical Readiness Program?

1. Testing
2. Education and training
3. Legal
4. Obesity research

9-36. The responsibility of informing a patient of the consequences of a non-emergent medical procedure and obtaining informed consent from that patient lies ONLY with the medical provider.

1. True
2. False

9-37. Of the following, who would be the best choice to witness a patient's consent to a medical procedure?

1. A stranger
2. An immediate family member
3. A member of the medical team
4. A relative

9-38. Which is NOT a true statement about an incident report?

1. They are confidential but if misused or mishandled, they can become public
2. The reports must be limited to only facts and a logical conclusion
3. Copies must be limited
4. They must be forwarded only to the quality assurance coordinator

9-39. The Privacy Act governs the disclosure of documents compiled and maintained by government agencies.

1. True
2. False

9-40. Through use of the FOIA an individual can gain access to information pertaining to himself from federal agency records and correct those records, if necessary.

1. True
2. False

FOR QUESTIONS 9-41 THROUGH 9-45, MATCH THE INSTRUCTION WITH ITS CORRESPONDING NUMBER. ALL ANSWERS WILL NOT BE USED.

A. Risk Management Program
B. Physical Readiness Program
C. Patient Relations Program
D. Family Advocacy Program
E. CHAMPUS
F. Quality Assurance Program
G. Sexual Assault Victim Intervention
H. Victim and Witness Program

9-41. OPNAVINST 1752.1.

1. E
2. F
3. G
4. H

9-42. BUMEDINST 6320.70.

1. A
2. B
3. C
4. D

9-43. NAVMEDCOMINST 6320.18.

1. C
2. D
3. E
4. F

9-44. BUMEDINST 6010.21.

1. A
2. B
3. C
4. D

9-45. BUMEDINST 6010.13.

1. C
2. D
3. E
4. F

9-46. Which statement is true concerning the release of an active duty patient under arrest?

1. No official action by hospital personnel is required before local authorities can take custody
2. No patient may be released from treatment before it is medically reasonable to do so
3. The patient must be transported directly to his parent command
4. A federal warrant must be presented before the patient can be released to civilian authority

9-47. The Commanding Officer is authorized to deliver an active duty patient to civilian authorities when a proper warrant is presented under all of the circumstances listed EXCEPT when

1. the ship is within the territorial waters of the requesting jurisdiction
2. the patient refuses to leave and requests a lawyer
3. the patient is outside the jurisdiction if the civilian authority
4. cognizant JAG office has not been contacted

9-48. All of the following are categories of eligible prisoner beneficiaries EXCEPT

1. military prisoners
2. nonmilitary federal prisoners
3. prisoners of war and other detained personnel
4. illegal aliens awaiting deporation or processing

9-49. Which of the following personnel is authorized emergency care ONLY?

1. Enemy prisoners of war
2. Nonmilitary federal prisoners
3. A previously active duty person past his EAOS released from a foreign prison
4. Personnel detained by the US government but not yet charged with a crime or arrested

9-50. Military prisoners are authorized care under all of the following conditions EXCEPT when

1. their discharge has been executed but their sentence has not expired
2. they are on leave, awaiting discharge
3. they require continued hospitalization after their discharge
4. they have been sentenced under the UCMJ only

9-51. Child abuse and spouse neglect is covered in what program?

1. SAVI
2. Family Advocacy
3. Risk Management
4. Child and Spouse Protective Services

9-52. The Decedent Affairs Program consists of the search, recovery, identification, care, and disposition of remains of deceased personnel for whom the Department of the Navy is responsible.

1. True
2. False

9-53. The Casualty Assistance Calls program is administered by the which of the following commands?

1. Commander, Naval Medical Command
2. Commander, Naval Military Personnel Command
3. Office of Medical Affairs
4. Commanding Officer, Naval Hospital

9-54. The Casualty Assistance Calls offier assists the next of kin (NOK) with which of the following item(s)?

1. Disposition of remains
2. Survivor benefits
3. Obtaining the rights and privileges that the NOK is entitle to
4. All of the above

9-55. Which of the following programs can only be activated upon the enactment of special legislation?

1. Return of Remains Program
2. Concurrent Return Program
3. Graves Registration Program
4. Current Decedent Affairs Program

A. Current Decedent Affairs Program
B. Casualty Assistance Calls Program
C. Concurrent Return Program
D. Graves Registration Program

IN ANSWERING QUESTIONS 9-56 THROUGH 9-59, SELECT FROM THE ABOVE LIST THE PROGRAM THAT MOST CLOSELY RELATES TO THE STATEMENT IN THE QUESTION.

9-56. Provides for the search, recovery, evacuation, initial identification, and burial in temporary cemeteries when tactical situation does not permit concurrent return.

1. A
2. B
3. C
4. D

9-57. Provides professional mortuary services, supplies, and related services incident to care and disposition of remains.

1. A
2. B
3. C
4. D

9-58. Is not identified as part of the Decedent Affairs Program.

1. A
2. B
3. C
4. D

9-59. May be activated to support large numbers of military personnel committed to a strategic area.

1. A
2. B
3. C
4. D

9-60. The personnel casualty report of an active duty Navy member shall be submitted by

1. telegram
2. routine precedence message
3. speedletter
4. priority message

9-61. Within CONUS, who is responsible for ensuring the next of kin is notified of a member's death?

1. Office of Medical Affairs
2. The member's commanding officer
3. Naval Military Personnel Command
4. Commander, Naval Medical Command

9-62. The commanding officer will write a condolence letter to the NOK within _____ hours of the death.

1. 24
2. 36
3. 48
4. 72

9-63. When search, recovery, and identification operations continue for more than 36 hours, a progress report will be made to BUMED and MEDDEN Affairs every _____ hours.

1. 8
2. 12
3. 24
4. 36

9-64. After serving all identification purposes, the personal effects of a deceased naval member are disposed of as directed in the

1. NAVSUP Manual
2. Manual of the Medical Department
3. Naval Military Personnel Manual
4. JAGMAN

9-65. Who will be requested to provide an identification specialist to examine unidentified remains?

1. Naval Military Personnel Command
2. Commander, Naval Medical Command
3. Geographic command
4. Naval Office of Medical/Dental Affairs

9-66. What is the minimum number of projected deaths per year required for awarding contracts by naval activities for procuring mortuary services within CONUS?

1. 15
2. 10
3. 8
4. 5

9-67. To minimize cellular deterioration, remains should be refrigerated at _____ C.

1. 0° to 2.2°
2. 2.2° to 4.4°
3. 4.4° to 6.6°
4. 6.6° to 8.8°

9-68. How many copies of DD 2064 must accompany remains being transferred from an overseas activity to a CONUS point of entry?

1. 5
2. 3
3. 2
4. 1

9-69. Once authorization has been obtained for burial at sea, who coordinates the arrangements?

1. Commander, Naval Medical Command
2. Chief of Naval Operations
3. Office of Medical Affairs
4. Appropriate fleet commanders in chief

9-70. If it is desired to transport the uncremated remains by the Air Mobility Command (AMC) within CONUS, prior approval must be obtained from the

1. Commander, Naval Medical Command
2. Chief of Naval Operations
3. Secretary of the Navy
4. Naval Military Personnel Commander

9-71. Problems concerning arrangements for a Navy escort within CONUS should be referred to the

1. Naval Office of Medical/Dental Affairs
2. Decedent Affairs Officer
3. Commandant of the Marine Corps
4. Area commander

9-72. A request by the primary next of kin (PNOK) for a special escort must be referred to

1. Chief of Naval Operations
2. Naval Military Personnel Command
3. Naval Office of Medical/Dental Affairs
4. Commander, Naval Medical Command

9-73. The maximum authorized Government allowance for expenses toward the interment of a deceased active duty member in a private cemetery can be found in which of the following publications?

1. NAVMEDCOMINST 5360.1
2. NAVPERS 15955
3. NAVSUP P-485
4. NAVMED P-5016/NAVMC 2509A

9-74. Who has jurisdiction at the Arlington National Cemetery?

1. State government
2. Department of the Army
3. Department of the Interior
4. Office of Medical Affairs

9-75. When group burials are necessary, round-trip transportation at government expense to the place of burial is provided for

1. the PNOK
2. all members of the immediate family
3. the PNOK and two blood relatives
4. the PNOK and one other close relative