

Appendix 1

Logbook for the SSAI Inter-Nordic fellowship in paediatric anaesthesia and intensive care medicine

The aim of the logbook is to register the practical training achievements during the two-year fellowship program.

The clinical training should cover all essential fields of paediatric anaesthesia and intensive care medicine. The exchange program may complement the clinical practice of the home clinic. The tutor will follow the enrolment of cases in anaesthesia and intensive care medicine during the fellowship.

The fellow should participate in clinical and education rounds of the home clinic and serve as a full time paediatric anaesthetist in appropriate position of the clinic. The fellow must participate in all four courses organised during the two-year SSAI fellowship program.

The fellow should become familiar with the following topics of anaesthesia:

- Neonatal anaesthesia
- Anaesthesia for thoracic and cardiovascular surgery
- Anaesthesia for orthopaedic surgery
- Anaesthesia for neurosurgery
- Anaesthesia outside the operation theatre
- Management of a difficult airway
- Management of central (epidural/sacral) and peripheral blocks
- Management of acute and chronic pain

Number of cases:

- Anaesthesia for 30 neonates of less than 30 days of age
- Anaesthesia for 100 infants of between 1 and 12 months of age
- Insertion of 20 central venous catheters
- Insertion of 20 arterial lines

The fellow should become familiar with the following topics of intensive care:

- Ventilator treatment
- Total parenteral nutrition
- Fluid management
- Circulatory support
- Treatment of trauma and burned children
- Transportation of the critically ill child

Other topics:

- Technique for advanced intubation/evaluation of the airways
- Knowledge about ethical standards and experience in dealing with parental psychology and their emotional strain during the treatment of the sick child.

Appendix 2

Curriculum

Content of the program

- Two years of paediatric anaesthesia fellowship
- A minimum of 3 months of paediatric intensive training
- A one month exchange program in a foreign country
- Four theoretical courses
- A distance-learning program
- Web-based testing
- An academic project

After fulfilling the course, the candidate will be awarded an SSAI fellowship certificate on paediatric anaesthesia and intensive care medicine.

Aims of the program

This course aims at educating paediatric anaesthetists with the overall objectives of enhancing the quality of anaesthetic care for paediatric patients, improving patient safety by reducing the incidence and severity of anaesthesia-related complications, increasing patient satisfaction in the Scandinavian countries and improving the development of paediatric anaesthesia as a subspecialty.

Course participants

Applicants are members of the SSAI and specialists in anaesthesiology with a special interest in paediatric anaesthesia. Participants are selected according to their affiliation, academic merits, clinical skills and motivation by the discretion of the steering committee of the fellowship program. The number of participants will be decided by the steering committee. The fellowship will start every second year.

Educational strategies

The training objectives will be achieved using a number of training methods. The program is based on interactive participation and reflection on competences. A scientific, evidence-based approach to the practical and theoretical work during the participation of the fellowship is mandatory.

Mentor

The host department will appoint a personal educational supervisor for the trainee. If this mentor is not a member of the Fellow Program Steering Committee, one member of the SC should be appointed a second mentor. Fellows are required to maintain a portfolio – a collection of evidence of learning. The portfolio should be updated continually and reviewed every three-fourth month by the mentor. This will serve as a stimulus to ensure all training requirements are fulfilled. Fellows are expected to maintain a logbook of the clinical activities. The logbook is part of the portfolio.

Clinical training

During the two-year period, the fellow will be employed in an appropriate position at one or more different departments. A minimum of one year of clinical training should be at a university clinic. The fellow is expected to become involved in teaching and training, research and audit, and management of a paediatric anaesthetic service.

Exchange Program

The fellowship includes an exchange program of one month in a foreign country.

Theoretical courses

Four courses (5 + 4 + 4 + 5 days)

Presentations will be case based. Presentations must incorporate newest evidence available. The course form will include lectures, case discussions, pro- and con debates, workshops, group discussions and simulation. Feedback will be given on content, form and method. The candidates will be assigned topics for lectures.

Course 1 – Anaesthesia basic

Odense week 38 - September 19th - 23th 2022

5 days course 1-2 months after the beginning of the fellowship program. The program must be a mixture of lectures/workshops/simulation by candidates, steering committee members and local experts. By the end of the course the projects and groups for the projects will be presented. The topics will be decided by the steering committee.

- Introduction
- Website and testing
- Projects
- Paediatric pharmacology
- Respiratory physiology
- Paediatric airway management
- Preoperative evaluation
- Premedication (pro/con)
- Postoperative care
- Monitoring and equipment
- Induction (i.v. vs. inhalation)
- Maintenance of anaesthesia
- Point of care ultrasound
- Management of a difficult peripheral iv access
- Use of NMBA
- Anaesthesia awareness in children
- Fluid therapy
- Haematology and transfusion strategies
- Regional anaesthesia
- Pain management (drugs & administration)
- Chronic pain
- Vascular access
- Complications and mortality of anaesthesia

Course 2 – Anaesthesia neonatal

April/May 2023

Four days of primarily neonatal anaesthesia and intensive care medicine. Lectures, workshops, case discussion and simulation will be used.

- Neonatal physiology
- Special neonatal pharmacology
- Fluid and nutrition (per- and postoperative)
- Thermal regulation
- Neurotoxicity and anaesthesia
- Local anaesthesia
- Pain treatment
- Anaesthesia for the former preterm baby
- N-CPAP
- Ventilatory support (conventional/HFV)
- Neonatal resuscitation
- Congenital cardiac malformations
- Congenital diaphragmatic hernia and gastroschisis
- Esophageal atresia
- NEC/atresia
- Primary pulm hypertension and perioperative treatment
- The “blue” neonate; CDH? CHD? Sepsis? (cases)
- Inborn errors of metabolism/syndromes

Course 3 –Anaesthesia special

Fall 2023

Four days course with focus on special anaesthesia.

- Cardiac anaesthesia – basic
- Anesthesia of the uncorrected patient with CHD
- Anesthesia of the post cardiac patient
- Progressive neuromuscular disorders – anaesthesia
- Paediatric trauma
- Burns
- Traumatic brain injury – anaesthesia
- Difficult airway
- Airway-/facial abnormalities
- Drowning and hypothermia
- Paediatric resuscitation
- Therapeutic hypothermia
- Syndromes
- Osteogenesis imperfecta and anaesthesia
- AV-shunts (cerebral, others)
- Rapid sequence induction (pro/con)
- Use of ultrasound in cannulation or blockade
- “I’ve found these equipment to be useful/rubbish”-database
- Teamwork/leadership with or without simulation
- Anaesthesia outside OR
- Difficult intubation /airway
- Regional anaesthesia/ blockades
- Home ventilation / tracheostomies
- Transportation of critically ill child

Course 4 – Intensive care medicine

Spring 2024

5 days course at the end of the second year with mainly intensive care medicine. The projects will be presented by the candidates during the course.

- Ventilatory strategies
- Acute airway problems (RS, astma, epiglottitis)

- Extubation the PICU setting (timing and complications)
- Complications of long term tracheal intubation
- Sepsis in the PICU
- Inotropes
- Treatment of hepatic failure (eg. MARS)
- Renal failure
- CRRT in the PICU
- Sedation and treatment of pain in the PICU
- Nutrition: Iv+ enteral
- Brain death and donor treatment
- Difficult parent / facing parents when critically ill child
- Termination of critical care (end of life decision)
- Scoring systems in PICU and data management
- ECMO and other support
- Traumatic brain injury – PICU
- Meningitis
- Epilepsy
- Progressive neuromuscular disorders – PICU

Estimated costs

Four courses of four to five-days will be held during the program. The language is English. Total cost for the four courses will be approx. 6.000 Euros per fellow. The cost for each course will be approx. 1.500 Euros per fellow, divided into:

Course fee each course 750 Euro, travel expenses 250 Euro, accommodation and food 500 Euro.

The participating centers will host the candidates without costs during their exchange; however salary and travel expenses must be covered by the host clinic.