

# P 10 Hypoxia

Unexplained oxygen desaturation

## START

- 1 **Call for help and a code cart/defib.**
  - ▶ Ask: “Who will be the crisis manager?”
- 2 **Turn FiO<sub>2</sub> to 100%** at high gas flows
  - ▶ Confirm inspired FiO<sub>2</sub> = 100% on gas analyzer
  - ▶ Confirm presence of end-tidal CO<sub>2</sub> 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, go to ▷CHKLST 21
  - Air embolism – Venous, go to ▷Pedi CHKLST 1
  - Other emboli (fat, septic, CO<sub>2</sub>, amniotic fluid)
- Heart disease
  - Congestive heart failure
  - Coronary heart disease
  - Myocardial ischemia, go to ▷CHKLST 16
  - Cardiac tamponade
  - Congenital/anatomical defect
- Severe sepsis
- If hypoxia associated with hypotension go to ▷Pedi 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, go to ▷CHKLST 14
- Hypoventilation
- Obesity/positioning
- Pneumothorax, go to ▷CHKLST 19
- Pulmonary Edema, go to ▷CHKLST 21
- Right mainstem intubation
- Ventilator settings, leading to auto-peep

### Additional DIAGNOSTIC TESTS

- Fiberoptic bronchoscope
- Chest x-ray
- Electrocardiogram
- Transesophageal echocardiogram