

10 Hypoxia

Unexplained oxygen desaturation

START

- 1 Call for help and a code cart**
 - ▶ **Ask:** “Who will be the crisis manager?”
- 2 Turn FiO₂ to 100%** at high gas flows
 - ▶ Confirm inspired FiO₂ = 100% on gas analyzer
 - ▶ Confirm presence of end-tidal CO₂ and changes in capnogram morphology
- 3 Hand-ventilate** to assess compliance
- 4 Listen** to breath sounds
- 5 Check...**
 - ▶ Blood pressure, PIP, pulse
 - ▶ ET tube position
 - ▶ Pulse oximeter placement
 - ▶ Circuit integrity: look for disconnection, kinks, holes
- 6 Consider actions to assess possible breathing issue...**
 - ▶ Draw blood gas
 - ▶ Suction (to clear secretions, mucus plug)
 - ▶ Remove circuit and use ambu-bag
 - ▶ Bronchoscopy

- 7 Consider causes...**
 - ▶ Is Airway / Breathing issue suspected?

NO airway issue suspected

Circulation

- Embolism
 - Pulmonary embolus
 - Air embolism – Venous *go to* ▷ CHKLST 1
 - Other emboli (fat, septic, CO₂, amniotic fluid)
- Heart disease
 - Congestive heart failure
 - Coronary heart disease
 - Myocardial ischemia
 - Cardiac tamponade
 - Congenital/anatomical defect
- Severe sepsis
- If hypoxia associated with hypotension, *go to* ▷ CHKLST 9

Drugs / Allergy

- Recent drugs given
- Dose error / allergy / anaphylaxis
- Dyes and abnormal hemoglobin (e.g., methemoglobinemia, methylene blue)

YES airway issue suspected

Airway / Breathing

- Aspiration
- Atelectasis
- Bronchospasm
- Hypoventilation
- Obesity / positioning
- Pneumothorax
- Pulmonary Edema
- Right mainstem intubation
- Ventilator settings, leading to auto-peep

Additional DIAGNOSTIC TESTS

- Fiberoptic bronchoscope
- Chest xray
- Electrocardiogram
- Transesophageal echocardiogram