



European Society for Paediatric Anaesthesia

ESPA Fellowship

Vision paper for creating a European fellowship in paediatric anaesthesia

Torsten Lauritsen, Karin Becke, Christopher Eich & Riku Aantaa
01-01-2014

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ESPA fellowship educational program

Aims of the programme

This fellowship 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, and increasing patient and care-giver satisfaction.

Content of the programme

- Two years of continuous paediatric anaesthetic clinical training
- One month of paediatric intensive training as a minimum – ideally the period should be 3 months
- One month exchange programme in a foreign country or another approved institution
- Four theoretical courses – 16 days and more than one ESPA congress
- A distance-learning programme
- Web-based testing
- Academical project
 - Local project on improvement of safety and quality of paediatric anaesthetic service
 - Teaching paediatric anaesthesia (talks, workshops, courses, case reports, etc.)
 - Scientific project

After fulfilling the course, the candidate will be awarded an ESPA fellowship certificate on paediatric anaesthesia.

Course participants

Applicants must be members of the ESPA 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 programme.

Organization

The ESPA Executive board is the responsible body. The educational committee is responsible for setting up a steering committee or faculty for the fellowship programme. A new fellowship program will be started every year. Ideally each course will have 20-24 participants (candidates).

For a start and for the first two years the program will be centrally organized and run by the steering committee. The experiences from these two fellowship programs will be the fundament of creating a European paediatric anaesthesia fellowship network. Within the network regional fellowship programs can be set up using the common ESPA fellowship portfolio, curriculum and contract. Each local fellowship program will have a faculty of its own and a local program director appointed by the educational committee. The directors will have to members of the central steering committee.

Faculty Qualifications and Responsibilities

Programme Director

The programme director of each faculty must have a broad clinical background and should be appropriately trained and of sufficient seniority to carry out the task. It would be expected that the programme director has a strong educational background, preferably a strong research background and be aware of the current issues related to the specialty.

She/he has the responsibility for the training programme. The program director is also responsible for recruitment of qualified senior members of the steering committee. Each participating clinical institution should be represented in the steering committee (faculty) to ensure local ownership and dedication to the clinical training of the candidate. The responsibilities of the programme director are:

- Preparation, periodic review and, if necessary, revision of a written outline of the educational goals and the detailed particulars of the programme with respect to the knowledge, skills and other attributes required of the trainees for successful participation in the programme
- Participation in the selection of candidates for appointment to the programme in accordance with institutional and departmental policies and procedures
- Co-ordination of the teaching staff and other programme personnel
- Ensure that trainees are provided with prompt, reliable systems for communication and interaction with supervisory specialists as necessary

Faculty

The educational core of the fellowship programme is the faculty or steering committee members. Each institution offering a clinical position as a fellowship should be present in the faculty. Faculty members should be understood as the core resource of the educational programme. They are the teachers, stewards, agents of knowledge transmission, and most importantly role models for the trainees.

The faculty members must be experts in paediatric anaesthesia and must have a continuous and meaningful role in the fellowship programme. The responsibilities of the faculty members are:

- Participate in the selection, planning and coordination of the different fellowships
- Act as the local representative of the programme and as such promote and facilitate the training of the trainee.
- Act as mentor for their trainee and responsible for hers/his clinical education
- Participate in the theoretical courses

Participating institutions

The ESPA board will approve the participating institutions. The participating institution must fulfill predetermined criteria regarding its case load and spectrum. A specific check-list for institutional self-assessment is attached as appendix 1.

Educational strategies

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

Mentor

The host department will appoint a mentor, i.e. a personal educational supervisor for the trainee. Trainees are required to maintain a portfolio – a collection of evidence of learning. The portfolio should be updated continually and reviewed every fourth month by the personal educational supervisor (most often the local member of the steering committee). This will serve as a stimulus to ensure all training requirements are being fulfilled. Trainees will be expected to maintain a log book of the clinical activities. The log book (see attachment) is part of the portfolio.

Clinical training

During the two-year period the trainee will be employed in an appropriate position at 1 or 2 different departments. A minimum of one year of clinical training should be at a university clinic or otherwise appropriate and ESPA-approved teaching institution. If the home department is at a district general hospital, the first year of training should take place at a university department, or equivalent. The trainee is expected to become involved in teaching, training, research, audit, and management of a paediatric anaesthetic service.

Exchange Program

The training period includes an exchange programme with a clinic in a foreign country or another approved institution. The exchange period should be no less than 1 month.

Theoretical courses

4 courses (4 x 4 days) and minimum one ESPA congress.

During the fellowship the candidate must attend 4 theoretical courses and the ESPA congress. The courses are organized by the steering committee. The content is a mixture of expert sessions and sessions by the trainees. Presentations during the theoretical courses will be case-oriented. Presentations must incorporate newest evidence available. Each theoretical course ~~form~~ will include lectures, case discussions, pro- and con debates, workshops, group discussions and/or simulation. Feedback will be given on content form and method.

Course 1 – Anaesthesia basic

Four days course 1-2 months after the beginning of the training 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 vs rectal)
- Maintenance of anaesthesia
- Use of NMBA
- Anaesthesia awareness in children
- Fluid therapy
- Haematology and transfusion strategies
- Regional anaesthesia
- Acute pain management (drugs & administration)
- Chronic pain
- Vascular access
- Complications and mortality of anaesthesia
- TIVA

Course 2 – Anaesthesia neonatal

Four days of primarily neonatal anaesthesia and intensive care medicine. Overlap of topics from first course must be avoided.

- 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
- Oesophageal atresia
- NEC/atresia
- Primary pulmonary hypertension and perioperative treatment
- The “blue” neonate; CDH? CHD? Sepsis? (cases)
- Inborn errors of metabolism/syndromes

Course 3 – Anaesthesia special

Four days course of paediatric anaesthesia subspecialties.

- Cardiac anaesthesia – basic
- Anaesthesia of the uncorrected patient with CHD
- Anaesthesia 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

Four 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, asthma, 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: lv+ enteral
- ECMO and other support
- Traumatic brain injury – PICU
- Meningitis
- Epilepsy
- Progressive neuromuscular disorders - PICU
- 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

Projects

During the fellowship programme the candidates will in groups have to focus on an academic topic.

The aims of the projects are to develop guidelines, systematize evidence or collect new evidence to improve patient care in the European countries as well as to develop local protocols for the improvement of safety and quality of paediatric anesthetic care. Main focus will be on paediatric anaesthesia and intensive care medicine. To emphasize the European perspective and to secure ownership of the results the projects will be carried out in groups with representatives from different countries and with backup from the steering committee.

Each group will present their projects at the final course as a draft of treatment recommendations or guideline based on evidence. When no evidence exists or is of lower level, is extrapolations from adults or animals it must be stated. Prior to the last course the drafts must be sent to the steering committee and the other candidates. Each presentation must be based on the existing evidence and if such does not exist be based on discussion within the group and based on opinion from experts. After presentation of the guideline faculty and candidates will discuss the results. The group will then incorporate the suggestions in the final document and mail it to the faculty and the candidates.

The final result will have to be presented at the ESPA congress.

Evaluation

The candidates have to fulfill all elements in the fellowship programme:

- Logbook
- Theoretical courses
- Clinical exchange
- Clinical position focusing on paediatric anaesthesia
- Paediatric intensive care medicine rotation (minimum of 1 month)
- Academical project
- ESPA congress (minimum 1 during the fellowship programme)
- Pass the MCQ after each theoretical course
- Pass a final ESPA exam in paediatric anaesthesia



Appendix

Self-assessment checklist



Organization

ESPA Fellowship Network

