The Leeds Teaching Hospitals NHS Trust

Delayed Emergence

Immediate Action

- Remain in a place of safety with trained airway staff
- Assess pupils & neurology
- Assess for residual neuromuscular blockade
- Perform an Arterial Blood Gas measurement
- Measure blood sugar
- Alert the neurosurgical team

Useful Drugs

Naloxone

Dose	0.1mg to 0.2mg IV every 2 minutes, against response
	Maximum of 10 mg in 24 hrs

Glycopyrrolate and Neostigmine 0.5mg/2.5mg/ mL

Dose	1-2ml over 10 to 30 seconds
	0.02ml per kg

Sugammadex

Dose	Routine 2mg/Kg
	Moderate 4mg/Kg
	Profound 16mg/Kg

Ongoing Management 0-15 mins

Oxygenation, ventilation, and positioning

- Correct hypoxaemia
- Maintain a normal PaCO2
- If the patient has been in the prone position – sit head up (>30°) to allow venous drainage

Neuromuscular Blockade and opioid reversal

- Prepare and reverse NMB with neostigmine & Glycopyrrolate or Sugammadex – guided by anaesthetist
- Obtain and prepare IV naloxone if clinically appropriate

Monitoring

- Check pupil size and reactivity to light – compared to preoperative recordings
- Continuous ECG monitoring – rule out cardiac cause
- Consider inserting arterial line for BP monitoring and blood sampling

Ongoing Management 15-30+ mins

Blood pressure

- Support blood pressure with vasopressors within 20% of baseline

Prepare for transfer to CT / IR

- Neurosurgical team to request imaging and discuss with Radiologist On-Call
- Prepare transport ventilator, monitor and equipment

Ventilation

- Aim for a PaO2 of >13KPa
- Aim for a PaCO2 of 4.5KPa – 5KPa (may change in presence of COPD)

Destination

- Keep theatre prepared for a potential return to theatre for exploration
- Alert ICU

Seizures

- Consider the possibility of subclinical seizures