Medication Management Guideline

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by the

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Disclaimer: This Best Practice Guideline is presented as a model only by way of illustration. It has not been reviewed by counsel. Before applying a particular form to a specific use by your organization, it should be reviewed by counsel knowledgeable concerning applicable federal and state health care laws and rules and regulations. This Best Practice Guideline should not be used or relied upon in any way without consultation with and supervision by qualified physicians and other healthcare professionals who have full knowledge of each particular resident's case history and medical condition.

This Best Practice Guidelines is offered to nursing facilities, assisted living communities, residential health care facilities, adult day health services providers and other professionals for informational and educational purposes only.

The Health Care Association of New Jersey (HCANJ), its executers, administrators, successors, and members hereby disclaim any and all liability for damage of whatever kind resulting from the use, negligent or otherwise, of all Best Practice Guidelines herein.

This Best Practice Guideline was developed by the HCANJ Best Practice Committee ("Committee"), a group of volunteer professionals actively working in or on behalf of health care facilities in New Jersey, including skilled nursing facilities, sub-acute care and assisted living providers.

The Committee's development process included a review of government regulations, literature review, expert opinions, and consensus. The Committee strives to develop guidelines that are consistent with these principles:

- Relative simplicity
- Ease of implementation
- Evidence-based criteria
- Inclusion of suggested, appropriate forms
- Application to various long term care settings
- Consistent with statutory and regulatory requirements
- Utilization of MDS (RAI) terminology, definitions and data collection

Appropriate staff (Management, Medical Director, Physicians, Nurse-Managers, Pharmacists, Pharmacy Consultants, Interdisciplinary Care Team) at each facility/program should develop specific policies, procedures and protocols to best assure the efficient, implementation of the Best Practice Guideline's principles.

The Best Practice Guidelines usually assume that recovery/rehabilitation is the treatment or care plan goal. Sometimes, other goals may be appropriate. For example, for patients receiving palliative care, promotion of comfort (pain control) and dignity may take precedence over other guideline objectives. Guidelines may need modification to best address each facility, patient and family's expectations and preferences.

Recognizing the importance of implementation of appropriate guidelines, the Committee plans to offer education and training. The HCANJ Best Practice Guidelines will be made available at www.hcanj.org.

I.   LIMITED SCOPE OF MEDICATION MANAGEMENT GUIDELINE

The HCANJ Best Practice Committee ("Committee") constructed *a limited scope guideline* intended to assist health care providers with the development and implementation of systems and strategies that the Committee believes will reduce medication errors and promote best patient/resident outcomes in health care facilities. (see section III)

A.   Providers interested in expanding their information-base beyond this Guideline are referred to page 33 of this guideline for a list of topic-related internet sites.

B.   This Guideline *does not* include information about the clinically appropriate use of specific medications. It *is not* intended to be used as a resident-specific or medication-specific guideline.

C.   The Guideline assumes that all services are provided in accordance with regulatory requirements and standards of professional practice.

II.   OBJECTIVES

To provide information, tools and systems intended to:

A.   Reduce the incidence of medication errors in health care facilities.

B.   Improve the quality of care and quality of life for adults living or convalescing in health care facilities.

C.   Outline strategies for prescribing, dispensing, delivering, storing, administering and monitoring medications.

1.   Guidelines for psychotropic drug reduction

2.   Guidelines for opiod use (Wash and Utah)

D.   Reduce risk and professional liability.

Note: The term "resident" refers to all of the following: "patient", "resident", "client", "participant"

III. INTENDED USE OF MEDICATION MANAGEMENT GUIDELINE

    A. FACILITIES: This medication management guideline is intended for use by health care facilities and programs, including:

- Sub-acute Care Facilities
- Comprehensive Personal Care Homes
- Skilled Nursing Facilities
- Assisted Living Programs
- Nursing Facilities
- Residential Health Care Facilities
- Assisted Living Communities
- Adult Day Health Facilities
- Hospice Programs

Facilities are encouraged to use this guideline to assist them with the development and establishment of the following:

1. Administrative policies and procedures.
2. Clinical policies and procedures.
3. Roles and responsibilities of staff and committees, including (but not limited to):
   a) Physician, nursing staff and pharmacists
   b) Pharmacy and Therapeutics Committee
   c) Quality Improvement Committee
   d) Safety Committee
4. Design and implementation of operational systems.
5. Employee orientation and training guides.
6. Quality Improvement processes.

    B. PROFESSIONALS

1. *Provider Pharmacist* Pharmacies that provide services to long-term care facilities, assisted living and residential settings (post-acute healthcare settings) are encouraged to use this best practice guideline to establish appropriate pharmacy provider systems including the following:
   a) Design and implement efficient and safe provider pharmacy processes including the receipt and processing of prescriptions, dispensing, delivery, returns and storage of medication.

b) Assist with the design of an efficient and safe medication process within the facility, including procedures for controlled substances and psychotropic medications

c) Establish communication protocols among the provider pharmacy, consultant pharmacist, facility, physicians, residents, families and others.

d) Implement policies and procedures including, but not limited to, the following:

　　1) Receipt of medication orders.

　　2) Creation and implementation of resident records, including Physician Order Sheets (POS), Medication Administration Record (MAR) and Treatment Administration Record (TAR).

　　3) Labeling of medications with appropriate instructions for use and precautions.

　　4) Safe protocols for filling prescriptions.

　　　　a. Monitoring drug regimens

　　　　b. Psychotropic Medication Reduction Protocols

　　　　c. Opioid Guidelines

　　5) Safe protocols for handling returned and controlled medications.

e) Participation in the Pharmacy and Therapeutics and Quality Improvement Committees.

2. *Consultant Pharmacist.* While not required in all settings or all states, it is a suggested best practice to include regularly scheduled reviews by a pharmacy consultant.

a) *Consultant Pharmacists* are encouraged to use this Best Practice Guideline to assist with the adoption of appropriate standards within their client facilities, in collaboration with the respective provider pharmacy, the facility and the Medical Director or primary physicians.

b) *Pharmacy Consultants* provide oversight of medication-related processes including, but not limited to, the following:

    1) Development and implementation of policies and procedures, including procedures for controlled substances.

    2) Review and monitoring of all resident drug regimens.

    3) Recommendations for improvement to processes, policies, procedures, etc.

    4) Direct or indirect participation with Interdisciplinary Care Plan (IDCP team and process.

    5) Inspection of medication storage areas and recommendations.

    6) Training and monitoring of licensed nursing and medical staff performance.

    7) Serving as an active member of the Pharmacy and Therapeutics Committee, Infection Control Committee, and Quality Improvement Committee.

    8) Acting as a resource for medication management systems.

    9) Review of procedures for proper disposal and disposition of medications.

3. *Medical Directors.* Medical Directors are encouraged to use the best practice guideline to ensure safe and appropriate medication management standards are maintained by:

    a) Reviewing prescriber and facility practices.

    b) Assisting in the development, implementation and enforcement of medication-related policies and procedures.

    c) Reviewing provider and pharmacy consultant reports and supporting and initiating appropriate action.

    d) Reviewing prescriptive practices of physicians and other practitioners and providing constructive feedback as necessary.

e) Promoting nursing and physician education.

f) Reviewing adverse medication events and recommending initiatives to reduce or eliminate future adverse events.

4. *Physicians and Other Prescribing Practitioners*

a) Follow the Board of Medical Examiners regulations.

b) Provide accurate and complete orders including indications for use.

c) Address Pharmacy Consultant recommendations.

d) Follow all medication-related policies, regulations and standards of care.

IV. DEFINITIONS

Adverse Consequence An unpleasant symptom or event that is due to or associated with a medication, such as impairment or decline in an individual's mental or physical condition or functional or psychosocial status. It may include various types of adverse drug reactions and interactions (e.g., medication-medication, medication-food, and medication-disease).

Adverse Drug Reaction (ADR) A form of adverse consequences. It may be either a secondary effect of a medication that is usually undesirable and different from the therapeutic effect of the medication or any response to a medication that is noxious and unintended and occurs in doses for prophylaxis, diagnosis, or treatment. The term side effect is often used interchangeably with ADR; however, side effects are but one of five ADR categories, the others being hypersensitivity, idiosyncratic response, toxic reactions, and adverse medication interactions. A side effect is an expected, well-known reaction that occurs with a predictable frequency and may or may not constitute an adverse consequence.

Adverse Medication Event Includes adverse consequences, adverse drug reactions and medication errors.

Anticholinergic Side Effect An effect of a medication that opposes or inhibits the activity of the parasympathetic (cholinergic) nervous system to the point of causing symptoms such as dry mouth, blurred vision, tachycardia, urinary retention, constipation, confusion, delirium, or hallucinations.

Behavioral Interventions Individualized non-pharmacological approaches (including direct care and activities) that are provided as part of a supportive physical and psychosocial environment, and are directed toward preventing, relieving, and/or accommodating a resident's distressed behavior.

Clinically Significant Refers to effects, results, or consequences that materially affect or are likely to affect an individual's mental, physical, or psychosocial well-being either positively by preventing, stabilizing or improving a condition or reducing risk, or negatively by exacerbating, causing, or contributing to a symptom, illness, or decline in status.

Distressed Behavior Behavior that reflects individual discomfort or emotional strain. It may present as crying, apathetic or withdraw behavior or as verbal or physical actions such as: pacing, cursing, hitting, kicking, pushing, scratching, tearing things, or grabbing others.

Dose The total amount/strength/concentration of a medication given at one time or over a period of time. The individual dose is the amount/strength/concentration received at each administration. The amount received over a 24-hour period may be referred to as the daily dose.

Excessive Dose The total amount of any medication (including duplicate therapy) given at one time or over a period of time that is greater than the amount recommended by the manufacturer's label, package insert, current standard of practice for a resident's age and condition, or clinical studies or evidence-based review articles that are published in medical and/or pharmacy journals and that lacks evidence of: a review of the continued necessity of the dose; attempts at, or consideration of the possibility of, tapering a medication; and a documented clinical rationale for the benefit of, or necessity for, the dose or for the use of multiple medications from the same pharmacological class.

Duplicate Theory Refers to multiple medications of the same pharmacological class/category or any medication therapy that substantially duplicates a particular effect of another medication that the individual is taking.

Duration Is the total length of time the medication is being received.

Excessive Duration Means medication is administered beyond the manufacturer's recommended time frames or facility-established stop order policies, beyond the length of time advised by current standards of practice, clinical practice guidelines, clinical studies or evidence-based review articles, and/or without either evidence of additional therapeutic benefit for the resident or clinical evidence that would warrant the continued use of the medication.

Extrapyramidal Symptoms (EPS) Are neurological side effects that can occur at any time from the first few days of treatment to years later. EPS includes various syndromes such as:

Akathisia, which refers to a distressing feeling of internal restlessness that may appear as constant motion, the inability to sit still, fidgeting, pacing, or rocking.

Medication-induced Parkinsonism, which refers to a syndrome of Parkinson-like symptoms including tremors, shuffling gait, slowness of movement, expressionless face, drooling, postural unsteadiness and rigidity of muscles in the limbs, neck and trunk.

Dystonia, which refers to an acute, painful, spastic contraction of muscle groups (commonly the neck, eyes and trunk) that often occurs soon after initiating treatment and is more common in younger individuals.

Gradual Dose Reduction (GDR) The stepwise tapering of a dose to determine if symptoms, conditions, or risks can be managed by a lower dose or if the dose or medication can be discontinued.

Indications For Use Is the identified, documented clinical rationale for administering a medication that is based upon an assessment of the resident's condition and therapeutic goals and is consistent with manufacturer's recommendations and/ or clinical practice guidelines, clinical standards of practice medication references, clinical studies or evidence-based review articles that are published in medical and/or pharmacy journals.

Insomnia Is the inability to sleep characterized by difficulty falling asleep, difficulty staying asleep, early waking, or non-restorative sleep, which may result in impaired physical, social, or cognitive function.

Medication Error Is any preventable event that may cause or lead to inappropriate medication use or resident harm while the medication is in the control of the health care professional or resident. Such events may be related to professional practice, health care products, procedures, and systems including: prescribing, order communication, product labeling, packaging and nomenclature, compounding, dispensing, distribution, administration, education, monitoring, and use. Includes "near miss."

"Near Miss" Medication Error An occurrence that would have otherwise resulted in a medication error where it not for the pre-error identification and intervention.

Medication Interaction Is the impact of another substance (such as another medication, nutritional supplement including herbal products, food or substances used in diagnostic studies) upon a medication. The interactions may alter absorption, distribution, metabolism, or elimination. These interactions may decrease the effectiveness or increase the potential for adverse consequences.

Medication Regimen Review (MRR) Is a thorough evaluation of the medication regimen by a pharmacist, with the goal of promoting positive outcomes and minimizing adverse consequences associated with medication. The review includes preventing, identifying, reporting, and resolving medication-related problems, medication errors, or other irregularities in collaboration with other members of the interdisciplinary team (IDT).

Monitoring Is the ongoing collection and analysis of information (such as observations and diagnosis test results) and comparison to baseline data in order to:
Ascertain the individual's response to treatment and care, including progress or lack of progress toward a therapeutic goal;
Detect any complications or adverse consequences of the condition or of the treatments; and
Support decisions about modifying, discontinuing, or continuing any interventions.

Neuroleptic Malignant Syndrome (NMS) Is a syndrome related to the use of medications, mainly antipsychotics, that typically present with a sudden onset of diffuse muscle rigidity, high fever, labile blood pressure, tremor, and notable cognitive dysfunction. It is potentially fatal if not treated immediately, including stopping the offending medications.

Non-pharmacological Interventions Refers to approaches to care that do not involve medications, generally directed towards stabilizing or improving a resident's mental, physical or psychosocial well-being.

Off Label antipsychotic medication Refers to the use of any antipsychotic or other psychoactive medications for the treatment and or symptom reduction for diagnoses not intended by the manufacturer or federal guidelines.

Psychotherapeutic Medication Any medication used for managing behavior, stabilizing mood or treating psychiatric disorders.

Reconciliation Medication reconciliation is the process of comparing a resident's medication orders to all of the medications that the resident has been taking, evaluating the medications and determining (in consultation with other prescribing professionals) the appropriate medication regimen.

Risk Point is an identified stage of a process that has had an elevated potential for the occurrence of an adverse medication event.

Side Effect See page 8, Adverse Drug Reaction (ADR)

Serotonin Syndrome Is a potentially serious clinical condition resulting from over stimulation of serotonin receptors. It is commonly related to the use of multiple serotonin-stimulating medications (e.g., SSRI's, SNRI's, triptans, certain antibiotics). Symptoms may include restlessness, hallucinations, confusion, loss of coordination, fast heart beat, rapid changes in blood pressure, increased body temperature, overactive reflexes, nausea, vomiting and diarrhea.

Tardive Dyskinesia Refers to abnormal, recurrent, involuntary movements that may be irreversible and typically present as lateral movements of the tongue or jaw, tongue thrusting, chewing, frequent blinking, brow arching, grimacing, and lip smacking, although the trunk or other parts of the body may also be affected.

UAP (Unlicensed Assistive Personnel) Recognizing that some levels of health care have UAPs, it is understood that this Best Practice is written in accordance with and exceeding many state regulations which permit UAPs. HCANJ recommends that UAPs work under RN delegation. The RN will conduct on-going competencies and continuous evaluation of all aspects of the UAPs involvement in managing/assisting with medication administration. For suggestions for RN delegation see N.J.A.C. 8:36 11.5. V.

V.   RISK POINTS AND RISK REDUCTION STRATEGIES
   A. Risk Point: Admission, Transfer Orders, and Discharge to Home
      1. Admission From Home: Reconcile proposed new orders with past medication usage.
         a) Review labels of all medication containers from home including over-the-counter medications and supplements.
         b) Review all community physician documentation available.
         c) Clarify any discrepancies or questionable orders with original source as necessary.
      2. Admissions/Transfers From Hospitals and Other Facilities: Reconcile
         a) Obtain and review copy of MARs/TARs, transfer form, and Physician's Order Sheets (POS). Verify MAR/TAR information with transfer form and POS if available. Do not rely solely on transfer form.
         b) Clarify all medication orders with clinical staff from transferring hospital/ facility when necessary.
         c) See item 5. below
      3. Readmissions:
         a) Compare transfer orders and information with previous medical record and clarify any discrepancies. Do not administer previously ordered medications without a renewal order.
      4. Consultant Initial Review:
         a) Initial orders faxed [fax original documents, not copies] to pharmacy consultant for timely review and written comments which are faxed back to the facility for inclusion in the medical record.
            (1) Facility communicates the following information to the pharmacy consultant: resident's full name and date of birth, sex, weight, allergies, full medication orders, doses, diagnosis (indications for use) and laboratory reports.

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5. Transfer Document: Reconcile
   a) Transfer forms will include printed, up-to-date medication orders with related diagnosis (indications for use) and relevant laboratory data.
      (1) Inter-facility/program transfer form signed by physician.
   b) Transfer form will include current and historic influenza and pneumonia vaccine information.
   c) Transfer documents will include up-to-date patient/resident care plan with physician's orders.
   d) Receiving facility/program nurse/physicians or pharmacists will review medications and immunization information with resident and/or knowledgeable and authorized resident representative to confirm accuracy of information.
      (1) Ask family to bring at home medications, supplements, and over-the-counter drugs to the facility to reconcile past medications usage with proposed, new orders.
   e) Receiving facility/program will clarify all medication orders by cross-checking medications shown on MAR, POS and Transfer Form. Contact the clinical staff of the transferring hospital/facility to clarify the orders as necessary.
   f) Reconcile proposed, new orders with past medication usage.
   g) Transfer protocol for intra-facility/program transfers will include a verbal communication of the resident's current physical and mental status, review of the medications and the care plan. Receiving nurse will document evidence of the clinical report.
6. Discharge To Home
   a) Reconcile medications: Prior to discharge to home, family will bring all at-home medications (including OTC and herbal substances) to the facility/ program for the physician/nurse/pharmacist to review along with current medications. Discharge orders, prescriptions, and instructions to resident/ family should clearly identify which medication should be continued at home.
      (1) Send discharge medication and care plan information to community physician and/or home care program.
      (2) Provider pharmacy sends resident/medication specific drug information document to facility.

(a) Facility gives drug information document to resident/family with list of medications to be taken at home. Educate resident and family about therapeutic benefits, side effects and adverse consequences.

B. Risk Point: Telephone Orders for Medication
  1. Except for telephone orders, verbal orders should not be accepted, except in emergencies.
  2. Risk Reduction Strategies:
    a) Facility informs the prescriber of the following information:
      (1) Resident's full name, age, sex and weight
      (2) Diagnoses
      (3) Drug and food allergies
      (4) All prescribed current medications
      (5) Recent signs and symptoms
      (6) Recent laboratory data
    b) Read Back: receiving nurse will listen to prescriber, write down orders on appropriate document and read back the resident's full name and prescription orders as the nurse has written them. Prescriber will verbally verify accurate read back.
  3. Telephone orders are faxed (fax original document, not copy) to the prescriber for prescriber review, signature and timely return fax.
    a) Prescriber will immediately telephone facility/program if faxed orders are incorrect and in need of adjustment.
  4. Educate staff to be watchful of sound-alike medications. Post facility-specific sample list at all nurses/medication stations. See current sample list of the Institute for Safe Medication Practices (ISMP) at www.ismp.org.

C. Risk Point: Written Orders for Medication
  1. Written orders include signed orders that may be handwritten, computer generated or faxed.
  2. Risk Reduction Strategies:
    a) Orders are entered on documents that identify the resident's complete first and last name.
    b) Orders are dated and timed as written.
    c) Orders include full name of medication, dose, route of administration, time(s) of administration, related diagnoses/indications for use, and duration.
    d) Avoid abbreviations. Alternatively, use the Institute for Safe Medication Practices (ISMP) current guidelines at www.ismp.org

f) Review and compare orders with the list of dangerous drug-to-drug interactions and high risk drugs.

g) Implement facility approved medication-specific laboratory monitoring protocols.

h) Implement facility-defined protocols for assuring accurate monthly review of orders and MAR/ TARs.

i) Nurse and/or pharmacist will note all illegible, incomplete or otherwise questionable orders and immediately seek clarification from the prescriber before transcribing or dispensing the medication orders.

j) Educate staff to be watchful of look-alike medications. Post facility-specific list at all nurses/medication stations. See current list of ISMP at www.ismp.org.

k) Fax original documents, not copies.

D. Risk Point: Transcription of Orders for Medication

1. Transcription of orders means nurses or other authorized staff write the orders on the MAR or TAR.

2. Risk Reduction Strategies:

a) Nurse/authorized designated transcriber enters the complete order onto the MAR/TAR with the prescriber's order sheet in view of and adjacent to the MAR/TAR. Leave a blank space between each medication order.

(1) Second nurse/authorized transcriber reviews the order transcription by verifying that the information in the MAR/TAR is the same as the order. Note: Facility/program protocols should specify the process for the transcribing and verifying staff to sign or initial the order sheet and the MAR/TAR to establish the identity of who completed the transcription and verification process.

3. Facility/program protocols may include a process for a designated staff person to review all orders for the previous 24 hour period, and confirm that all orders were accurately transcribed.

4. Consult facility/program's "like names alert" policy to assure correct resident's name.

E. Risk Point: Provider Pharmacy Receipt of Medication Orders

1. Risk Reduction Strategies:

a) Information shared with the provider pharmacy will include resident's full name, age or date of birth, sex, weight, allergies, diagnoses (indications for use), and pertinent laboratory reports.

b) Complete, legible medication orders include the resident's full name, date, drug, dose, route times of administration, and duration.

        c) Provider pharmacy establishes resident-specific medication regimen.

          (1) Assess for drug interaction and otherwise review appropriateness of the Medication regimen.

          (2) Immediately notify prescriber and facility if potential drug interaction or the potential for harm from medications is identified.

F. Risk Point: Provider Pharmacy Dispensing of Medication

    1. Risk Reduction Strategies:

        a) Provide precautionary instructions and parameters for use on medication label and/or MAR/TAR.

        b) Provide individual medication information sheet with therapeutic use, side effects and adverse consequences.

        c) Package medication in a manner to promote a safe and efficient medication administration system.

        d) When generating Physician Order Sheets (POS), include all facility approved, medication-specific protocols for laboratory reports and other clinical measurements.

        e) Comply with established facility protocols for timely, safe delivery and receipt of medication.

G. Risk Point: Receipt of Medications at Facility/Program

    1. Risk Reduction Strategies:

        a) Match all medications with corresponding records.

        b) Properly safeguard medications. Place in proper location, such as locked cart, locked room, medication refrigerator, and controlled drug inventory area.

H. Risk Point: Provider Pharmacy Restocking of Medication

    1. Risk Reduction Strategies:

        a) Licensed pharmacist to verify correct name and dose of returned medications.

        b) Two (2) staff members will verify correct container for each medication and will complete accurate restocking process.

I. Risk Point: Medication Administration

    1. RIGHT Patient, RIGHT Medication, RIGHT Dose, RIGHT Route, RIGHT Time, RIGHT Documentation

    2. Risk Reduction Strategies:

        a) Strict compliance with established protocols, including:

          (1) New medication order - *First Dose*:

            (a) Check POS to confirm accuracy of MAR/TAR before administering first dose.

      (b) Read and compare MAR/TAR and medication labels three (3) time's:

        (i) Initial view.

        (ii) At pouring.

        (iii) After pouring.

b) Use two (2) forms of resident identification, including:

    (1) What is your name?

    (2) ID bracelet.

    (3) Photo (update photo annually).

    (4) Staff verification.

    (5) Follow "like names alert" policy to avoid similar resident's name errors.
       Note: Do not use room or bed number.

c) Observe for expected therapeutic effects, side effects, and adverse consequences. Communicate side effects and adverse consequences to supervisor and prescriber.

    (1) May "hold" medication in accordance with professional standards.

d) Follow precautions and assess and record clinical parameters.

    (1) Administer and observe as resident takes medication.

    (2) Document the process.

e) Follow appropriate infection control standards.

J. Risk Point: Monitoring Therapeutic Benefits and Adverse Consequences of Medication

  1. Risk Reduction Strategies:

a) Consult readily available medication information reference sources that may include:

    (1) Current Physician's Desk Reference (PDR)

    (2) Current drug handbook

    (3) Computer information system

    (4) Pharmacy provided information sheets

    (5) ISMP (Institute for Safe Medication Processes)

    (6) Beers Criteria/Beers list

    (7) Other references

b) Off label use of antipsychotic medications with goal of 15% reduction

c) Increased education and use of non-pharmaceutical interventions

d) Advise prescriber of identified adverse consequences or failure to obtain therapeutic benefits.

e) Follow facility protocols for high risk medications and laboratory monitoring.

f) Follow facility protocols for avoiding potentially dangerous drug-to-drug and drug/food interactions.

g) Identify resident-specific non-pharmacologic interventions (behavioral) that are considered and used instead of, or in addition to, psychotherapeutic medications.

h) Whenever there are changes in the resident's mental or physical functional status, "Think Medications." Clinical team will evaluate medication regimen as a potential contributing factor and revise medication orders as appropriate.

K. Risk Point: Stock, Back-up Box, and Emergency Box Medications

1. Risk Reduction Strategies:

a) Facility identifies specific contents and protocols for use.

(1) Review and revise contents at least annually.

2. Monthly monitor stock levels and expiration dates and restock as necessary.

L. Risk Point: Resident Self-Administration of Medication Risk Reduction Strategies:

1. Carefully assess capacity of resident to safely store and self-administer medication.

a) Reassess resident capacity to self-administer at least quarterly.

2. Educate resident regarding the following:

a) Indications for use and expected benefits.

b) Method of administration.

c) Side effects and adverse consequences.

3. Provide for proper storage.

4. Staff will monitor and record indications of therapeutic benefits, side effects and adverse events, and keep prescriber informed.

M. Risk Point: Resident/Family Brings Medications From Home

1. Risk Point: Risk Reduction Strategies:

a) Limit medications from home brought to facility.

b) Educate residents and families about facility policy on medications from home.

(1) Include policy in admissions agreement.

c) Require that medications from home be properly labeled and packaged, including physician provided samples.

VI. QUALITY IMPROVEMENT PROCESS ADDRESSES THE FOLLOWING:
  A. Assurance of written protocols for pharmacy and medication systems.
    1. System to include accountability of prescriber, facility staff, pharmacy provider and pharmacy consultant.
    2. Protocols to include methods to evaluate competency of staff, identification of learning needs, and the provision of appropriate education to establish and maintain staff competency.
  B. Protocols for identification, reporting and analysis of adverse medication events and "near misses."
    1. Analysis of Adverse Drug Reactions (ADR) to include probability, preventability and severity.
    2. Medication errors are placed in categories to facilitate analysis.
    3. Conduct root cause analysis of errors. Review and revise policies, procedures and protocols to reduce or eliminate likelihood of similar errors.
  C. Implementation by Medical Director of defined protocols to monitor prescribing patterns of the medical staff and medical staff education and/or other corrective actions as appropriate.
    1. Provider pharmacy produces summary reports of patterns of prescribing for each member of the medical staff.
    2. Medication order checklist audit tool.
  D. Protocols for consultant pharmacist to observe medication administration of newly-employed staff authorized to administer medication and to periodically observe staff on all shifts.
    1. Conduct an analysis of observations, review medication administration policies and procedures and identify and implement corrective measures as indicated.
  E. Define process for analysis of available information and selective changes in policy, procedures, protocols and education intended to address identified opportunities to improve quality, including controlled drug procedures.
  F. Frequent review and careful monitoring of anti-coagulation therapy and other medication-related laboratory test monitoring protocols.
  G. Maintain confidential documentation of Q.I. monitoring, reviews, analysis, conclusions and modifications in policies, procedures and protocols.

VII. EDUCATION
  Facilities/programs will develop education program content specific to their policies, procedures and protocols. Staff includes those who transcribe, administer and monitor medication.

A. Staff Education
1. Orientation.
2. Periodic reviews and updates.
3. Re-education following changes in policies, procedures and protocols.
4. Readily available, current drug reference text and/or PDR.

B. Resident/Family Education
1. Upon admission.
2. On-going as indicated.
3. Self-medication information.
4. Upon planned discharge.

C. Prescriber Education
1. Upon joining, medical "personnel" or otherwise approved attending or consulting prescriber status.
2. Periodic reviews and updates, including issues identified by consultant and provider pharmacists.
3. Re-education following changes in policies, procedures and protocols.

D. Education Process
1. Education may occur as one-on-one, on-site or off-site training, via internet learning or self-study.
2. Readjust education plans in response to opportunities to improve as identified through the Q.I. Process.
3. Maintain all education records including topics and attendance.
   a) Individual employee education record will include date, duration and topic.

SAFETY RELATED RECOMMENDED POLICIES
POLICIES TO INCLUDE:

Stop Order
- Medication Errors
- Adverse Drug Reactions
- Laboratory Monitoring
- Anticoagulation

Controlled Drugs
- Self Medication
- Abbreviations
- Read Back
- High Risk Medications

CONTROLLED DRUGS - Additional Steps to Consider:

1. New orders: confirmation for C II, faxing after consulting current Federal Regulations

2. Refills: labels should be used (nurses should not hand write), consider having supervisor fax all refills for controlled on separate sheet (not with other med refills).

3. Receipt of drugs: consider having supervisor receive all controlled, check that seal is intact and count all drugs, and note receipt in entry logbook or other accountability system.

4. One licensed nurse should be responsible for putting controlled drugs in carts.

5. Consider having a log to count all sheets so bingo cards cannot be diverted along with their sheets. Licensed Nurse to add to count when drugs are added to carts.

6. Supervisor should remove drugs for destruction and update the sheet count.

7. Keep destruction log. Enter drugs to be destroyed in log and keep log in location other than where the drugs are kept. Two (2) nurses or pharmacists need to count drugs to be destroyed and sign log.

8. Assign responsibility for back-up controlled substances. Should be counted every shift by 2 nurses

9. All completed count sheets (drugs used up or destroyed) to be matched to entry log

10. When counting at change of shift, always have both licensed nurses present and counting. Count should be done also when leaving cart assignment (hand over the keys) during shift.

11. Periodically review (nursing and/or pharmacy consultant) the use of PRN controlled substances, looking for trends.

12. Keep list of Prohibited Abbreviations current: qd, qod, hs, U, IU, .X, X.0, MS, MSO4, MgSO4, ug, OD, OS, OU, AD, AS, AU, tiw.

Medication Reconciliation Form

Resident Name_____/_____ Living Qtr. Room #_____
                               (Last)   (First)

Birth Date ____/____/____ | Sex ☐M ☐F | Height _____ in. | Weight _____lb.

Copy given to:
☐Physician
☐Resident
☐Pharmacy Provider
☐Family
☐Other:_____
☐Other:_____

The information on this form was provided by:

☐Resident:	☐Verbally	☐Written	
☐Family:	☐Verbally	☐Written	Name:
☐Representative:	☐Verbally	☐Written	Name:
☐Other:	☐Verbally	☐Written	Name:

Imminuzation Information

Influenza	☐Yes	Date___/___/___	☐No
Pneumococcal	☐Yes	Date___/___/___	☐No
Hepatitus B	☐Yes	Date___/___/___	☐No
Other:		Date___/___/___	
Other:		Date___/___/___	

ALLERGIES / INTOLERANCE / REACTIONS [If no allergies, write "none" in box 1]

Food & Drug Allergy / Intolerance	Reaction(s)
1	
2	
3	

MEDICATIONS PRIOR TO THIS RECONCILIATION

Reviewer Instructions:
1. Physician, pharmacist, or nurse reviews all past and current medications with resident/representative. Clarify with original source as appropriate.
2. Provide this document to current physicians/prescribers for comprehensive review.
3. Obtain current written orders for medications on appropriate forms.
4. If discharge to home, give resident/representative list of medications to be continued at home. Do not use abbreviations on discharge orders.

Instructions for completing this section:
1. **Prohibited Abbreviations:** qd, qod, hs, U, IU, .X, X.0, MS, MSO4, MgSO4, ug, OD, OS, OU, AD, AS, AU, tiw
2. **List all** medications, nutritionals, herbal supplements, pumps, patches, or inhalers, drops, sprays, ointments used prior to this reconciliation or admission.

	MEDICATION (include strength)	DIRECTIONS (Dose, Route, Freq.)	INDICATION (Reason)	LAST DOSE (Date / Time)	CONTINUE MEDS ? ADMIT	POST/DISCH	RESUME (Date / Time)
	Example: Aspirin	81 mg orally 1 x per day	heart	yesterday			
1					☐Yes ☐No	☐Yes ☐No	DATE___/___/___ TIME_____ ☐A ☐P
2					☐Yes ☐No	☐Yes ☐No	DATE___/___/___ TIME_____ ☐A ☐P
3					☐Yes ☐No	☐Yes ☐No	DATE___/___/___ TIME_____ ☐A ☐P
4					☐Yes ☐No	☐Yes ☐No	DATE___/___/___ TIME_____ ☐A ☐P
5					☐Yes ☐No	☐Yes ☐No	DATE___/___/___ TIME_____ ☐A ☐P
6					☐Yes ☐No	☐Yes ☐No	DATE___/___/___ TIME_____ ☐A ☐P
7					☐Yes ☐No	☐Yes ☐No	DATE___/___/___ TIME_____ ☐A ☐P
8					☐Yes ☐No	☐Yes ☐No	DATE___/___/___ TIME_____ ☐A ☐P
9					☐Yes ☐No	☐Yes ☐No	DATE___/___/___ TIME_____ ☐A ☐P
10					☐Yes ☐No	☐Yes ☐No	DATE___/___/___ TIME_____ ☐A ☐P

Resident: Please bring this medication record with you for your visit to your physician's office and to all health care facilities / programs. Carry a copy with you at all times.

Medication Occurrence/Error Report

RESIDENT

Resident Name_____ Age_____ Living Quarters Room #_____
                                (Last)   (First)

Physician Name:_____

Pharmacy Consultant:_____

DETAILS

1. Date of Occurrence _____/_____/_____   Time of Occurrence: _____ ☐AM ☐PM

2. Location:where was the Resident when it occurred:_____

3. Staff involved: ☐RN ☐LPN ☐Medication Aide ☐Resident ☐Other:_____

4. Medical Diagnosis:_____

   _____

5. Prescribed Medication: Name:_____

   Dose:_____ Route:_____

6. Response Observed: ☐No Adverse Effect   ☐Minor Adverse Effect   ☐Major Adverse Effect

   Describe Adverse Effect:_____

   _____

7. Resident condition prior to occurrence:(Comment)_____

☐Alert/normal	☐Depressed	☐Other:
☐Confused	☐Refuses to cooperate	
☐Agitated	☐Lethargic	
☐Unconscious	☐Language barrier	

8. Medication / Dose / Route Administered: Variance:_____

   Explain:_____

☐Medication Missing	☐Duplicate / Extra dose given	☐Wrong Resident
☐Wrong Medication	☐Time variance (>1hour)	☐Other:
☐Medication *given but not charted*	☐Wrong Route	
☐Medication *charted but not given*	☐Wrong Dose	

DETAILS (continued)   Medication Occurrence/Error Report side 2 of 2

9. Procedural Variance: _____

   Explain: _____

☐ Improper identification of Resident   ☐ Medication not available

☐ Transcription error   ☐ Allergies / labs not considered prior to prescribing

☐ Wrong dose in package   ☐ Failure to document B/P or AP

☐ Medication expired   ☐ Failure to document PRN results

☐ Omission of medication   ☐ Other:

MEDICATION ERROR CATEGORIES			
	☐	Category A:	Circumstances or events that have the capacity to cause error.
	☐	Category B:	An error occurred but the error did not reach the resident.
	☐	Category C:	An error occurred that reached the resident but did not cause resident harm.
	☐	Category D:	An error occurred that reached the resident and required monitoring to confirm that it resulted in no harm to the resident and/or required intervention to preclude harm.
	☐	Category E:	An error occurred that may have contributed to or resulted in temporary harm to the resident and required intervention.
	☐	Category F:	An error occurred that may have contributed to or resulted in temporary harm to the resident and required hospitalization.
	☐	Category G:	An error occurred that may have contributed to or resulted in permanent harm.
	☐	Category H:	An error occurred that required intervention necessary to sustain life.
	☐	Category I:	An error occurred that may have contributed to or resulted in a resident's death.
		NOTE:	An "error of omission" reaches the resident (Category C or higher).

10. Event occurred due to: ☐ Prescribing   ☐ Dispensing   ☐ Administering   ☐ Other _____

11. Person(s) involved with occurrence: Name/Title _____,

   Name/Title: _____, Name/Title: _____

NOTIFICATION—Physician

12. Physician Called: _____ DATE: ___/___/___ TIME: ____ ☐ AM ☐ PM
                   (Name)

13. Physician Response: _____

_____

SIGNATURES

Report completed by _____ Date ___/___/___
                   (Name)   (Title)

Report reviewed by _____ Date ___/___/___
               (Nursing Administration Signature)

Report reviewed by _____ Date ___/___/___
               (Administrator Signature)

Medical Director Signature _____ Date ___/___/___

Provider Pharmacy Report

Resident Name_____
(Last)   (First)

Age_____   Living Quarters Room #_____

Physician Name_____

Check one of the following:

☐   Medication dispensing Error
☐   Wasted Control Drug Report
☐   Other:_____

RESIDENT DIAGNOSES

MEDICATION INVOLVED

PHYSICIAN'S ORDERS

Medication order *was correctly transcribed* on: ☐Medication Administration Sheet ☐Physician Pharmacy's Order Sheet

INCIDENT DESCRIPTION AND CAUSE

Describe *the incident*:   Describe the *cause of the incident*:

Adverse effects:

PERSON INVOLVED WITH THE INCIDENT

Name: DATE: ____/____/___   TIME: _____   ☐AM ☐PM

TO WHOM WAS INCIDENT INITIALLY REPORTED

Name: DATE: ____/____/___   TIME: _____   ☐AM ☐PM

WHO WAS NOTIFIED AND THEIR INSTRUCTIONS

Physician Name_____   DATE: ____/____/___   TIME: _____   ☐AM ☐PM

Physician Instructions:

Provider Pharmacist Name_____   DATE: ____/____/___   TIME: _____   ☐AM ☐PM

Provider Pharmacist Comments:

SPECIFIC CORRECTIVE ACTION TAKEN OR RECOMMENDED

SIGNATURES

*Pharmacist Signature*_____   Date: ____/____/___

Director of Nursing Signature_____   Date: ____/____/___

Medical Director Signature_____   Date: ____/____/___

Administrator Signature_____   Date: ____/____/___

Medication Occurrence/Error Tracking Checklist
Monitoring the Error Tracking Practice

	Yes	No
1. Medication error reports are completed for each occurrence per facility policy?		
2. Medication error statistics are routinely reported to the Pharmacy Committee, QA/Risk Management, physicians and others as needed?		
3. Medication errors are reviewed and analyzed to identify trends?		
4. All medication errors are analyzed to determine the root cause of the error?		
5. Documentation is maintained concerning the outcome of investigations of medication errors?		

[Note: All "No" responses require review of the Medication Error Report policy and re-education of the staff.]

Individual completing this checklist:

Name_____ Title_____
                    (Last)   (First)

Unit_____

Reviewer:

Name_____ Title_____

Review Comments (include review of systems): _____

_____

_____

_____

Review Date: Date:_____

Administrator Signature_____ DATE ____/_____/____

Medical Director Signature_____ DATE ____/_____/____

Medication Order/Prescription Tracking Checklist
Monitoring the Order/Prescription Practices of Professional and/or Issue Under Review

Professional Being Reviewed: _____ Title:_____

	Yes	No	N/A
1. All orders/prescriptions include the patient's name?			
2. The prescriber is made aware of the patient's allergies?			
3. The prescriber is made aware of pertinent lab values that could impact the appropriateness of the medication?			
4. The prescriber is made aware of pre-existing conditions that could impact the appropriateness of the medication?			
5. The order/prescription includes the diagnosis or the indication for use?			
6. The order/prescription includes the generic name of the drug?			
7. The order/prescription includes the drug dose?			
8. The order/prescription includes the drug strength in metric units?			
9. The order/prescription includes the route of administration?			
10. The order/prescription includes the amount to be dispensed?			
11. The order/prescription includes the frequency of dosage?			
12. The order/prescription includes the duration of use?			
13. All handwritten orders/prescriptions are legible?			
14. Appropriate abbreviations are used?			
15. Orders that are unclear or incomplete are returned to the prescriber?			

[Note: All "incorrect" responses requires review of the Medication Error Report policy and re-education of the staff.]

Individual Completing this checklist:

Name_____ Title_____
          (Last)   (First)

Unit_____

Reviewer:

Name_____ Title_____

Comments (include plan of corrective action):_____

_____

Review Date: ____/____/____ Reviewed By: ☐Pharmacy Committee ☐Quality Improvement Committee
☐Other:_____

Administrator Signature_____ Date: ____/____/____

Medical Director Signature_____ Date: ____/____/____

Medication Administration Monitoring Form
Monitoring the Medication Administration Practice

PROCEDURE MONITORING:	Satisfactory	Unsatisfactory	NA
1. Demonstrates proper storage of medication.			
2. Sets-up medication administration properly (i.e., clean cart, clean work space, supplies available)			
3. Reads and follows directions on medicine labels and/or MAR			
4. Identifies the Resident by name			
5. Demonstrates clean technique for administering medications			
6. Demonstrates correct recording of medications *given*			
7. Demonstrates correct recording of medications *not given*			
8. Demonstrates proper action to take if medication not taken or given either by refusal/unavailable medication or other contraindications			
9. Describes proper action to take if medication not taken or given			
10. Describes resources to be used in an emergency or when problems arise			
11. Describes procedure for medication errors			

If any of the above activities are unsatisfactory, indicate re-instructions given to person being reviewed:

_____

_____

PERSON BEING MONITORED:

Print Name_____ Title_____
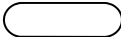
Signature_____ Date: ____/_____/____
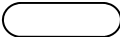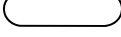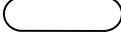
Scheduled date for re-monitoring will be: Date:_____ Time:_____ ☐AM ☐PM

MONITOR INFORMATION:

Name_____ Title_____ DATE ____/_____/____

Administrator Signature_____ DATE ____/_____/____

Dangerous Drug Interactions in Long Term Care
For Error-Prone Abbreviations, Symbols, Dose Designations, and Drug Interactions see _monthly_ updates at: **www.amda.com and www.ismp.org**

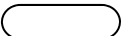|	
Warfarin **NSAIDs**	**Warfarin** **Sulfa Drugs**
Warfarin **Macrolides**	**Warfarin** **Quinolones**
Warfarin **Phenytoin**	**Ace Inhibitors** **Potassium Supplements**
Ace Inhibitors **Spironolactone**	**Digoxin** **Amiodarone**
Digoxin **Verapamil**	**Theophylline** **Quinolones**

Purpose of the Dangerous Drug Interactions in Long Term Care

- Medications chosen for the list are based on their frequency of use in older adults in the long term care setting, and on the potential for adverse consequences if used together.

- Due to individual variability, not every older adult who takes these medications together will experience an adverse reaction. However, these combinations have the potential to produce harmful effects.

- The purpose of this list is to alert the interdisciplinary team to the possibility that a negative interaction may occur so that steps may be taken to choose alternative medications, adjust doses, monitor the patient carefully, or take other such actions as may be appropriate.

MEDICATION RELATED LABORATORY
TEST MONITORING POLICY

Purpose: To establish a guideline for timely and appropriate monitoring of medication related laboratory tests.

Policy:

1. This policy is intended to supplement the facility's policy on laboratory services and testing.
2. The Medical Director, in consultation with the Administrator, Pharmacy Consultant, and others, shall establish, communicate, and monitor the implementation of medication specific laboratory tests in accordance with generally recognized standards of care, government regulations, and medication manufacturers recommendations.
   a. Established medication related laboratory tests will be "ordered" automatically in accordance with the facility-established policy. Nurses will schedule the laboratory tests at the time that they transcribe the related medication orders. Provider pharmacy may print order sheets that include facility-specific, medication-related laboratory tests.
   b. Specific physician order for laboratory monitoring may supersede policy.
3. Laboratory test results will be monitored and communicated to the prescribing physician.
   a. Prescribing physician will review and/or adjust medications as appropriate in response to laboratory findings, individual resident needs, and standards of care.

Sample Automatic Drug/Laboratory Guide

DRUG	LABORATORY TESTING
Digoxin	Digoxin Level: 1. On admission or within 30 days of start of medication 2. Whenever toxicity is suspected 3. Annually　　　　　　　　　　　　　　　　　　[SAMPLE ONLY]
Coumadin	PT/INR Daily on start of medication until therapeutic, stable results; weekly for 4 weeks, if stable; monthly or as otherwise clinically indicated. Daily upon any change in dose or other occurrence that may alter anti-coagulation.　　　　　　　　　　　　　　　　　　[SAMPLE ONLY]

4. Facility/program will develop specific guidelines for medication-related laboratory monitoring. Comprehensive guidelines for all anti-coagulation therapy is strongly recommended. Guideline should include laboratory monitoring for additional medications including, but not limited to the following:

• ACE Inhibitors	• Dilantin	• Lithium	• Quinidine
• Aminoglycosides	• Diuretics and electrolyte replacement	• Methenamine therapy	• Tegretol
• Avandia (rosiglitazone) and Actos (pioglitazone)	• Epoetin therapy (Epogen / Procrit)	• Methotrexate	• Theophylline
• Cordarone (amiodarone)	• Hematinic therapy (Iron, Folic Acid, B12 supplementation)	• Nitrofurantoin	• Thyroid replacement therapy
• Coumadin	• Hypoglycemics	• Phenobarbital	• Thyroid suppression
• Digoxin	• Lipid lowering agents	• Procainamide	• Valproic Acid

ADR Classifications

Naranjo's Algorithm: Determination of ADR Probability	YES	NO	DO NOT KNOW	SCORE
1. Are there any previous conclusive reports on this reaction?	+1	0	0	
2. Did the adverse event appear after the suspected drug was administered?	+2	-1	0	
3. Did the adverse reaction improve when the drug was discontinued or a "specific" antagonist was administered?	+2	0	0	
4. Did the adverse reaction reappear when the drug was re-administered?	+2	-1	0	
5. Are there alternative causes (other than the drug) that could, on their own, have caused the reaction?	-1	+2	0	
6. Did the reaction reappear when a placebo was given?	-1	+1	0	
7. Was the drug detected in the blood (or other fluids) in concentrations known to be toxic?	+1	0	0	
8. Was the reaction more severe when the dose was increased or less severe when the dose was decreased?	+1	0	0	
9. Did the resident have a similar reaction to the same or similar drugs in any previous exposure?	+1	0	0	
10 Was the adverse event confirmed by any objective evidence?	+1	0	0	
			TOTAL SCORE	

TOTAL SCORE	CHECK ONE ☑	
> 9	❑	Highly Probable
5 - 8	❑	Probable
1 - 4	❑	Possible
≤ 0	❑	Doubtful

PREVENTABILITY

a. Non-preventable	
b. Preventable:	❑Previously known drug allergy.
	❑Inappropriate or unmonitored drug therapy.
	❑Drug blood levels (i.e. therapeutic drug monitoring) or other laboratory test(s) not performed or performed incorrectly.
	❑Drug not dosed appropriately according to age, weight, organ function, and/or disease state.
	❑Patient non-adherence.
	❑Known drug-drug or drug-food interaction.

SEVERITY

Level 1	❑	No change in current medication required.
Level 2	❑	Change in current medication therapy (dosage reduction or discontinued) required or no change in therapy but with addition of medication to manage side effect.
Level 3	❑	Change in current medication therapy and antidote and/or other treatment required.
Level 4	❑	Reason for resident's hospitalization
Level 5	❑	A Level 4 reaction requiring intensive medical care
Level 6	❑	Permanent harm to the resident.
Level 7	❑	Direct or indirect cause of resident's death

Related Internet Sites

Please review HCANJ's Pain Management and Falls Management Best Practice Guidelines available at www.hcanj.org. Click on "Best Practice" for related documentation and forms.

American Geriatrics Society	http://www.americangeriatrics.org
American Medical Association	http://www.ama-assn.org
American Medical Directors Association	http://www.amda.com
American Society of Consultant Pharmacists	http://www.ascp.com
Association for Professionals In Infection Control and Epidemiology	http://www.apic.org
Centers for Disease Control and Prevention—CDC	http://www.cdc.gov/
Centers for Medicare & Medicaid Services—CMS	http://www.cms.hhs.gov/
FirstGov.com, official US site to government agencies	http://www.firstgov.gov/Agencies/Federal/All_Agencies/index.htm
Food and Drug Administration	http://www.fda.gov/
Health Care Association of New Jersey—HCANJ	http://www.hcanj.org
Health Tech	http://www.healthetech.com
Institute for Health Care Improvement	http://www.ihi.org/IHI/Topics/PatientSafety/MedicationSystems/Tools/
Institute for Safe Medication Practices	http://www.ismp.org/
Joint Commission on Accreditation—JCAHO	http://www.jcaho.org
National Center for Health Statistics	http://www.cdc.gov/nchs/index.htm
National Guideline Clearinghouse	http://www.guideline.gov/
National Institute On Aging	http://www.nia.nih.gov/
National Quality Measures Clearinghouse	http://www.qualitymeasures.ahrq.gov
NJ Department of Health and Senior Services Communicable Disease Services	http://www.state.nj.us/health/cd/index.htm
NJ State Guidelines	http://www.state.nj.us/health/cd/index.htm
NJ State Medical Practice Act	http://www.state.nj.us/lps/ca/bme/board/history.htm
NJ State Nurse Practice Act	http://www.state.nj.us/lps/ca/medical/nursing.htm
NJ State Pharmacy Law	http://www.njconsumeraffairs.gov/medical/pharmacy.htm
Substance Abuse and Mental Health Services	http://www.samhsa.gov/
Technology for Long Term Care	http://www.techforltc.org
US Department of Health and Human Services	http://www.hhs.gov/
US Department of Health and Human Services National Institutes of Health	http://www.nih.gov/
US National Library of Medicine	http://www.nlm.nih.gov/

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