

TASTER WEEK IN PAEDIATRIC ANAESTHESIA GUIDE

What RMCH can offer ST4 doctors

The 2010 Curriculum for a CCT in Anaesthesia describes Intermediate Training as benefitting from dedicated blocks of training in, amongst others, paediatrics.

Paediatrics

Paediatric anaesthesia is best learned in an exclusively paediatric environment, although it is recognised that this is not always possible. Some competencies may be acquired quickly but confidence comes with experience and a **minimum period of one month up to a maximum of three months in practical paediatric anaesthesia is recommended**. Whenever possible such training is best delivered in blocks of at least one month duration [Reference section on minimum recommended training sessions] and trainers should spend not less than the equivalent of one full operating session per week in paediatric anaesthetic practice

Learning outcomes:

- Build on the knowledge and skills gained during Basic Level training
- Develop in-depth knowledge and understanding of the anaesthetic needs of children and neonates
- Understand the potential hazards associated with paediatric anaesthesia and have obtained practical skills in the management of such events

Core clinical learning outcome:

- Deliver safe perioperative anaesthetic care to ASA 1 and 2 children aged 5 years and over for minor elective and emergency surgery (e.g. inguinal hernia repair, orchidopexy, circumcision, superficial plastic surgery, grommets, manipulation of fractures, appendicectomy) with distant supervision

NB: All competencies annotated with the letter 'E' can be examined in any of the components of the Final examination identified in the FRCA examination blueprint on page C-73.

The Curriculum also states that paediatrics is best learned in an exclusively paediatric environment, such as the Royal Manchester Children's Hospital. During the ten sessions [five "full days"] that you are with us at the Children's Hospital, we hope that you will be able to broaden your knowledge and understanding of the differences between anaesthetising children and adults. By the end of your time, we would like you to feel more comfortable with the management of small children so that if you are on call at your base hospital and a paediatric emergency came through the door, you would be able to start management with confidence until senior assistance arrived. In the intermediate curriculum, there are eight skills, which you should acquire:

- Demonstrates the ability to resuscitate all ages, both basic and advanced [BLS and ALS]
- Demonstrates correct preoperative assessment in all ages down to 1 year
- Demonstrates the ability to use the correct technique for induction, maintenance and monitoring for elective and emergency anaesthesia
- Demonstrates correct selection, management and monitoring of children requiring diagnostic and therapeutic procedures carried out under sedation
- Demonstrates ability to maintain perioperative physiology [e.g. glucose, fluids and temperature] in children down to 5 years of age
- Demonstrates strategies for, and the practical management of, anaesthetic emergencies in children [e.g. loss of airway, laryngospasm, failed venous access, anaphylaxis including latex allergy]
- Demonstrates correct postoperative pain management, including the use of regional and local anaesthetic techniques, simple analgesics, NSAIDs and opioids
- Demonstrates the ability to communicate clearly with children & young people, parents and carers. including those with cognitive, communication or behavioural problems

We feel that outcomes 2, 3, 5, 6, 7 and 8 are all achievable during your ten sessions. Resuscitation should be done in a formalised resuscitation setting and procedures performed under sedation are not done with enough predictability to ensure exposure in only ten sessions.

You will be supervised at all times whilst you are at the Children's Hospital; you are **not** expected to run a list on your own and you are **not** expected to carry the emergency bleeps (1538 and 2856). If you want exposure to the emergency list or if you want to join the team in the Emergency Department on a trauma call, you are welcome to do so however this may be of variable intensity and in all cases should be discussed beforehand with the emergency consultant for the day, your listed consultant and the College Tutor.

Lists are available in advance. Since the time available is short, it would be to your advantage to pick up a copy of the list the night before and see what is on the next day. If there is a complex case, do some reading around the subject and try to come up with a provisional anaesthetic plan. There are lots of resources available online, particularly the BJA Educational supplement articles. We would expect you to accompany or assist the consultant in pre-assessing the patients prior to anaesthesia and this is one of the outcomes in the Curriculum.

The theatre staff are generally extremely experienced and will often predict in advance the appropriate airway for each case however you should be able to select, using the various formulae, the correct size of ETT or LMA for each child on your list. The anaesthetic machines are all Draeger Primus machines. In the anaesthetic room, a Mapleson F circuit is often used to induce anaesthesia and a circle system is used in theatre. Be sure you have checked the machines and are happy with using them. You will be able to use a variety of airway adjuncts and types of laryngoscope; if you haven't ever used a Miller blade or a paediatric Guedel, ask for the experience.

In paediatric practice, gas inductions are much more common than in adults however an iv induction is still usually the preferred method. Obtaining confidence in paediatric iv access is a skill which you will be able to develop whilst at RMCH since every child needs an iv cannula either for induction or immediately following a gas induction.

In theatre, the patients will often receive fluids – perioperative fluid management is often a source of confusion for trainees and this is an ideal opportunity to clarify any difficulties. Likewise most patients will require post operative analgesia and anti-emetics at the correct dose and time intervals; you are **not permitted** to write up and sign for any drugs on the prescription sheet but you are expected to have a good knowledge of the appropriate drugs and the doses thereof. Theatre is also an ideal opportunity to discuss other aspects of paediatric anaesthesia such as:

- Neonates
- Thermoregulation in paediatric patients
- Specific paediatric problems, ie: pyloric stenosis, trachea-oesophageal fistula
- Consent in paediatric patients
- Management of critically ill children and preparation for transport

Overall we would like you to enjoy your time with us and we are generally very approachable and happy to teach and explain – we appreciate that for some people paediatrics is a little overwhelming at the beginning. If you have any

difficulties, feel free to approach any of the consultants and we will do our best to make sure your time is productive and fulfilling.