

# INTUBATION

***This procedure must be undertaken or supervised by an experienced person  
Do not attempt to carry out this procedure unless you have demonstrated your  
competence at intubation***

## ELECTIVE INTUBATION

- Use pre-medication

### Equipment

- Suction
- Oxygen with pressure limiting device and T-piece or 500 mL bag and appropriate size mask
- ETT tubes 3 sizes (diameter in mm):

Weight of baby (g)	ETT
<1000–1250	2.5
1250–3000	3.0
>3000	3.5

- Hat for baby to secure tube, ETT fixing device, forceps and scissors
- Laryngoscopes x 2, stethoscope, oropharyngeal airway

### Preparation

- Ensure cannula in place and working
- Ensure all drugs drawn up, checked, labelled and ready to give
- Check no contraindications to drugs
- Ensure monitoring equipment attached and working reliably
- If NGT in place, aspirate stomach (particularly important if baby has been given enteral feeds)

### Premedication

- Give 100% O<sub>2</sub> for 2 min before drug administration
- Continue to give 100% O<sub>2</sub> until laryngoscopy and between attempts if more than one attempt necessary

### Drugs

***Choice of drugs depends on local practice  
Analgesia and muscle relaxation can improve likelihood of successful intubation***

### Muscle relaxants

***Administer muscle relaxants only if you are confident that the team can intubate baby quickly. Do not use a muscle relaxant unless adequate analgesia has been given***

## PROCEDURE

- Lift laryngoscope: do not tilt
- Avoid trauma to gums
- Cricoid pressure: by person intubating or an assistant
- Suction secretions only if they are blocking the view as this can stimulate the vagal nerve and cause a bradycardia and vocal cord spasm
- Insert ET tube (ETT)
- Advance ETT to desired length at the lips
- General recommendation is to advance ETT no further than end of black mark at end of tube (2.5 cm beyond cords), but this length is far too long for extremely preterm babies

- See Table **Length of ETT** for approximately where markings of the ETT should be at the lips

**Table: Length of ETT**

Approximate weight of baby (kg)	Length of ETT (cm) at lips
<1	5.5
1	6.0
2	7.0
3	8.5
3.5	9.0
4	9.5

- Auscultate chest to check for bilateral equal air entry
- if air entry unequal and louder on right side, withdraw ET tube by 0.5 cm and listen again
- repeat until air entry equal bilaterally

***Do not leave baby with unequal air entry***

- stabilise tube using ETT fixation method in accordance with unit practice
- request chest X-ray: **adjust ETT length so that tip is at level of T1–2 vertebrae and document on nursing chart and in baby's hospital notes**

**Intubation failure**

- If intubation unsuccessful, seek help from someone more experienced
- If there is a risk of aspiration, maintain cricoid pressure
- Continue bag and mask ventilation with 100% oxygen **until successful intubation achieved**