Definition:
1. An uncomfortable sensation or awareness of breathing
2. A frequent and often devastating symptom of cancer and other end of life illnesses

Causes:
1. Direct effects of cancer, e.g.:
   - airway obstruction  
   - parenchymal lung involvement  
   - pleural/periocardial effusion  
   - lymphangitic carcinomatosis  
   - muscle weakness*  
   - superior vena caval obstruction  
   - may be secondary to neuromuscular disease, cachexia, steroid myopathy, phrenic nerve paralysis

2. Indirect effects of cancer, e.g.:
   - pneumonia  
   - pulmonary embolus  
   - anemia

3. Cancer treatment, e.g.:
   - radiation- or chemotherapy-induced pneumonitis

4. Unrelated to cancer, e.g.:
   - chronic obstructive lung disease  
   - congestive heart failure  
   - motor neuron disease

Approach:
1. Determine the underlying cause(s):
   - history and physical  
   - investigations as appropriate

2. Treat the underlying cause(s), if possible and clinically appropriate. Specific situations:
   a) Airway or SVC obstruction
      - consider radiotherapy (consult oncologist)  
      - try dexamethasone 10 mg po/sc bid x 48 hrs; if effective, taper to minimal dose required
   b) Lymphangitic carcinomatosis
      - try dexamethasone
   c) Pleural effusion
      - consider therapeutic thoracentesis; if effective, consider pleurodesis or placement of a pleural catheter for recurrent effusion (consult respirologist/thoracic surgeon)

3. Treat the symptom:
   a) Oxygen
      - effectiveness variable → assess individual response
   b) Opioids
      - if already prescribed for pain, titrate to relieve dyspnea  
      - if opioid naive, start Morphine shortacting 5-10 mg po/2.5-5 mg sc q4h around the clock and 2.5-5 mg po/2.5 mg sc q1h prn → titrate (remember laxatives and antiemetic)  
      - current evidence does not support the use of nebulized opioids
   c) Bronchodilators
      - consider if history of asthma, chronic obstructive lung disease or smoking
   d) Midazolam
      - for refractory severe dyspnea in patients expected to die within days to hours  
      - refer to Tips on Palliative Sedation

Remember that the endpoint is relief of subjective dyspnea, not physical signs of respiratory effort (family members may need to be educated).

REMEMBER: For referrals, questions, or telephone consultations call 496-1300 weekdays and weekends.

Palliative Care Tips are now available on our Website: www.palliative.org