

# **CORE CURRICULUM**

## **Training objectives**

### **Contents of clinical training**

The training program will cover all essential fields of Intensive Care Medicine. This can be organized either on a general intensive care unit with complement of medical and surgical specialists or by combining training in several specialized intensive care units.

The intensive care units participating in the training program should fulfil the following requirements:

1. Designated medical and nursing directors.
2. Dedicated intensivists.
3. Full in house coverage of patient care round the clock.

The training will include:

- Approximately 12 months in a general intensive unit.

The remaining 12 months should consist of training in at least two of the following intensive care units with:

- Cardiovascular surgical, thoracic surgical and cardiac intensive care patients.
- Neurosurgical and neurological intensive care patients.
- Neonatal/pediatric intensive care patients.
- Burn-injuries.

The period of time spend on each intensive care unit may vary according to educational purposes.

- CoBaTrICE will be used and implemented in the training program. [www.cobatrice.org](http://www.cobatrice.org)
- The PACT modules should be actively used in preparation for the European Diploma examination.

### **Aims of the training**

- Acquire comprehensive theoretical knowledge in intensive care medicine.
  - Acquire sufficient clinical experience and technical skill to identify and handle complex clinical problems and diseases encountered in the intensive care unit.
  - Acquire knowledge and mastery of the medical technology used in the intensive care units.
  - Acquire knowledge of appropriate ethical standards and ability to cope with the psychological and social effects of critical illness on patients and their relatives.
  - Acquire ability to take full responsibility for the quality of treatment and care of the critically ill patient.
  - Acquire ability to work in a multi disciplinary team.
  - Acquire knowledge of contemporary research fields.

### **Areas of training**

The program provides acquisition of advanced theoretical knowledge and training in cognitive, attitudinal, practical and procedural skills including application of indications and contraindications, recognition of pitfalls, management of complications of diagnostic and therapeutic procedures, interpretation of data obtained from clinical examination, monitoring and laboratory investigations and determination of actions based on theoretical considerations and the available clinical information.

## **Methods of training**

- Promotion of quality care in the ICU and efficient use of critical care resources with the supervision of the tutor and/or other advanced training instructors.
- Daily clinical rounds.
- Performing critical care procedures.
- Active participation in clinical conferences.
- Evaluation of treatment modalities and participation in quality improvement.
- Intensive Care Medicine services on a 24-hr/day basis.
- Unit management.
- Communication and collaboration.
- Participation in continuing medical education and research programs.
- Participation in the 6 seminars organized by SSAI.
- Current with the medical literature.

## **Evaluation**

- Discussions with the tutor and/or the advanced training instructors every 3 months.
- Joint meetings arranged by the SSAI program committee at each of the 6 seminars.
- A written report evaluating the practical and theoretical training objectives of the 2 year SSAI-coordinated training program, made by the trainee.
- The filled out forms in the portfolio of CoBaTrICE have to be sent to the committee at the end of training program.
- European Diploma in Intensive Care Medicine.

## **Contents of the training**

Training in practical, attitudinal and procedural skills.

- General/attitudinal: Identification and management of the critical ill patient and awareness of ethical, legal and psychosocial factors.
- Respiratory: recognition, assessment. Basic and advanced management of respiratory distress.
- Cardiovascular: recognition, assessment and management of acute circulatory problems and crises. Basic and advanced cardiopulmonary resuscitation.
- Neurological/Psychiatric: recognition, global assessment and management of common acute neurological and psychiatric problems.
- Renal: recognition, assessment and basic and advanced management of acute renal failure.
- Metabolic: recognition, assessment and treatment of acute metabolic and endocrine crises.
- Gastrointestinal: recognition, assessment and treatment of gastrointestinal crises and hepatic failure.
- Haematological: recognition, global assessment and treatment of coagulation disorders, anaemia and transfusion reactions.
- Infection: recognition, assessment and treatment of manifest or suspected infection.
- Nutrition: assessment of nutritional needs and knowledge of techniques to fulfill these needs.
- Toxicology/drug overdose: recognition, assessment and treatment of intoxications.
- Trauma: assessment and treatment of the trauma patient.
- Monitoring and life support devices.
- Pharmacology: implementation and control.
- Ethical: guidelines, DNR and treatment limitations, patients and family's wishes.
- Organizational: Structure, coordination and quality of patient management. Risk estimation. Triage. Cost containment. Data management systems.

## Theoretical knowledge

Theoretical knowledge of the following topics and disorders (including - when applicable- physiology, pathophysiology, pathology, symptomatology, complications, diagnosis and differential diagnosis, prophylaxis and therapy):

- Basic and advanced CPR and cerebral resuscitation
- Respiratory
- Cardiovascular
- Neurological/Psychiatric
- Renal ( including electrolytes, acid-base balance)
- Infection and antibiotics
- Haematological
- Gastrointestinal
- Obstetrical/urogenital
- Metabolic and endocrinological
- Drug overdose and intoxication
- Immunology and transplantation
- Multiorgan dysfunction
- Trauma, burns and environmental insults
- Sedation and analgesia
- Vasoactive drugs
- Pharmacology
- Monitoring
- Transportation
- Organizational/administrative
- Ethical

## Patient management experience

- Proper training and personal experience in the management of critically ill patients.

For further details please consult:

Society of Intensive Care Medicine and European Society of Pediatric Intensive Care: Guidelines for a training program in intensive care medicine European. Intensive Care Med 1996; 22: 166 - 172.

American College of Critical Care Medicine of the Society of Critical Care Medicine: Guidelines for advanced training for physicians in critical care. Crit Care Med 1997; 25: 1601 - 1607.

## SSAI training program in Intensive Care Medicine

### Time, sites, contents and organizer

Time	Site	Content	Organizer
	Haukeland University hospital, Bergen, Norway	Burn, Infection and Outcome & Organisation	Prof Hans Kr. Flaatten Assoc Prof. Anne Berit Guttormsen
	Karolinska Institutet, Stockholm, and Uppsala University Hospital, Sweden	Neurointensive Care, Pediatric intensive care, Nutrition, metabolism & Liverfailure	Prof. Jan Wernerman Prof. Sten Rubertsson
	Copenhagen University Hospitals, Denmark	Blood-transfusion, Infection and antibiotics, Abdominal inflammation, Acute renal failure, EDIC	Dr. Morten Bestle Dr. Lone Poulsen Dr. Ulrik Skram Dr. Kurt Espersen
	Göteborg University Hospital, Sweden	Respiratory mechanics, Cardiovascular and SIRS/Sepsis haemodynamic management	Prof. Anders Åneman
	Helsinki University Hospital, Helsinki, Finland	Sedation, DIC, Ethics/organization in the ICU, EBM, Goal oriented therapy	Assoc. Prof. Tom Silfvast
	University Hospital, Reyjavik, Iceland	Transport medicine, Ethics, Topics prepared by the participants, Obstetrics	Prof. Gisli Sigurdsson Assoc. Prof Alma Möller