HOUSEKEEPING

- ❖Fire alarm
- ❖Toilets
- ❖Mobile Phone
- ❖Breaks/Lunch
- ❖Willingness to participate
- ❖Confidential/Non personal
- ❖Personal

INTRODUCTIONS

AIM

To introduce the principles of nausea and vomiting, enabling management and assessment in the palliative care setting.

Objectives

- To explain the anatomy and physiology of nausea, retching and vomiting.
- To ascertain causes of nausea and vomiting
- Carry out a full assessment of a palliative patient with nausea, retching and vomiting.
- Outline a management plan of a palliative patient with nausea, retching, and vomiting
- Discuss the impact that nausea, retching and vomiting can have on the quality of life of a palliative patient.

Incidence

- 43% of people with AIDS,
- 30% of people with end-stage renal disease,
- 17% with advanced heart disease and in 6% of people with terminal cancer
- Nausea and vomiting occur in 50–70% of people with advanced cancer
- The prevalence of nausea and vomiting becomes more common as death approaches.

Definitions

- NAUSEA "an unpleasant feeling of the need to vomit…."
- RETCHING "Rhythmic movement of the diaphragm and abdominal muscles, where the stomach contents enter the oesophagus. Generally occurs with nausea and often culminates in vomiting."
- VOMITING "Forceful expulsion of gastric contents through the mouth." **Twycross & Wilcock 2016**

CAUSES

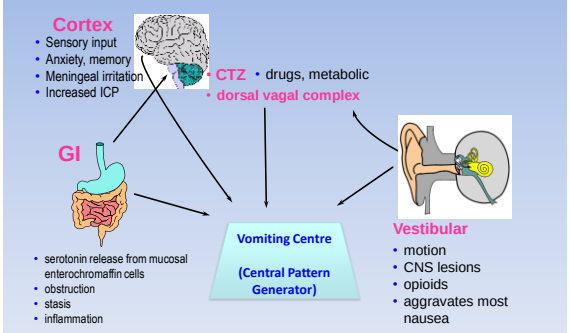
GASTRIC
Drugs
Constipation
Intestinal Obstruction
Position of tumour/metastases
Ascites
Gastric stasis
Gastritis
Autonomic Failure

CAUSES

VESTIBULAR	CORTICAL	CHEMICAL	OTHER
DRUGS	CEREBRAL OEDEMA	HYPERCALCAEMIA	INFECTION
MOVEMENT	TUMOUR	URAEMIA	SEPSIS
INNER EAR DISEASE	METASTASES	OTHER METABOLIC DISTURBANCES	CANCER ITSELF
	BLEEDING	DRUGS	
	ANXIETY	CHEMOTHERAPY	
	ANTICIPATORY NAUSEA	RENAL/HEPATIC FAILURE	
	PAIN		
	FEAR		

Pathophysiology

- Vomiting centre.
- Nerves within the gut (stomach).
- Chemoreceptor trigger zone (CTZ).
- Vestibular system.
- Cortex.



Assessment

How should I assess the person and determine the cause of nausea and vomiting?

- **O**- onset
- **P-** provoking
- **Q** - quality
- **R** - relieving factors
- **S** - symptoms
- **T** - timing

Features

Large-volume of vomitus, infrequent vomiting, relief of symptoms after vomiting, oesophageal reflux, epigastric fullness, early satiation, hiccups. Succussion splash in some people.	Gastric stasis
Symptoms similar to gastric stasis, but also forceful vomiting and rapid dehydration.	Gastric outflow obstruction
Symptoms similar to gastric stasis, but low-volume vomiting.	'Squashed stomach syndrome' (reduction in gastric cavity by tumour or external compression)

Vomiting soon after eating or drinking, vomitus consisting of what has just been swallowed, sensation of food sticking.	Oesophageal blockage
Intermittent nausea (often relieved by vomiting), worsening nausea and/or feculent vomiting as obstruction progresses, abdominal pain (may be colicky), abdominal distention (may be absent if high obstruction).	Bowel obstruction
Effortless vomiting, often in the morning, which may be associated with headache (diurnal) and papilloedema; nausea (may be diurnal). Neurological signs and photophobia may be absent.	Increased intracranial pressure

Nausea and/or sudden vomiting on movement (for example turning in bed).	Motion-associated emesis
Nausea present in waves — may be triggered by a previously experienced stimulus and may be relieved by distraction.	Anxiety-related nausea
Constant nausea, variable vomiting.	Chemically induced nausea
Information from: [Mannix, 2010; Regnard and Dean, 2010]	

RISK

Nausea and vomiting that are not controlled can cause the following:

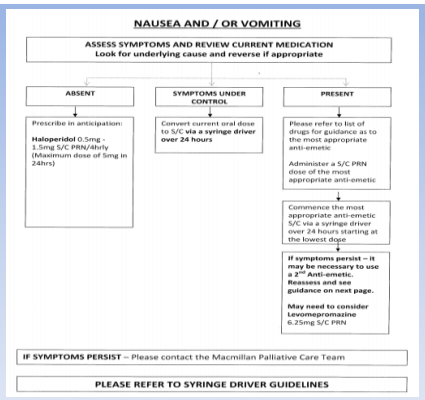
- Chemical changes in the body.
- Mental changes.
- Loss of appetite.
- Malnutrition.
- Dehydration.
- A torn oesophagus.

Management

- Reverse the reversible
- Non pharmacological management
- Pharmacological management
- Carer support

Non Pharmacological Management

- Enhance patients sense of control
- Carbonated drinks help to release trapped wind
- Ginger as a herbal remedy (Ernst and Pittler, 2000)
- Reflexology
- Visual imagery
- Acupuncture/pressure point
- Cognitive Behaviour Therapy to reduce the psychological distress associated with nausea and vomiting
- Oral hygiene



PLEASE REFER TO SYRINGE DRIVER GUIDELINES FOR ANTI-EMETIC DRUG COMPATIBILITY

Following Assessment: Probable Cause of Nausea and / or Vomiting	Appropriate Drug	Recommended PRN	Recommended 24 hr dose via syringe driver
• Chemical Causes, e.g. hypercalcaemia or opiate induced	HALOPERIDOL (May be sedating)	0.5mg- 1.5mg S/C (maximum 5mg 24hrs)	1.5mg – 3mg (maximum 5mg 24hrs including PRN doses
• Gastric Stasis • Peristaltic Failure • Partial bowel obstruction (without colic)	METOCLOPRAMIDE (Non-sedating)	10mg S/C	30mg – 60mg
• Bowel obstruction with colic and / or need to reduce gastric secretions	HYOSCINE BUTYLBROMIDE (Minimal sedation) OR GLYCOPYRRONIUM (Minimal sedation)	20mg S/C 200 micrograms	60mg – 120mg 800 micrograms
• Raised intracranial pressure* • Complete bowel obstruction with colic (cyclizine inhibits the action of metoclopramide)	CYCLIZINE (May be sedating)	Up to 50mg TDS If using a syringe driver - no PRN doses as 150mg is the maximum daily dose	150mg (Maximum 24 hour dose)
• Where the probable cause cannot be ascertained after assessment or other anti-emetic drugs are ineffective	LEVOMEPROMAZINE (May be sedating)	6.25mg S/C	6.25mg – 12.5mg

*For raised intracranial pressure, high dose DEXAMETHASONE is also indicated. Use a separate syringe driver or administer a once daily s/c dose (DEXAMETHASONE has a long duration of action)

PLEASE REFER TO SYRINGE DRIVER GUIDELINES

CASE STUDIES

Summary

- Full detailed assessment should be completed
- If possible identify what is causing the nausea or vomiting
- Choose drug which acts on appropriate receptor
- Reassess

Bowel Obstruction in Palliative Care

Lorraine Chico and Lynda Dalton
Palliative clinical nurse specialists

AIM

- To discuss the assessment and management of Malignant Bowel Obstruction (MBO) in the palliative care setting
- To discuss the impact of Malignant Bowel Obstruction on patient's and their carer's

OBJECTIVES

- To explain the anatomy and physiology of the bowel
- Improve understanding of pathophysiology of MBO
- To discuss clinical features of MBO
- Discuss medical management
- Outline Pharmacological and non-pharmacological measures for symptom management
- Discuss impact on patients with MBO

INCIDENCE of malignant bowel obstruction

The global prevalence of MBO is estimated to be 3% to 15% of cancer patients.

- colon 10–28%,
- ovary 20–50%
- Stomach 6–19%
- pancreas 6–13%
- bladder 3–10%
- endometrium 3–11%
- breast 2-3%
- melanoma 3%

Small bowel obstruction is more common than large bowel obstruction
61% vs 33%

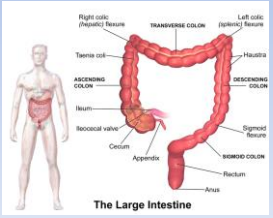
Cancer Manag Res. 2012; 4: 159–169.
Ann Med Surg (Lond). 2015 Sep; 4(3): 264–270.

Definition of Bowel Obstruction

- Bowel obstruction is a mechanical or functional obstruction of the intestines which prevents the normal movement of the products of digestion
- Malignant bowel obstruction occurs in the presence of primary intra-abdominal or extra-abdominal cancer with peritoneal involvement

Large intestine

- Large intestine – ascending, transverse, descending and sigmoid colon, rectum and anus (1.5m)
- Absorption of water, Na+ and minerals
- Secretion of mucus for lubrication and protection
- Storage of faeces

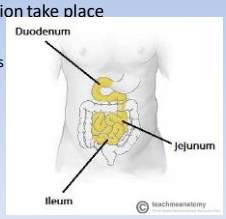


The Large Intestine

Small intestine

- Small intestine – duodenum, jejunum and ileum (6.5m)
- Where most digestion and absorption take place

- Intestinal juice – an alkaline fluid/enzymes produces 1000-1500ml/day
- Mucus is for protection and lubrication
- In the duodenum gastric acid is neutralized by sodium bicarbonate (HCO3)



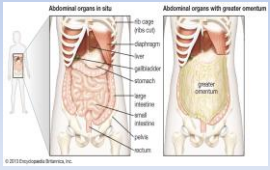
Omentum

- Omentum – attached to the surface of the large intestine

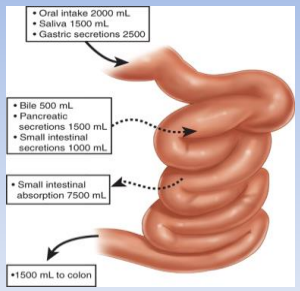
are omental appendices which are small pouches of peritoneum filled with fat

Omental cake – is an abnormally thickened greater omentum

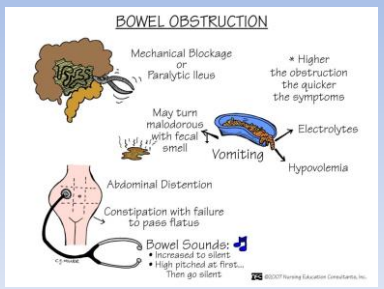
Can be infiltrated by metastatic tumours from stomach, ovary and colon.



paraphysiology



Pathphysiology



Causes of Malignant Bowel Obstruction

- Partial or Complete Malignant Bowel Obstruction can occur at single or multiple sites when:

- Tumour growth
- Ca in the abdominal area such as ovarian, bowel or stomach presses on the bowel from the outside
- Cancer can grow into the nerve supply of the bowel and damage it
- a solid mass of indigestible material can collect in the bowel

Making a Diagnosis

- Take a history
- Physical examination
- Contrast radiography
- CT scan assists in choice of surgical intervention
- Abdominal x rays may help
- Differential diagnosis is constipation due to faecal impaction
- Passage of flatus stops in compete obstruction

CLINICAL FEATURES

- Nausea
- Vomiting - may be feculent
- Dull aching pain
- Colicky pain and altered bowel sounds.
- Abdominal distention (in lower sites)
- Other symptoms – anorexia, dry mouth and dehydration, ascites (poor prognostic factor)

Bowel obstruction: Surgery

- Careful selection of patients
- Single site
- Good prognosis disease
- Future treatment options
- Performance status
- Co morbidities
- Nutritional status

MEDICAL MANAGEMENT

Good symptom management can usually be achieved and greatly improves quality of life:

Consider prognosis and what are the goals of care

- GENERAL MEASURES:
  - Give mouth care
  - Small amounts of oral fluids and food as desired
  - NG tube – indicated if surgery is being considered or for short term intervention (high obstruction)
- PHARMACOLOGICAL MEASURES :
  - Medication should generally be given S/C or continuous S/C infusion (CSCI)

Medical Management

- The medical management of Malignant Bowel Obstruction can take several days before there is a significant resolution of symptoms
- spontaneous resolution of MBO occurs in 36% of patients with inoperable MBO
- 92% settle spontaneously by day 7
- 72% of those who settle spontaneously subsequently developed another episode of obstruction

PHARMACOLOGICAL MEASURES FOR SYMPTOMS

NAUSEA AND VOMITING

- Set realistic goals.
- Give anti-emetics parenterally and regularly
- Anti-secretory drugs – include hyoscine butyl bromide and octreotide (by specialist)

PAIN

COLICKY PAIN

Stop stimulant laxatives and pro-kinetic drugs in complete obstruction

Use antispasmodics(hyoscine butylbromide 60-120mg/24 hours by CSCI

DULL ACHY PAIN

Diamorphine or morphine S/C (if helpful consider starting CSCI)

PAIN FROM TUMOUR MASS

Consider dexamethasone/chemotherapy/radiotherapy to reduce tumour/peri tumour oedema (under specialist guidance)

CONSTIPATION

- Examine lower rectum or stoma for faecal impaction
- If partial obstruction – use laxatives (softeners) with caution

NUTRITION AND HYDRATION

- IV and total parental nutrition (TPN)
- S/C fluids may be used for thirst; usually given 1L in 24 hours
- Oral intake of food and drink can continue for the patients enjoyment and is often well tolerated

Impact to patients with MBO

- Focus on symptom control
- Address treatment expectations
- Psychological distress
- Quality of life
- Goals of care

Scenario

Any Questions