Curricular Components That Support the Functions of EPA 4: Manage the Use of Supplemental Respiratory Equipment Such as Oxygen, Ventilators, and Airway Clearance Devices

1. Selecting the appropriate oxygen delivery device, flow, and fraction of inspired oxygen according to patient needs
   - Distinguishes between flow and fraction of inspired oxygen
   - Critiques the indications for nasal cannula, high flow nasal cannula, and face masks including simple, venturi, and nonrebreather masks

2. Distinguishing the indications of different interfaces, settings, and modes in various models of invasive and noninvasive ventilator support
   - Applies invasive and noninvasive modes of ventilator support as clinically appropriate
   - Recognizes physiologic implications of changes in ventilator settings
   - Employs troubleshooting techniques related to mechanical ventilation
   - Assesses interfaces for invasive and noninvasive ventilator support
   - Implements ventilator changes to improve ventilation and oxygenation

3. Interpreting testing that assesses ventilation and oxygenation status, such as physical exam, blood gas, pressure and volume ventilator waveforms, pulse oximetry, and polysomnography
   - Synthesizes a constellation of signs from noninvasive methods such as physical exam, pulse oximetry, and end tidal CO2
   - Interprets results from blood gases accurately
   - Analyzes ventilator waveforms to assess physiologic parameters
   - Determines clinically significant vs. insignificant findings on polysomnography

4. Selecting appropriate airway clearance devices to improve mucociliary clearance
   - Recognizes the appropriate uses of high frequency oscillatory devices, Intermittent Positive Pressure Ventilation, and Cough Assist Device
   - Recommends the use of handheld airway clearance devices appropriately
   - Prescribes inhaled medications to facilitate mucolysis

5. Assessing and documenting ongoing need for supplemental respiratory equipment and developing weaning or escalating plans when appropriate
   - Describes the considerations when weaning or escalating ventilator support
   - Formulates management plans to wean or escalate oxygen and ventilator support
   -Engages with the patient/family and other team members to explain considerations for altering ventilator
support and shares decision-making regarding changes in management plans with them
• Understanding the indications for tracheostomy, care of patients with a tracheostomy, and indications for decannulation

6. Communicating and coordinating care with health care professionals, home health, and insurance personnel
  • Writes appropriate home health orders
  • Prescribes equipment and supplies with cost consideration
  • Communicates effectively with staff across inpatient and outpatient settings and home health agencies

Curricular Components Authors

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