

KIDS Clinical Guideline: Endotracheal Intubation

DECISION TO INTUBATE:

Conference call with local paediatrician, anaesthetist and KIDS consultant

ASSESSMENT

DIFFICULT AIRWAY SUSPECTED?

- craniofacial syndrome / limited neck movements or mouth opening / obesity
- Previous documented difficult intubation



[DIFFICULT AIRWAY GUIDELINE](#)

FASTING: Treat all emergent situations as having a full stomach

HAEMODYNAMIC STATUS

- Known heart disease/ dysrhythmia/ cardiac surgery?
- Inappropriate heart rate/ hypotension/ poor peripheral perfusion/ overt heart failure?

PREPARATION [Refer to [checklist](#)]

- **DRUGS** [[drug calculator](#)] Check allergies
- Induction: **ketamine 1-2mg/kg** (routine intubation) **OR thiopentone 2-4mg/kg** (status epilepticus)
- Paralysis: **rocuronium 1mg/kg** (sugammadex available?)
- Fluid bolus: **10mL/kg** (colloid or crystalloid)
- Atropine 20 microgram/kg if newborn
- **VENOUS ACCESS**- secure?
- **EQUIPMENT** gas supply, suction, airway equipment
- **MONITORING**- ECG, SpO2, 1 min cycle BP, ET CO2
- **TEAM** - identify and assign roles
- **PRE-OXYGENATE** and optimise position

HAEMODYNAMICALLY STABLE CHILD

ANAESTHETIC INDUCTION -

- once pre-oxygenation satisfactory

INTUBATION

- Oral route preferred
- Release cricoid pressure if view impaired
- Each attempt <30s or SpO2 <95%
- If unsuccessful in three attempts, go to [DIFFICULT AIRWAY GUIDELINE](#)
- Insert nasogastric tube to decompress stomach

HAEMODYNAMICALLY UNSTABLE CHILD

ATTEMPT ONLY AFTER DISCUSSION WITH KIDS CONSULTANT!

OPTIMISE HAEMODYNAMIC STATUS BEFORE INTUBATION

- Give fluid boluses unless in heart failure
- Start peripheral adrenaline infusion
- Correct hypocalcaemia & acidosis

ANAESTHETIC INDUCTION

- use lower incremental doses & titrate to effect
- Ketamine 0.2-0.5mg/kg, rocuronium 1mg/kg
- Resuscitation dose of adrenaline standby

INTUBATION

- Most competent member
- Team to be prepared for resuscitation
- Defibrillator on standby desirable

POST-INTUBATION

Confirm endotracheal tube position

- Direct visualisation
- End-tidal CO2 waveform detected
- Bilateral chest expansion
- Auscultation

Secure endotracheal tube [[guidance](#)]

Chest X-ray in all [tube tip at T2-T3 level]

Start sedative infusions [[drug calculator](#)]

- **Morphine:** 50mcg/kg bolus → 20-40mcg/kg/hour
- **Midazolam:** 0.05mg/kg bolus → 1-2mcg/kg/min [avoid in neonates]

Continue ventilation: suggested settings

- Rate: age appropriate
- Tidal volume 6-8ml/kg
- Limit Ppeak <30mbar
- PEEP 4-8 mbar
- Inspiration time 0.6-0.9s
- FiO2 to keep SpO2 94-98%

If sudden collapse / cardiac arrest rule out **DOPES:**

tube **D**isplacement, tube **O**bstruction, **P**neumothorax, **E**quipment failure, **S**hunts