

Symptom management



Case 1

35yo female with metastatic breast cancer comes in for palliative chemotherapy with cyclophosphamide. Following the chemotherapy infusion she experiences significant nausea and vomiting.

What is the reason for her nausea and vomiting?

- ▶ Vomiting is the body's defense mechanism against toxic medications
- ▶ The chemoreceptor trigger zone in the brain is stimulated by chemotherapy drugs
- ▶ The GI system responds with an emetic response



Which chemotherapeutic agents cause nausea and vomiting?

Level	Frequency of Emesis (%)	Agent	
High	> 90 %	Dacarabizine	
		Cyclophosphamide	High dose >1500mg/m ²
Moderate	30 – 90 %	Doxorubicin	
		Cyclophosphamide	Lower dose <1500mg/m ²
Low	10 – 30 %	Methotrexate	
Minimal	< 10 %	Bleomycin	
		Vincristine	

How can you treat nausea and vomiting?

Antiemetic medications:

- ▶ Doctor determines which anti-nausea medications to use based on the patient's specific situation, chemotherapeutic drugs used, and doses of the chemotherapy
- ▶ Antiemetics Agents
 - ▶ Motilium, primperan, ondansetron (zofran), phenergan, diphenhydramine (benedryl), metaclopramine (reglan),
 - ▶ **dexamethasone (added to antiemetic regime)

How can you prevent nausea and vomiting

- ▶ **Eat small meals**
- ▶ **Eat what appeals to you:** It's best to avoid foods that are sweet, fried or fatty. In addition, cool/cold foods may give off less bothersome odors
- ▶ **Drink lots of fluids.** Try cool beverages such as water, unsweetened fruit juices, tea.
- ▶ **Avoid unpleasant smells.**
- ▶ **Make yourself comfortable.** Rest after eating, but don't lie flat for a couple of hours. Try wearing loosefitting clothing and distracting yourself with other activities. This is particularly useful in the pediatric population who respond well to distraction.
- ▶ **Use relaxation techniques.** Examples include meditation and deep breathing.

Case 1 summary

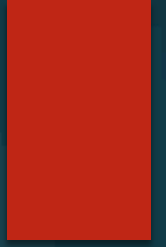
- ▶ Patients undergoing chemotherapy often experience nausea and vomiting
- ▶ As a nurse, it is important to help patients avoid nausea and vomiting using pharmacological and non-pharmacological methods
- ▶ If a patient vomits, you must be ready to rehydrate the patient
- ▶ Prevention of nausea and vomiting is important

Case 2

A man with prostate cancer metastatic to brain comes to you complaining of a mild headache. You look through his chart and find that his cancer has spread to his brain.

Exam: unremarkable including a normal neurological examination

How should his symptoms be treated?



WHO 3-step Ladder



3 severe

Morphine
*± step 1 and/or
Adjuvants*

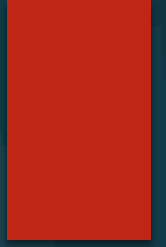
2 moderate

A/Codeine
A/Dihydrocodeine
Tramadol
*± step 1 and/or
Adjuvants*

1 mild

Aspirin
Paracetamol
NSAIDs
± Adjuvants

What are the different types of pain?



TYPES OF PAIN

NOCICEPTIVE

Somatic

- bones, joints
- connective tissues
- muscles

Visceral

- Organs –
heart, liver,
pancreas, gut,
etc.

NEUROPATHIC

Deafferentation

*Sympathetic
Maintained*

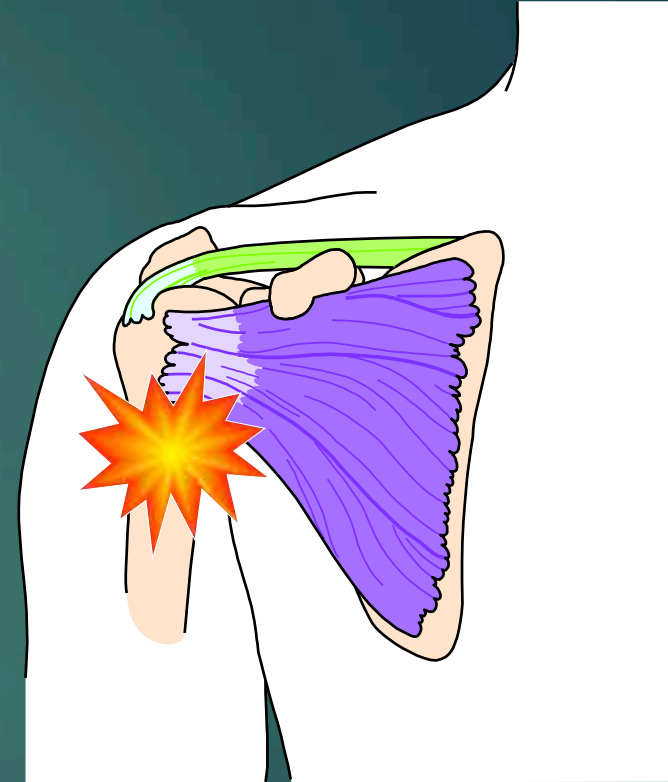
Peripheral

Somatic Pain

- Aching, often constant
- May be dull or sharp
- Often worse with movement
- Well-localized

For example:

- Pain in the bone & soft tissue

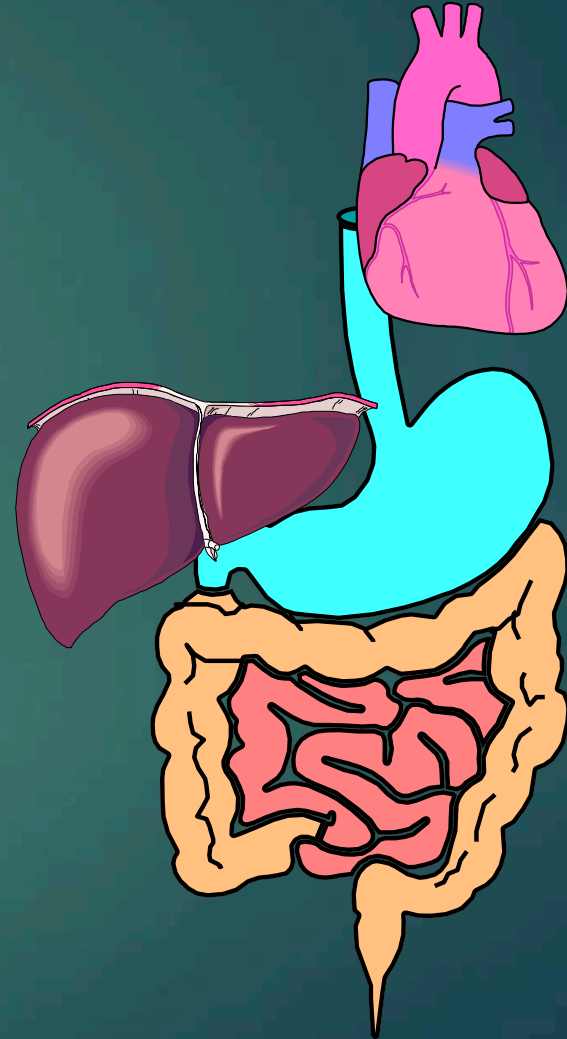


Visceral Pain

- Constant or crampy
- Aching
- Poorly localized
- Referred

For example:

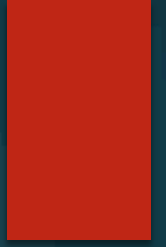
- Cancer of the pancreas
- Liver capsule distension
- Bowel obstruction



Neuropathic Pain

- Tingly, burning, numbness or electric sensation.
- May be caused by injury (amputation and subsequent phantom limb pain), scar tissue from surgery or damaged nerves (diabetic neuropathy)
- More difficult to control

What are the side effects of opioid analgesics?



Adverse effects of opioids

Common

Constipation

Dry mouth

Nausea/Vomiting

Sedation

Uncommon

Hallucinations/bad
dreams

Dysphoria/Delirium

Seizures

Urinary retention

Pruritus

Respiratory depression

Management of opioid side effects

- ▶ **Constipation** →
 - ▶ Give **systematic laxatives** and bowel regimen as prophylaxis
- ▶ Nausea →
 - ▶ Anti-emetics as needed
- ▶ Sedation →
 - ▶ Lower dose (particularly during the day)
- ▶ Respiratory depression →
 - ▶ *Can be life threatening:*
 - ▶ Close clinical monitoring of patients on morphine
 - ▶ If unstable vital signs, give Naloxone 0.1-0.2 mg IV q 1-2 min

Case 3

A 68 year old female with breast cancer metastatic to the lungs presents for 2 months of worsening shortness of breath.

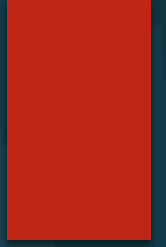
Vitals – normal

Examination – unremarkable

Chest X ray – shows metastatic lung masses

CT chest – negative for pulmonary embolus

What are the respiratory symptoms associated with cancer?

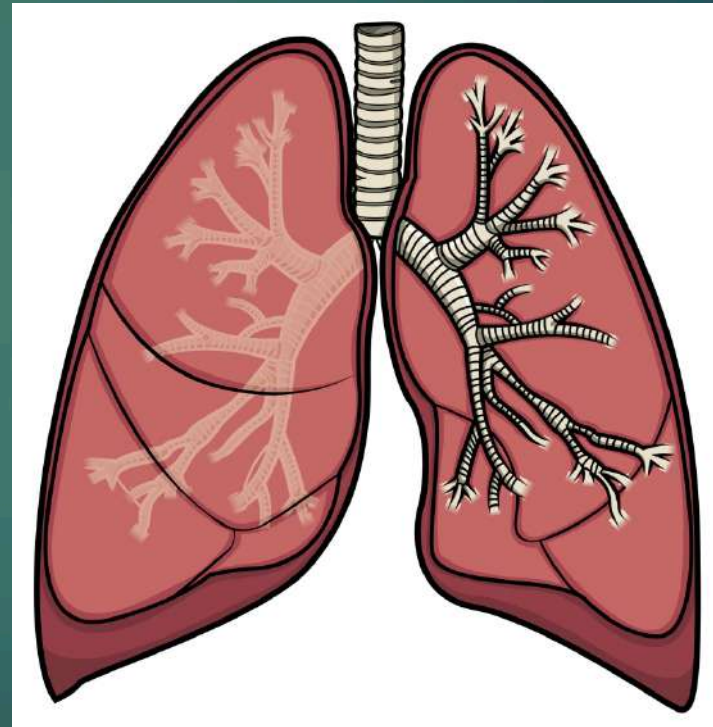


Common Respiratory Symptoms

Dyspnea

Hypoxia

Cough



Dyspnea

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Definition:

- ▶ shortness of breath
- ▶ associated with increased respiratory rate and effort
- ▶ decreased depth of breathing
- ▶ often associated with pain, fatigue and/or insomnia and cough

Assessment:

- ▶ Use of subjective report
- ▶ Clinical assessment – physical exam (6 minute walk test)
- ▶ Assess for cough (may be an underlying cause/symptom)
- ▶ Pulse oximetry
- ▶ Chest X ray
- ▶ Peak flow, pulmonary function tests (where indicated)

Major Causes of Respiratory Symptoms

▶ Pulmonary

- ▶ Metastatic disease in the lungs
- ▶ Pleural effusion
- ▶ Mucus plugging, not being able to clear secretions
- ▶ Pulmonary edema (volume overload)
- ▶ Pneumonia, pneumonitis secondary treatment
- ▶ Pulmonary embolus
- ▶ PNA

▶ Cardiac

- ▶ Heart failure (volume overload, pericardial effusion)

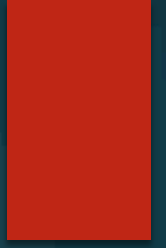
▶ Neuromuscular

- ▶ Pain, splinting
- ▶ Deconditioning, cachexia, generalized weakness

▶ Other

- ▶ Anemia
- ▶ Anxiety
- ▶ Metabolic acidosis

How do you treat cancer associated dyspnea?



Treatment of Dyspnea/Cough:

Pharmacologic:

- Opioids
- Bronchodilators
- Diuretics
- Suppressants/ expectorants-cough
- Steroids – cough
- Antibiotics- pneumonia
- Other

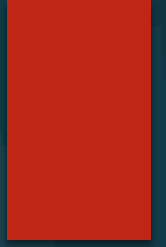
Non-pharmacologic:

- Oxygen
- Suctioning
- Counseling
- Pursed lip breathing
- Chest PT
- Positioning
- Fans, humidifier,
- Other

Case 4

A patient with Kaposi sarcoma comes to see you for uncontrollable anxiety. Since being diagnosed with cancer she has had an anxious feeling that she cannot get rid of.

What is anxiety and how is it treated?



Anxiety

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Description

- ▶ Vague feeling of dread or apprehension
- ▶ Often associated with depression

Anxiety can

- ▶ Increase sensation of pain
- ▶ Interfere with one's ability to sleep
- ▶ Cause nausea and vomiting
- ▶ Interfere with quality of life

Anxiety

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Causes

- ▶ Frequently has no specific cause
- ▶ Medications or other substances (caffeine)
- ▶ Uncertainty

Assessment

- ▶ Question regarding anxiety
 - ▶ Assess level of anxiety (mild to severe)
 - ▶ Signs & symptoms – can be extensive
 - ▶ May be Physical, Emotional, Cognitive or Behavioral
- This needs extension but may be done by asking the group to list these

Treatment of Anxiety

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Pharmacologic

- ▶ Antidepressants
- ▶ Benzodiazepines/anti-convulsants
- ▶ Neuroleptics
- ▶ Other non-benzodiazepines

Non-pharmacologic

- ▶ Empathetic listening
- ▶ Concrete information/warning about what to expect
- ▶ Assurance and support
- ▶ Relaxation/imagery