CONSIDERATIONS FOR THE PAEDS ANAESTHETIC ASSISTANT

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Overview

- Introduction
- Starting the day
- Setups
- Specific equipment
- What about you
- Thankyou
- Questions
Starting the day

- Check what type of surgery are we doing today?
- Is the room set up for this particular list?
  - Eg. Bed in correct position
- Who is my anaesthetist?
  - do they use induction room or theatre for the children to go to sleep?
  - may need to set up 2 machines
  - will they sing them a song? Need a chair for the parent?
    (preferably without wheels)
Setting up your anaesthetic machine

- Machine test. Level 2 test.
- Right equipment
- Emergency equipment
- Do you need a ventilator for your patients? Does it work?
- Mandatory and necessary
Set ups

- Checking your setups and seeing if you have the correct equipment for those patients and the surgery required.

What does that look like?

**remember** to set up for **PLAN B** as well!!

- Always set up for plan B!
Airway
Breathing
Circulation

Going through it systematically
Airway

- How old is the child?
- What size face mask will fit there face? Do I have a backup mask?
- What size guedel will we use?
- How long is the procedure?
- Do I need a hme (heat moisture exchange) filter?
- Think about dead space. Do I need the smaller filter?
- What size laryngoscope blade do we need?
- Do we need a smaller handle?

**appropriate size headring under head. Do I need a shoulder roll instead? Neutral head position?**
HOW ARE WE VENTILATING THEM?

- **T-Piece**
  - making sure there is a hole in the end of the bag

- **Circle System**

- **Bag Size**
  - What is their lung volume? Approx 7-8mls/kg
  - Need a 500ml bag? 1 L bag?
Breathing

- What airway will be required for that type of surgery?
- Patient spont. breathing?
- Do we need to breathe for them?
- How long is the surgery?
- Are multiple tubes required?
  - microlaryngoscopy/tonsillectomy

*equation:* \[-\text{age}/4 + 4\]

- Tubes:
  - Reinforced, rae, uncuffed, ivory, microcuff, north facing
- Extras:
  - Magills, y-suction, styletes
  - Appropriate syringes to inflate them with
* feeding tubes
- Short procedure
- Patient spont. breathing most of the time

- Type of LMA’s :-
  - classic
  - reinforced
  - proseal /supreme

- Depends on patients weight

Anaesthetist and surgeon preference
Eg dental, ent- tonsils, plastics- lesions all over face- allowing airway to be moved around.
Eg reinforced Lma.
Tapes

- How are we securing the tube?
  - thin brown tape
- Micropore?
- Tegaderms?
- Trouser legs?
- Where does it need to sit on the face?
- Can’t tape it in yet?
- Nasal atm. Till later? Teggie?
- Does this child have allergies to tapes?
- Then Anaesthetist preference!

EYES

Need to protect the eyes.
- Micropore to close them. Most common tape to use.
- Think about where the surgery is- facial? Maybe need tegaderms so they can be prepped over
- Going prone? Pressure areas
Circulation

- Does this patient require fluids?
  - aware they have been fasting. Will they be able to eat and drink straight after the surgery?
  - Local anaesthetic sprayed in their airway?
  - blood loss?
- Be aware of the patient’s approx. blood volume, aware of fluid overload
  - Using a burette, recording how much you have given the patient.
  - Do I require a pump to give a certain volume?
Monitoring

Standard monitoring
- Pulse ox, bp, ecg

- Think about the patient and type of surgery
- Will ecg be in the operating area
- Size of patient. Appropriate equipment
- Pressure areas
- Bp on arm or leg can variate readings
- Fingers too small for our normal peg pulse ox
- When applying the wrap around probe – aware not to cut off circulation!!
Warming

- How long is the surgery?
- Will they lose heat?
- Appropriate size bear hugger to patient size
- Insertion of the bear hugger nozzle - aware of where the surgery will be.

- Other styles are over the top bear huggers. These are our lie on ones
- Plastic is amazing! Can see patient and keep them warm

- Monitor their temperature
- Orally, nasally, bottom
Caudals

Used for pain relief. Needle goes into epidural space.

**Equipment**
- dressing pack
- prep
- non retractable needle.
- sterile gloves
- local anaesthetic -A generous amount of local anaesthetic is given. approx. 5-10mls depending on the age and size of the child.

**Positioning:**- Child is held on their side, knees up at 90 degrees, tuck chin to chest.
Penile Blocks

For pain relief
- Similar set up to the caudal.

* Equipment
  - Dressing pack
  - Prep
  - Needle and syringe
  - Local anaesthetic
  - Sometimes a sonosite- Anaesthetist preference
  - Sterile gloves

* May need to do an epidural. Use trolley and prepare appropriately.
EXTRA EQUIPMENT

**Bougies**: 5 Fr. for a 3 tube
**Stylets**: can go in a 2 tube

**Airway Local Anaesthetic**
- Cass Needle
- Mad device
- Cophenylcaine spray
- Different situations.

**Hotline**- giving blood,
long operation, filter
Arterial line
CVL needed?
Pressure areas

Be aware of pressure areas. Paediatric patients get pressure areas as well!!

- Cannula protection - use some spongy foam tape
- Arms, hands, feet, knees.
- What cords are on the body? Ecg - do I need green gauze or some pig fat under them for pressure areas? Diathermy, fluid line, 3 way taps.
Common Surgeries

Orthopaedics
MUA 5y old
- Tube 4.5,5,5.5
- Lma 2-2.5
- Warming - over body
- Fluids

General
Hernia 4yr old
- Tube 4,4.5,5
- Lma 2
- Warming –over body/under body
- Fluids

ENT
Tonsils 5 yr old
- Rae Tube  4.5,5,5.5
- LMA Flexi 2-2.5
- Over body warmer
- Fluids
*may spray cords

Dental
Extractions 4yr old
- North facing tube 4.4.5,5
- Magill forceps
- Throat pack and normal saline
- Foam for the head, teggies for the eyes
- Flexi Lma 2
- Over body warmer
- Fluids
*may spray cords, may use reinforced tube
Other thoughts

- Trauma? What to do
- Go back to ABC.
- What type of injury have they had?
- What airway are we going to give them?
- How are we breathing for them
- Have we lost a lot of volume? Does the patient need blood?
Almost ready 😊

- Talk to the Anaesthetist about the list
- Anything I need to be aware of?
- Interesting anatomy? Syndrome?
- Explain what I have ready and what my thoughts are as to navigate the situation

- Thinking the steps ahead. What is my plan A? B? C? D?

**be aware when inducing the patient- it can be very overwhelming if everyone is talking to them to calm them down! Preferably let the Anaesthetist talk to them.**
What about you?

- **Airway**
  - Do you have an airway?
  - Is it clear?
  - Is your tongue stuck to the roof of your mouth?

- **Breathing**
  - Are you holding your breath?
  - Remember to breathe when it gets a bit hairy

- **Circulation**
  - Check in with your Anaesthetist – circle of communication.
  - Talk about the situation
  - Do you need me to hold the airway, get a cannula in, get another pair of hands?
  - Sux? Adrenaline? Compressions?
Smile !!!!!

- NOW YOU ARE READY FOR YOUR LIST!!!
- SO:-
- Enjoy yourself!
- You are apart of a team
- You are helping somebody everyday!
Thankyou!

- Thankyou to Janeen McIntyre for the invitation to talk
- Thankyou to the Mater Hospital for allowing me to photograph our inductions rooms
- Thankyou for listening!

**References**

- Fellow colleagues and anaesthetists.
Questions ?