

## Hypoxia

v1.2

Manage all patients during a hypoxic crisis on 100% oxygen regardless of underlying lung pathology

### START: IMMEDIATELY NOTIFY DRIVER, STOP SAFELY

#### 1 Adequate oxygen delivery

- Follow Key Basic Plan
- If SpO<sub>2</sub> low, is it accurate? Consider whether poor perfusion could be the problem

#### 2 Airway

- Own airway: confirm patency, listen for noise
- ETT/trache: confirm position/patency and exclude leak
- Check capnography trace
- Consider whether you need to isolate equipment (Box B)

#### 3 Breathing

- Check chest symmetry, breath sounds, RR, SpO<sub>2</sub>, measured VT<sub>exp</sub>
- Is there ETCO<sub>2</sub>?
- Review airway pressure using ventilator and/or Mapleson C system
- Consider possible causes (Box C) and potential actions:
  - Suction, bronchodilator, additional PEEP, diuretic, fluid challenge
- Consider muscle relaxation / additional sedation to optimise ventilation

#### 4 Circulation

- Check rate, rhythm, perfusion
- Re-check BP, verify cardiovascular infusions and fluid running
- If circulation unstable, consider if this is secondary to hypoxia

#### 5 Equipment

- Check power, oxygen, pumps and monitoring

#### 6 Next steps

- Consider lung ultrasound
- Consider arterial blood gas

#### Box A: CRITICAL CHANGES

- If problem worsens significantly, or a new problem arises, go back to **START** of Key Basic Plan
- If Transfer Practitioner or Transfer Doctor transfer, contact Remote Duty Consultant
- Consider contacting Leadership SPOC for support, if required

#### Box B: ISOLATE EQUIPMENT

- Ventilate lungs using Mapleson C system connected DIRECTLY to ETT or tracheostomy tube connector
- **DO NOT** use the HME filter, angle piece or catheter mount
- If **remains** difficult to ventilate with Mapleson C system, re-connect ventilator
- If increased pressure **NOT** manually confirmed, assume problem with ventilator/circuit/HMEF/catheter mount: **check and replace**

#### Box C: POTENTIAL CAUSES

- Increased airway pressure (→ EAC)
- Inadequate chest movement or expired volume: assist/increase ventilation
- Asymmetrical chest expansion:
  - Exclude bronchial intubation/foreign body/pneumothorax
- Consider other potential causes:
  - Laryngospasm and stridor (→ EAC)
  - Bronchospasm (→ EAC)
  - Anaphylaxis (→ EAC)
  - Circulatory embolism
  - Cardiac ischaemia (or infarction) (→ EAC)
  - Cardiac tamponade
  - Unrecognised blood loss
  - Aspiration
  - Pulmonary oedema