

Issues in Paediatric Anaesthesia 2004

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Topics to be covered

- Fasting Guidelines
- Parental Presence at Induction
- The Child with a Cold
- Day Stay Tonsillectomy
- Inguinal Hernia Repair in Ex-Premis



Fasting Guidelines

- Three Scary Facts !

The Stomach is NEVER empty

Aspiration WILL happen

We can only MINIMIZE the risk



Fasting Guidelines

- A recent study in USA showed that up to **30%** of children presenting for day surgery are **UNFASTED**
- Most of the stress associated with surgery for small children is due to fasting



Fasting for Infants

- Breast milk is probably absorbed faster than formula (Low Casein / Whey ratio)
- Most babies feed 3-4 hourly
- Getting Anaesthetists to agree on fasting times for breast milk was difficult.



**ROYAL CHILDREN'S HOSPITAL
DEPARTMENT OF ANAESTHESIA AND PAIN MANAGEMENT
FASTING GUIDELINES**

ELECTIVE SURGERY AND ANAESTHESIA

No milk, food, lollies or chewing gum for at least **6 HOURS**

Clear fluids are allowed up to **2 HOURS** before surgery

For children **less than 6 months** of age:

Breast feeding is allowed up to **3 HOURS** before surgery

Formula or Cow's milk feeding is allowed up to **4 HOURS** before surgery

Any variation to these guidelines will be by instruction of the anaesthetist of the day.



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Patients should be fasted from first contact until further instructions from the duty anaesthetist



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FASTING GUIDELINES

The following guidelines are issued by the Department of Anaesthesia and Pain Management of the Royal Children's Hospital concerning fasting for all patients, whether surgical or medical, undergoing a general anaesthetic or sedation.

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Note:

Usual commencement times for surgery are:

Morning Operation 08.30 am (fasting from 02.30 am for food or milk, 06.30 am for clear fluids)

Afternoon Operation 13.30 pm (fasting from 07.30 am for food or milk, 11.30 am for clear fluids)

Cardiac Surgery 07.30 am (fasting from 01.30 am for food or milk, 05.30 am for clear fluids)

Clear fluids are those fluids which, when held to the light, are transparent. They include glucose-based drinks, cordials and clear juices. This does not include particulate or milk-based products.

Diabetes Mellitus patients will have special requirements and the anaesthetist of the day should be consulted.

Parental Presence at Induction

- Parents are encouraged
- Good substitute for Pre-Med



Parental Presence at Induction

- Parents are encouraged
- Good substitute for Pre-Med
- It is also OK to NOT be present
- Anaesthetist must be willing
- Unnecessary under 6 months of age
- Who are we treating? (The Parent ?)



The Child with a “cold”

- The average 3 year old child gets a cold every 3 weeks
- Cancel Day Surgery if :
 - Systemically Unwell
 - Temperature > 38.5 C
 - Signs on Examination (Chest, Ears etc.)
 - Parents want to Cancel

Day Stay Tonsillectomy

- Done on the **Kitchen Table** in early 1900's
- **Common** Outpatient procedure in 1920's
- **No deaths** reported before overnight admission became popular in 1940's to reduce infection



Day Stay Tonsillectomy

- **Indications today :**

Recurrent Tonsillitis	- Home
Sleep Apnoea	- Stay

- **History repeating itself!**



Criteria for day stay tonsillectomy at CHW

- Recurrent tonsillitis (no OSA)
- systemically well
- no intercurrent illnesses
- live within 30 min road access
- family able to communicate well (in English?)
- morning case
- Age > 5 yrs

Parental acceptance of day stay tonsillectomy - CHW

- 80% preferred day stay arrangement
- 20% would have preferred overnight stay:
 - pain management (1)
 - concern re oral intake (1)
 - lack of confidence with sick child at home (4)

Stewart, Baines, Dalton. A&I C
2002; 30:641-46

What are the risks of bleeding?

- Hard to know - reported from 2-10%
- Primary bleeding rate of approx 0.5-1%
- Secondary bleeding rate of approx 0.5-1% (but up to 7% in adults - Ranjit et al)
- Can be predicted by intraop blood loss
- Tends to occur within 2 hours of operation - (Nicklaus et al 1995 Arch of Otolaryngology)

“Care by Parent Unit” RCH

- 229 patients
- 2 rooms available
- After surgery and recovery (3 hours)
- Review by surgeon before transfer to CBPU



If the doctors thought it was safe for your child to go home would you prefer to go home or stay in hospital?

- A. Remain in Hospital - 72%
- B. Go home - 28%



Reasons for wanting to stay in hospital

- Happier being close to medical help - 91%
- Felt it was safer - 46%
- If something bad happened wouldn't know what to do - 13%
- Other issues
(multiple siblings, travel time) - 3%
- Its FREE - 2%



Inguinal Hernia Repair in Infants



3 month old infant.

Now 5 kg

Ex 35/40.

Breast feeding

How would you manage this baby?



Risk of Apnoea

- **Ex prem (small)** **20-40%**

Sick
<1.5 Kg,
currently having apnoeas
- **Ex prem (big, no co-morbidity)** **10-20 %**
- **Term Baby** **0-2 %**

Overnight Stay

- **Term babies** < 46 weeks
(> 37 W)
- **Ex Prems** < 52 weeks
(> 37 W)

Apnoea Monitoring

- Pulse Oximetry
- ECG
- Apnoea Blanket (Plethysmograph)

Usually one of the above
Should be OXIMETRY



Duration of Stay?

- Must be **APNOEA FREE** for 12 hours



Technique

- General Anaesthesia (fit, term baby)
- Regional Anaesthesia
with volatile agent
at beginning (mod. risk ex prem)
- Spinal Anaesthesia (high risk ex prem)

Airway Management GA

- Laryngeal Mask – 1.5
- Endotracheal Tube
 - Spontaneous Ventilation
 - Relaxant

Spinal Anaesthesia

- 0.2 ml/kg of 0.5% Bupivacaine
- 25 g needle
- Distance to Lig. Flavum = 1.5 mm/kg