

Dyspnea or Respiratory Distress

Setting: **Emergency Department** Population: **Adult**

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Clinical Description

Care of the Emergency Department patient seeking treatment for the sensation or complaint of breathlessness with or without the appearance of difficulty breathing.

Key Information

- Dyspnea is a subjective experience. Treat the patient based on complaints or appearance, rather than relying on numerical values.
 - Similar signs and symptoms across conditions make diagnosis difficult. The most common causes originate from heart or lungs; although neuromuscular or psychologic origins should be considered.
 - If an opioid or benzodiazepine agent is used to relieve anxiety and breathlessness, closely observe for respiratory depression or deterioration.
 - Dyspnea is associated with higher mortality rates.
 - Alcohol may cause or worsen dyspnea in patients with a chronic illness.
 - Oncology patients frequently experience dyspnea related to physiology of disease or response to treatment.
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Threats to Life, Limb or Function

- airway obstruction
 - anaphylaxis
 - cardiopulmonary arrest
 - hypoxia
 - pulmonary embolism
 - sepsis
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Clinical Goals

By transition of care

A. The patient will demonstrate achievement of the following goals:

- Goal: Acute Signs/Symptoms are Managed
- Goal: Acceptable Pain Level Achieved

B. Patient, family or significant other will teach back or demonstrate education topics and points:

Correlate Health Status

Correlate health status to:

- history, comorbidity
- age, developmental level
- sex, gender identity
- baseline assessment data
- physiologic status
- response to medication and interventions
- psychosocial status, social determinants of health
- barriers to accessing care and services
- health literacy
- cultural and spiritual preferences
- safety risks
- family interaction
- plan for transition of care

Dyspnea or Respiratory Distress

Presentation

- difficulty breathing
- chest heaviness
- chest tightness
- feeling of air hunger
- feeling of inability to take a deep breath
- respiratory pattern irregular
- tachycardia
- tachypnea

Associated Signs/Symptoms

- accessory muscle use
- breath sounds with wheezing or crackles
- chest pain
- cough
- diaphoresis
- difficulty speaking
- extreme fatigue
- hoarseness
- jugular vein distension
- nervousness
- orthopnea
- peripheral edema
- prolonged expiratory phase
- pursed-lip breathing
- restlessness
- shortness of breath
- sighing frequently
- sputum production
- stridor or noisy breathing

Potential Causes

- anxiety

- aspiration
- cardiac problem, such as atrial fibrillation, heart failure or myocardial infarction
- chronic lung disease exacerbation
- foreign body aspiration
- gastroesophageal reflux
- infection
- panic attack

Initial Assessment

- airway patency
- breath sounds
- breathing pattern
- level of consciousness
- peripheral oxygen saturation
- work of breathing

History

- allergies
- comorbidities
- immunizations
- last menstrual period (females of childbearing age)
- medications
- alleviating factors
- coughing or choking
- dysphagia
- effort variation with position change or activity
- hemoptysis
- ongoing treatment side effects
- onset, duration and precipitating events
- past episode and treatment, such as hospitalization or intubation
- recent exposure, illness
- recent injury

- smoking history and status
- sputum production
- treatment prior to presentation
- use of home oxygen therapy

Laboratory Studies

- ABG (arterial blood gas)
- blood glucose level
- BNP (B-type natriuretic peptide)
- BUN (blood urea nitrogen)
- cardiac biomarker profile, such as creatine phosphokinase, creatine kinase, troponin
- CBC (complete blood count) with differential
- CRP (C-reactive protein)
- D-dimer
- serum creatinine
- serum electrolytes
- serum lactate
- sputum culture
- toxicology levels
- viral culture

Diagnostics

- chest x-ray
- Doppler exam
- ECG (electrocardiogram)

Potential Additional Testing

- bronchoscopy
- CTPA (computed tomography pulmonary angiogram)
- echocardiogram
- esophagoscopy

- peak flow measurement
- pregnancy test (females of childbearing age)
- spiral chest CT (computed tomography) scan
- ultrasonography
- ventilation/perfusion scan

Problem Intervention(s)

Provide Respiratory Support

- Assess and monitor airway and breathing for effective oxygenation and ventilation; maintain close surveillance for deterioration.
- Maintain open and patent airway with use of positioning, airway adjuncts and secretion clearance.
- Position to minimize the risk of aspiration, ventilation/perfusion mismatch and breathlessness.
- Minimize oxygen consumption and demand; limit activity, reduce fever and utilize breathing techniques.
- Provide oxygen therapy judiciously; titrate to prevent hyperoxemia.
- Consider inhaled beta-1 or beta-2 agonist, such as racemic epinephrine or albuterol, especially in the presence of stridor or wheezing.
- Implement noninvasive or invasive positive pressure ventilation to support oxygenation and ventilation, as well as relieve respiratory distress.

Provide Hemodynamic Support

- Monitor cardiovascular status.
- Observe for, and address, cardiac dysrhythmia.
- Position to support perfusion.
- Evaluate fluid status; provide fluid therapy to improve blood flow, perfusion and tissue oxygenation.
- Monitor and manage electrolyte levels; anticipate the need to correct imbalance; evaluate patient response.
- If cardiac origin identified, consider the need for pharmacologic measures, such as a diuretic or vasoactive agent.
- Anticipate urgent intervention in the presence of hemodynamic instability.

Promote Comfort and Manage Pain

- Use a consistent pain assessment tool; evaluate pain and treatment response at regular intervals.

- Involve patient and family in the management plan.
- Provide nonpharmacologic strategies, such as breathing techniques, positioning, distraction and diversion.
- Consider pharmacologic measures, such as an opioid or benzodiazepine agent, especially for palliation or breathlessness associated with anxiety or panic attack.
- Evaluate risk for opioid use.

Minimize and Manage Infection

- Assess for presence of infection and signs of early sepsis.
- Initiate precautions to prevent the spread of infection.
- Obtain cultures prior to initiation of antimicrobial therapy, when possible.
- Anticipate antimicrobial therapy administration; do not delay in the presence of high suspicion or clinical indicators.

Provide Psychosocial Support

- Proactively provide information; encourage questions and address concerns.
- Provide calm, reassuring presence.
- Recognize, identify and allow expression of emotions.
- Promote family/caregiver presence at bedside.
- Offer choices to enhance a sense of control.
- Honor spiritual and cultural preferences.
- Recognize and utilize personal coping strategies.

Facilitate Procedures

- Initiate and maintain NPO (nothing by mouth) status.
- Prepare for or assist with procedures, such as bronchoscopy, laryngoscopy, thoracentesis, chest tube placement or intubation.
- Facilitate referral for follow-up with a dyspnea clinic, heart failure clinic, palliative care, pulmonary rehabilitation, pulmonologist, cardiologist, oncologist or neuromuscular specialist.

Teaching Focus

- symptom/problem overview
 - risk factors/triggers
 - self-management
 - assistive device
 - diagnostic test
 - diet modification
 - medical device/equipment use
 - medication administration
 - opioid medication management
 - orthopaedic device
 - safe medication disposal
 - smoking cessation
 - wound care
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Population-Specific Considerations

Forensics and Legal

- Utilize local, state/province, federal requirements and hospital policy and protocols to manage patient care involving forensics, protective services, workman's compensation and mandatory reportable events and illness.

Human Trafficking

- Human trafficking victims most frequently seek healthcare services from Emergency Departments. Healthcare professionals, alert to signs of trafficking, can guide supportive care for victims.
- Trafficked individuals may be male or female and engaged in sex work or other forced labor. High-risk signs requiring more direct questioning about exploitation include, among others, current employment in a high-risk industry, prior sexually transmitted infections, recent immigration, undocumented immigrant status and other vulnerable and minority populations.

Geriatric

- Dyspnea is more common in older adults, although the underlying causes are unclear.

- Dyspnea and fatigue may be the only presenting symptoms for a geriatric patient experiencing a myocardial infarction.
- Acute decompensated heart failure is the most common cause of admission for patients over 65 years of age. Human trafficking victims most frequently seek healthcare services from Emergency Departments. Healthcare professionals, alert to signs of trafficking, can guide supportive care for victims.
- There is a higher risk for respiratory syncytial virus, pneumonia and influenza in this population, especially those with chronic medical conditions.

Pregnancy

- Beyond 20 weeks gestation, supine position should be avoided. Maternal position should be lateral or lateral tilt to prevent compression of the inferior vena cava and aorta by the pregnant uterus.
- Presentation with a complaint of shortness of breath, absence of any known comorbidities and normal pulse oximetry readings may be “benign” dyspnea of pregnancy. This may occur as a normal response to increased partial oxygen tension in pregnancy that enables adequate fetal oxygenation.
- Potentially serious causes of dyspnea during pregnancy that should be considered include pulmonary embolism, dysrhythmia, pulmonary edema, pneumonia, asthma and cardiomyopathy.
- Incidence of pulmonary embolism is 5 to 10 times higher in pregnancy and the early postpartum phase.
- A pregnant abdomen may cause mechanical interference with breathing.

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Additional Information: Dyspnea/Respiratory Distress Adult. PDF. Download

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