Disclosures
Carma Erickson-Hurt has no real or perceived conflicts of interest that relate to this presentation.

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Objectives
1. Describe how symptom assessment and management enhance quality of life and relieve suffering.
2. Identify appropriate nursing interventions to manage neurological, cardiovascular, and respiratory symptoms.
3. Recognize the pharmacological and non-pharmacological treatment modalities available to manage neurological, cardiovascular, and respiratory symptoms.
Neurological – Dysphagia

**Definitions**
- Dysphagia
- Odynophagia
- Prevalence

**Etiologies**
- Obstructive
- Motor
- Diseases/causes

**Assessment**
- Etiology
- Swallowing
- Swallow studies

**Interventions**
- Treat underlying cause
- Referral speech pathologist
- Dietary
- Positioning
- Timing of meals
- Feeding tube
- Patient and family education
Neurological – Myoclonus

Definition
• Myoclonus

• Prevalence
• Etiologies
• Medications – opioids, anticonvulsants, antidepressants, contrast dye, anesthetics, antibiotics and cannabinoids
• Metabolic disturbances
• Inflammatory or degenerative central nervous system (CNS) diseases

Neurological – Myoclonus

Assessment
• Onset, duration
• Interruption of sleep
• Frequency
• Delirium
• Hydration status
• Estimated prognosis
• Review analgesic history, medications, labs

Neurological – Myoclonus

Interventions
• Correct exacerbating factors
• Observation
• Pharmacological interventions – opioid reduction, adjuvant and other analgesic considerations, hydration
• Nonpharmacologic – heat/cold, massage, relaxation, positioning
• Patient and family education
Neurological – Seizures
Definitions
• Seizure
• Primary (generalized)
• Focal (partial)

• Prevalence
• Primary brain tumors
• Brain metastasis

Neurological – Seizures
Etiologies
• Brain cancer
• Stroke
• Toxic/metabolic
• Seizure disorder
• Increased intracranial pressure (ICP)

• Metabolites
• Preservatives
• Medications
• Miscellaneous

Neurological – Seizures
Assessment
• Chart review: history, disease, medications, trauma, myoclonus
• Questions: onset and type, aura, headache, nausea, projectile vomiting
• Check for treatable causes
• Check drug levels
• Electroencephalogram (EEG) if warranted
Neurological – Seizures Interventions

• For single seizure work up treatable causes
• Actively seizing:
  . Assess airway, breathing, circulation
  . Safety and positioning
  . Calm environment
• Lorazepam, diazepam, clonazepam, antiepileptic, therapy for goals of care
• Treat etiology – hypoglycemia, hyponatremia, hypercalcemia, hypoxemia, hypomagnesemia, infection, substance abuse
• Patient and family education

Neurological – Extrapyramidal Symptoms (EPS)

Definitions
• EPS
• Akathisia
• Dystonia
• Tardive dyskinesia

Etiologies
• Iatrogenic drug induced
• Parkinson’s disease
• Cerebral lesions

Prevalence
Assessment

Neurological – Extrapyramidal (EPS) Interventions

• If phenothiazine toxicity – stop phenothiazine, give benztpoine mesylate, diphenhydramine
• For akathisia – benzodiazepines, beta-blockers
• For dystonia – physical therapy (PT) or occupational therapy (OT)
• Review medications
• Patient and family education
Cardiovascular – Edema

**Etiologies**
- DVT, lymphatic obstruction
- Heart failure, ESRD, ESLD
- Superior vena cava (SVC) syndrome

**Assessment**
- History
- Peripheral edema
- Pulmonary edema
- Ascites

Cardiovascular – Edema Interventions

- Caution with diuretics
- Abdominal ascites – slow diuresis
- SVC syndrome – chemo, radiation, stents
- Lymphedema – physical therapy (PT), occupational therapy (OT), compression
- Lower extremity (elevation, compression, skin care)
- Patient and family education

Cardiovascular – Angina

**Definition**
- Typical
- Atypical

**Prevalence**

**Etiology**
### Cardiovascular – Angina

**Assessment**
- Goals of care
- History
- Exacerbating factors
- Diagnostics

### Cardiovascular – Angina

**Interventions**
- Guide by goals of care
- Pharmacological – beta blockers, calcium channel blockers, angiotensin-converting enzyme (ACE) inhibitors, angiotensin II receptor blockers (ARBs)
- Acute angina nitroglycerine
- Surgical
- Patient and family education

### Respiratory – Cough

**Definition**

**Prevalence**

**Etiologies**
- Acute cough
- Chronic cough

**Assessment**
- History and exam
- Sputum
- Medication review
- Alleviating/exacerbating factors
- Distress
Respiratory – Cough Interventions

- Over the counter (OTC) products
- Antitussives – centrally and peripherally acting
- Expectorants
- Corticosteroids
- Antibiotics
- Patient and family education

Respiratory – Dyspnea

Subjective sensation of shortness of breath that can only be perceived by the person experiencing it

One of the most common symptoms reported by patients with advanced illness

Respiratory – Dyspnea Etiologies

- Pulmonary obstructive or restrictive disease
- Perfusion/oxygenation mismatch
- Pneumothorax
- Fatigue
- Positioning
- Depression
- Yearning
- Social issues
- Physical problems
- Non-acceptance
- Economic distress
- Anxiety
Respiratory – Dyspnea Assessment

<table>
<thead>
<tr>
<th>Patient description</th>
<th>Medication compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Physical exam</td>
<td>• Nonverbal patients</td>
</tr>
<tr>
<td>• Check oxygen</td>
<td>• Emotional distress</td>
</tr>
<tr>
<td>• Assess fluid overload</td>
<td>• Depression</td>
</tr>
<tr>
<td>• Effect on activities of daily living (ADLs)</td>
<td></td>
</tr>
</tbody>
</table>

Respiratory – Dyspnea Interventions

- Reversible causes
- Cognitive-behavioral therapy
- Suctioning rarely indicated
- Heart failure management
- Goals of care
- Refractory dyspnea at end of life
- Discussion about high flow O₂
- Noisy respirations

Respiratory – Dyspnea Pharmacologic Interventions

- Opioids
- Oxygen
- Anxiolytics
- Antidepressants
- Diuretics
- Corticosteroids
- Antibiotics
- Blood transfusion
- Bronchodilators
Respiratory – Dyspnea
Nonpharmacologic Interventions
- Low salt diet/fluid restriction
- Cardiac and pulmonary rehabilitation
- Fans
- Relaxation strategies
- Thoracentesis/drain placement
- Acupuncture
- Positioning
- Patient and family education

Sample Question
Mrs. Jones has lung cancer and a history of congestive heart failure (CHF) and chronic obstructive pulmonary disorder (COPD). Her medication profile includes digoxin and furosemide and she has nasal oxygen at 2L/min. Which of the following nursing interventions should you do first?
A. Call the physician to request an order for low-dose morphine.
B. Inquire whether the patient has been taking her digoxin and furosemide.
C. Reassure the patient that is part of the disease progression.
D. Increase her oxygen level to 3L/min.

Respiratory – Pleural Effusions
Definition
- Transudative
- Exudative

Prevalence
Etiologies
- Parapneumonic
- Malignant disease
### Respiratory – Pleural Effusions

#### Assessment
- Detailed history
- Physical examination
- Habits, history, employment
- Exposures

#### Respiratory – Pleural Effusion Interventions
- Remove/treat etiology
- Non-pharmacologic
- Thoracentesis
- Tube thoracostomy
- Pleurodesis
- Thoroscopy
- Malignant pleural effusions
- Patient and family education