

Pediatric anesthesia

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Pediatric anesthesia

- Content
- Preoperative assessment
- Premedication
- Induction
- Maintenance
- Extubation
- Fluids



Preoperative assessment

- Lab
- Cold. Indication – risk

No anesthesia if:

- Fever (38 C)
- Cough
- Ronchi
- Whooping cough, 6 months
- Pneumonia, 6 weeks
- Viral croup, 6 weeks

Premedication

- Pro – Con
- Clonidine (Catapressan[®]) iv, po, pr
- Midazolam (Dormicum[®]) 0,3-0,5mg/kg pr/po (max 10mg). 0,05-0,1 mg iv
- Sufentanil (Sufenta[®]) 1,5 microg/kg nasal
- Morfin 0,025-0,1mg/kg

Induction



Induction

- Atropin? 10-20 microg/kg iv. RSI
- Sodium thiopental = Sodium pentothal = Thiopental = Thiopentone sodium = Trapanal 5-10mg/kg iv, pr?
- Propofol (Diprivan[®]) 2-4mg/kg iv
- Ketamine (Ketalar[®], Ketanest[®], Ketaset[®])

Induction

- Mask – iv



Induction

- Monitoring



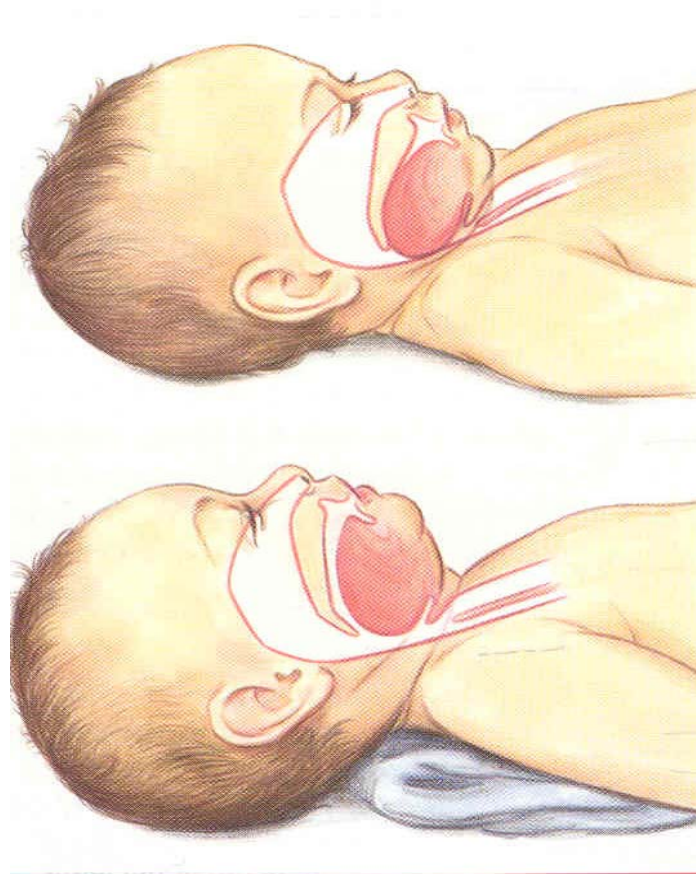
Induction (Airway)

- Position head
- Chin lift
- Jaw thrust
- Oropharyngeal, nasopharyngeal
- LMA
- Intubation

Induction (Airway)



Induction (Airway)



Induction (Airway)



Figure I.4. Chin lift in infants

Induction (Airway)



Figure I.5. Jaw thrust

Induction (Airway)



Induction

Intubation

- Succinylcholin, RSI. Nb! Bradycardia and asystolia
- Musclerelaxant, which?
- Atracurium or Rocuronium at home
- Type of blade?
- Oral or nasal tub? Cuffed uncuffed?

Induction

Memory rules

- From the teeth to trachea. $\text{Age}/2 + 12\text{cm}$
- From the nose to trachea. $\text{Age}/2 + 15\text{cm}$
- Tidal volume: 7 ml/kg
- Tube size: $\text{Age}/4 + 4\text{mm}$
- Tube size: Distal phalang, little finger

Induction

- Premature: 2,5-3,0 mm
- New born, full term: 3,5mm
- $MV=1L + 1/10$ of the weight
- Systolic BP = 80 mmHg + age

Maintenance

- Gas
- TIVA
- Blocks
- Nitrous oxid?

Extubation

- Temperature
- Pain management
- Antiemetics
- Reversal of muscle relaxant:
- Neostigmin 50 microg/kg
- Glucopyrron 10 microg/kg
- Extubation, when?

Fluids

0-10kg	100 ml/kg/d
10-20kg	50 ml/kg/d
20-	20 ml/kg/d

4-2-1 rule

Fluids

- Acute: 10-20-50-100 ml/kg/5-20min
- Traditional rehydration preop. Two types:
- 5% of the body weight during 4 h
- 10% of the body weight during 4 h

During operation, maintenance

- Child: 5 ml/kg/h, Choice of fluids
- Adult: 1,0-1,5 ml/kg/h
- Blood loss

