

TRAINING PROGRAMME FOR JUNIOR ANAESTHESIA RESIDENTS

Training objectives:

Learn about the anatomical and physiological changes which take place during growth from neonate to a young child and its effects on anaesthesia.

The trainee should learn:

- To resuscitate the paediatric patient
- Perioperative management; preoperative assessment and preparation anaesthetic management and postoperative care of paediatric patient
- Ambulatory anaesthesia
- Management of surgical emergencies in children. This includes stabilisation e.g. fluid resuscitation prior to induction.
- Regional Techniques: local and regional anaesthetic methods
- Acute Pain Management
- Neonatal physiology, pathophysiology and applied pharmacology. Special problems of the preterm and ex-prem baby
- Paediatric medical and surgical problems including common syndromes and their implications for the anaesthetist
- Principles of paediatric intensive care i.e. management of the common critical care problems; ventilatory and circulatory support
- Safe transport for paediatric patients
- Selection, management and monitoring of children for diagnostic and therapeutic procedures carried out under anaesthesia or sedation
- Presentation skills by participating in teaching / CME sessions

Training assessment:

Log book case-mix with report of cases done

By the end of the posting, the resident should be competent in:

1. Providing safe anaesthesia and post-anaesthesia care for infants and children undergoing routine surgical, diagnostic and therapeutic procedures
2. Recognising when the clinical conditions of the patient or the proposed procedure requires skills, facilities or support beyond his own capability or institution
3. Resuscitation for neonates, infants and children
4. Basic knowledge of acute pain management and critical perioperative care for neonates, infants and children

TRAINING PROGRAMME FOR SENIOR ANAESTHESIA RESIDENTS

Paediatric Anaesthesia Training Module

Training objectives:

- Revision of the junior anaesthesia residency programme
- Develop a Specialist's approach, an interest in continuing education, in teaching and acquiring teaching skills. The senior resident should develop a responsible attitude and commitment towards the training of junior staff
- The resident should assist or participate in research projects in the department and help participate in teaching of medical students, nurses and junior residents

Training assessment:

Log book case-mix with report of cases done.

TRAINING PROGRAMME FOR FELLOWS

This training programme is formulated for anaesthetists from foreign countries who wish to increase their knowledge and skills in paediatric anaesthesia

Duration

The fellowship programme is for one year duration.

Entry Criteria

The candidate must:

- Have a postgraduate degree or its equivalent in anaesthesia
- Have a minimum of 3 years general anaesthesia experience
- Be competent in the English language and familiar with English medical terms

Expected learning / learning objectives

On completion of the program, the Fellow will be able to:

- Provide safe anaesthesia care for infants and children undergoing routine surgical, diagnostic and therapeutic procedures
- Resuscitate neonates, infants and children
- Manage children on the acute pain service
- Provide critical peri-operative care for neonates, infants and children

Teaching Programme

Learn about the anatomical and physiological changes which take place during growth from neonate to a young child and its effects on anaesthesia.

The Fellow should learn:

- To resuscitate the paediatric patient
- Perioperative management; preoperative assessment and preparation anaesthetic management and postoperative care of paediatric patient
- Ambulatory anaesthesia
- Management of surgical emergencies in children. This includes stabilisation of the patient. e.g. fluid resuscitation prior to induction
- Regional Techniques: local and regional anaesthetic methods
- Acute Pain Management
- Neonatal physiology, pathophysiology and applied pharmacology techniques. Special problems of the preterm and ex-premie baby
- Paediatric medical and surgical problems including common syndromes and their implications for the anaesthetist
- Safe transport of paediatric patients
- Selection, management and monitoring of children for diagnostic and therapeutic procedures carried out under anaesthesia or sedation
- Presentation skills by participating in teaching sessions

LEVEL OF SUPERVISION FOR SENIOR RESIDENT/ REGISTRARS AND ASSOCIATE CONSULTANTS

Definitions

1. Senior resident (SR):
 - a. An anesthetist who has passed the MMED (anaesthesia) or equivalent and completed ACGME-I based
2. Senior resident doing a paediatric elective rotation (SRE)
 - a. As above with the additional caveat of doing an additional 4-8 months of paediatric anaesthesia rotation
3. Supervisor
 - a. A consultant with the department of paediatric anaesthesia
4. Levels of supervision
 - a. Direct supervision
 - i. Level 1: in the same OT
 - ii. Level 2: in the OT complex but supervisor is not always in the same OT
 - b. Indirect supervision
 - i. Level 3: in Hospital but not in the OT complex
 - ii. Level 4: not in hospital
5. ASA status of patients
 - a. ASA 1: a normal healthy patient

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- b. ASA 2: a patient with mild systemic disease that is well controlled
- c. ASA 3: a patient with severe systemic disease
- d. ASA 4: a patient with severe systemic disease that is a constant threat to life
- e. ASA 5: a moribund patient who is not expected to survive with or without surgery
- f. E: emergency surgery

Department Guidelines for Supervision

General Guidelines:

1. **All supervisors must be available for telephone consultation at all times if on call**
2. All residents/ registrars must consult the supervisors for any issues regarding patient care that they are not comfortable with
3. Supervisors should be informed of any code blue situation that involves a child even if the situation has been suitably managed the next morning, particularly if there were issues regarding the management of the child

Specific Guidelines:

1. **SHARP Senior Residents (core rotation)/ Rotating Senior Residents from other hospitals (non-SingHealth)**
 - a. The supervisor must be informed of the following cases which may require **level 1, 2 or 3** supervision at the discretion of the supervisor
 - i. Neonates

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- ii. Children below 6 years of age
 - iii. Patients who are ASA 3 and above
 - iv. Airway compromise
 - v. Major trauma
 - vi. Cardiothoracic surgery
 - vii. Neurosurgery
 - viii. Remote services including radiology and interventional cardiology
- b. Types of cases that may proceed with **level 4** supervision for emergency cases
- i. ASA 1 or 2 patients who are above the age of 6 years undergoing uncomplicated minor surgery
 - ii. All other cases, including those requiring remote anaesthesia, will require a telephone consultation with the supervisor

2. SHARP Senior Residents doing paediatric electives

- a. The supervisor must be informed of the following cases which may require **level 1, 2 or 3** supervision at the discretion of the supervisor
- i. Neonates
 - ii. Children below 3 years of age
 - iii. Patients who are ASA 3 and above
 - iv. Airway compromise
 - v. Major trauma
 - vi. Cardiothoracic surgery

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- vii. Neurosurgery
 - viii. Remote services including radiology and interventional cardiology
 - b. The types of cases that may proceed with **level 4** supervision for emergency cases
 - i. ASA 1 or 2 patients above the age of 3 years undergoing uncomplicated minor surgery
 - ii. All other cases, including those requiring remote anaesthesia, will require a telephone consultation with the supervisor
3. **Associate consultants (specialist board accredited, KKH paediatric anaesthesia staff)**
- a. Should consult whenever in doubt
 - b. Must inform supervisors for cardiothoracic/ interventional cardiology cases. An appropriate level of supervision will then be determined.