

# **ANAESTHESIOLOGY, PAIN AND INTENSIVE CARE MEDICINE**

---

## ***UEMS/EBA GUIDELINES***

***POSTGRADUATE TRAINING PROGRAM FROM THE STANDING COMMITTEE ON EDUCATION  
AND TRAINING OF THE SECTION AND BOARD OF ANAESTHESIOLOGY***

## Summary

---

ANAESTHESIOLOGY, PAIN AND INTENSIVE CARE MEDICINE .....	1
Summary .....	2
Foreword.....	3
Chapter 1: Generic Competences and Roles .....	3
Chapter 2: Domains and Competencies .....	6
Chapter 3: Domains of General Core Competencies .....	8
Domain 1.1: Disease management, Patient assessment and Preoperative preparation .....	8
Domain 1.2: Intraoperative patient care and Anaesthetic techniques.....	8
Domain 1.3: Postoperative patient care and Acute pain management.....	8
Domain 1.4: Emergency medicine: management of critical conditions including trauma and initial burn management.....	9
Domain 1.5: Medical and perioperative Care of the critically ill / Multidisciplinary Intensive Care Medicine.....	9
Domain 1.6: Practical anaesthetic procedures / Invasive and Imaging techniques / Regional blocks	10
Domain 1.7: Quality, Safety, Management and health economics.....	10
Domain 1.8: Anaesthesia Non-Technical Skills (ANTS).....	10
Domain 1.9: Professionalism and Ethics .....	11
Domain 1.10: Education, Self-directed Learning, Research .....	11
Chapter 4: Domains of Specific Core Competencies .....	12
Domain 2.1: Obstetric Anaesthesiology .....	12
Domain 2.2: Airway management and surgery.....	12
Domain 2.3: Thoracic and Cardiovascular Anaesthesiology .....	12
Domain 2.4: Neuroanaesthesiology .....	13
Domain 2.5: Paediatric Anaesthesiology.....	13
Domain 2.6 Anaesthesiology in remote locations / Ambulatory Anaesthesiology.....	13
Domain 2.7: Multidisciplinary pain management .....	14
Chapter 5: Teaching and Evaluation modalities; Practical and organisational aspects.....	15

## Foreword

---

This document is the result of the work of the Education and Training group of the European Board and Section of Anaesthesiology, under the auspices of the UEMS (Union Européenne des Médecins Spécialistes).

It is published after a large consultation including national specialist societies of represented European countries, as well as different specialist educational and scientific groups in the wake of the European Society of Anaesthesiology.

Finally this document would not exist without the close cooperation of all instances in anaesthesiology active in education, particularly the EDA (European Diploma in Anaesthesiology and Intensive Care).

## Chapter 1: Generic Competences and Roles

---

Anaesthesiology as a specialty has grown from a service specialty strictly within the operating room to have responsibilities in other areas of medicine as well.

The traditional role as a medical specialty, which tasks initially included assessment and evaluation, maintenance of organ function as well as analgesia and amnesia of all patients undergoing diagnostic, therapeutic or surgical procedures, has tremendously changed towards larger, deeper and more holistic competences in the perioperative period, in intensive care medicine, emergency medicine and pain medicine which in many countries are integrated parts of the clinical specialty.

Thus, this work in a broad range of both acute but also less acute domains of practice requires that new generic competences and common principles be defined for the future specialist. Furthermore this requires that the total training time of a specialist lasts **a minimum of 5 years** in the light of the broadened competences required nowadays, of which **at least 1 year** can be specifically directed to ***Intensive Care Medicine training***.

The following four generic competences or roles have been identified as the most important for any European specialist in anaesthesiology.

### *Medical Expert*

---

As a central role, the one of medical expert states that all anaesthesiologists must be familiar with anaesthetic and medical technology, general medicine, including diagnostic and therapeutic methods based on thorough basic knowledge of applied respiratory, circulatory and CNS-associated physiology and pharmacology.

The main field of an expert in anaesthesiology is perioperative medicine, and he/she should acquire all necessary competences enabling him/her to fulfil this expert role and function in a multidisciplinary setting.

- a) The domain of perioperative medicine comprises the continuum in patient care, starting before the operative procedure and lasting well into the postoperative

period ; it concerns all patient categories (including children, pregnant women and those lacking mental capacity) and comprises the following tasks, which practice should be evidence-based:

- Preoperative evaluation and preparation of the patient in cooperation with consultants of other specialties for optimal patient care;
- Preoperative discussion and information of patients, obtaining informed consent;
- Appropriate choice and relevant use of laboratory tests and all other complementary examinations/investigations, as well as use of and referral to interdisciplinary consultations when required;
- Individualized selection and conduct of the safest anaesthetic technique, best suited to the medical conditions of the patient and to the operative procedure planned;
- Knowledge and appropriate use of clinically relevant invasive and non invasive monitoring devices;
- Safe conduct of anaesthesia as well as safe and appropriate perioperative clinical management of problems, incidents and complications;
- Appropriate selection of postoperative management and care, including transfer to other specialized surveillance structures such as ICUs;
- Postoperative pain management as well as treatment of side-effects; recognition and treatment of other postoperative complications.

b) Other major domains of competences are:

- Pre- and in-hospital resuscitation and emergency management of critical conditions, including trauma and burn
- Intensive Care Medicine
- Pain management

## *Leader*

---

The specialist in anaesthesiology should have competences in communication which enables him/her to deal with different aspects of human interactions and relationships. Furthermore, he/she should have competences which permit effective organization and management tasks to take place during professional activities.

The main aspects are:

- Effective, open empathic and respectful communication with patients and family/relatives
- Effective and professional communication with colleagues and other collaborators to ensure optimal patient care
- Multidisciplinary and inter-professional team working in acute care (operating theatre, intensive care unit, emergency and recovery room, labour wards), as well as in the context of resuscitation
- Effective communication in the setting of multidisciplinary teams in the resolution of conflicts, decision-making skills, giving feed-back, taking and assuming leadership

when required, including a knowledge of the relevant medicolegal and ethical frameworks

- Implementation and use of quality assurance programs according to recognized national and possibly international standards
- Implementation and use of local, national and international practice guidelines and standards while complying with national healthcare policies
- Promotion of and participation in better and safer patient care
- Knowledge of administrative and economical aspects of anaesthesiology practice; Operating room management principles
- Cost-effective and relevant use of diagnostic, prophylactic and therapeutic means and measures (health economics)

### *Scholar*

---

It is the specialist's responsibility to develop and maintain a high degree of professional competence, to facilitate development of colleagues and other groups of professionals, and to promote development of the specialty itself. Different aspects comprise:

- Life-long learning and reflective thinking; critical reading and appraisal of up-dated information relevant to clinical anaesthesiology and intensive care medicine;
- Acquisition of basic tools for teaching (including supervision), skills for research and education presentations, teaching of young colleagues, residents and allied healthcare professionals;
- Contribution to research, development, and implementation/transmission of new medical knowledge as well as auditing;
- Contribution to education of patients, students and healthcare professionals

### *Professional*

---

The specialist in anaesthesiology will exhibit irreproachable behaviour and be aware of duties and responsibilities inherent to his/her role as a professional:

- Provision of high quality care with empathy, integrity, honesty and compassion;
- Recognition of one's personal limits and abilities, and appropriate consultation with/ or delegation to others when caring for the patient;
- Medical decision-making based on thorough consideration of ethical aspects in patient care, management of ethical conflicts;
- Knowledge of medico-legal aspects of anaesthesiology practice, with particular emphasis on the management and prevention of conflicts of interest;
- Appropriate management of anaesthetic incidents and accidents, including near-misses.

## Chapter 2: Domains and Competencies

---

In order to fulfil the four professional roles of a specialist in clinical anaesthesiology, a list of domains of expertise and related competencies within these domains have been identified.

The domains of expertise can be divided into “**domains of general core competencies**” and “**domains of specific core competencies**” (see detailed list below). Throughout the course of their 5-year training, trainees should progressively achieve the required level of competence within **each** domain.

### *The 10 domains of general core competencies identified are:*

- 1.1 Disease management, Patient assessment and Preparation
- 1.2 Intraoperative patient care and Anaesthetic techniques
- 1.3 Postoperative patient care and Acute pain management
- 1.4 Emergency medicine: management of critical conditions including trauma and initial burn management
- 1.5 Medical and perioperative care of critically ill patients / Multidisciplinary Intensive Care Medicine
- 1.6 Practical anaesthetic procedures / Invasive and Imaging techniques / Regional blocks
- 1.7 Quality - Safety - Management - Health economics
- 1.8 Anaesthesia Non-Technical Skills (ANTS)
- 1.9 Professionalism and Ethics
- 1.10 Education, self-directed learning, research

### *The 7 domains of specific core competencies identified are:*

- 2.1 Obstetric Anaesthesiology
- 2.2 Airway Management and Surgery
- 2.3 Thoracic and Cardiovascular Anaesthesiology
- 2.4 Neuroanaesthesiology
- 2.5 Paediatric Anaesthesiology
- 2.6 Anaesthesiology in remote locations / Ambulatory Anaesthesiology
- 2.7 Multidisciplinary Pain Management

In the following sections of this document, both general and specific core competencies in each domain have been expressed in the form of a list of “**competence statements**”.

The level of acquisition/expertise for each competence defined in each domain ranges from “A” to “D”:

**A:** Has knowledge of, describes...

**B:** Performs, manages, demonstrates under supervision

**C:** Performs, manages, demonstrates independently

**D:** Teaches or supervises others in performing, managing, demonstrating.

For each domain of expertise, a detailed list of **“learning objectives”** has been identified which are listed in a separate document entitled **“SYLLABUS”**. The prerequisite for each domain is deep knowledge of relevant physiology and pharmacology, as well as areas of basic science i.e. anatomy, clinical biochemistry, clinical measurement/physics.

These learning objectives have been broken down into **“Knowledge, Skills and Attitudes”** that are deemed necessary to achieve the required level of competencies in each domain. The learning objectives were developed as realistic endpoints to be attained by the end of the five years of anaesthesiology residency training; they also represent measurable endpoints that should serve as a basis for the development of future evaluation modalities in order to objectively and reliably measure the acquisition of competencies throughout the curriculum.

However each national society, all teaching hospitals and/or regional institutions are free and stimulated to modify these objectives to suit their own context of teaching and education. Furthermore, they should be linked to evaluation modalities, which are different in each country and hence the objectives should be adapted to suit the existing.

The European syllabus will available on the EBA and ESA websites.

### Domain 1.1: Disease management, Patient assessment and Preoperative preparation

During the course of their training, residents must acquire clinical abilities and skills in the anaesthetic and perioperative care of patients. These include the acquisition of following competences:

- a. Identifies, optimizes, and treats all relevant patient pathologies, including those with direct impact on anaesthetic techniques, including monitoring: **C**
- b. Assesses preoperative risks: **D**
- c. Uses and interprets preoperative investigations appropriately and rationally: **D**
- d. Assesses airway for potential difficulty with intubation and /or ventilation: **D**
- e. Knows and applies recognized principles of preoperative therapy, fasting and premedication: **D**
- f. Elaborates an individualized preoperative anaesthetic strategy, including rational use of drugs and techniques: **D**
- g. Provides appropriate information and obtains informed consent for anaesthesia: **D**

### Domain 1.2: Intraoperative patient care and Anaesthetic techniques

During the course of their training, residents must acquire clinical abilities and skills in the anaesthetic and intraoperative care of patients. These include the following competences:

- a. Provides safe induction, maintenance of, and emergence from general anaesthesia, including choice of drugs, airway management, ventilation techniques and monitoring: **D**
- b. Provides safe regional anaesthesia, including choice of drugs, techniques and monitoring: **D**
- c. Masters knowledge of pharmacology relevant to general and regional anaesthesia, including preparation, administration and monitoring of drug effects: **D**
- d. Knows and uses appropriately and safely all relevant medical/technical equipment, takes appropriate environmental safety measures and prepares the workplace according to local checklists: **D**
- e. Chooses and uses appropriate monitoring devices for safe management of anaesthesia: **D**
- f. Provides adequate record keeping of perioperative procedures and events: **D**
- g. Maintains perioperative homeostasis of organ systems of patients throughout different procedures, including adequate fluid and volume management, safe use of blood and blood products, and maintains normothermia: **D**
- h. Recognizes diagnoses and manages intraoperative critical incidents, including allergic reactions as well as organ dysfunction, stress and inflammatory response: **D**

### Domain 1.3: Postoperative patient care and Acute pain management

During the course of their training, anaesthesia must acquire clinical abilities and skills in the anaesthetic and postoperative care of patients. These include the following competences:

- a. Provides appropriate extubation and handover of a patient in PACU; provides an appropriate summary of relevant clinical features of the patient's care: **D**
- b. Is able to appropriately monitor a patient in PACU: **D**
- c. Knows and applies basic pharmacological pain therapies ; Assesses and adequately treats post-operative pain and post-operative nausea and vomiting: **D**

- d. Recognizes diagnoses and manages postoperative complications, including essentially airway, respiratory and circulatory: **D**
- e. Uses correct discharge criteria and appropriate PACU scores, including possible indication for transfer to ICU; ensures that appropriate treatment is provided beyond PACU setting if required: **D**

#### Domain 1.4: Emergency medicine: management of critical conditions including trauma and initial burn management

During the course of their training, residents must acquire clinical abilities and skills in managing medical and surgical acutely ill patients, including life threatening situations. These include the following competences:

- a. Is capable of handling life-threatening medical and surgical emergency conditions: **D**
- b. Provides basic and advanced pre- and in-hospital critical medical emergency management, including organizational aspects: **D**
- c. Masters initial and advanced pre- and in-hospital trauma management, including organizational aspects: **D**
- d. Masters initial burn management, including organizational aspects: **D**
- e. Is able to handle the complex organization of health care assistance in cases of mass accidents and disasters: **C**
- f. Masters pre and inter-hospital transport: **D**

#### Domain 1.5: Medical and perioperative Care of the critically ill / Multidisciplinary Intensive Care Medicine

During the course of their training, residents must acquire clinical knowledge of medical and surgical conditions and skills for the management of critically ill patients. These include the following competences:

- a. Is able to treat ICU-patients: **D**
  - by defining the clinical problems arising in patients
  - by evaluating the clinical indicators of organ dysfunction
  - by developing further diagnostic strategies in relation to the comorbid conditions and existing complicating factors
  - by developing specific management plans and using evidence-based algorithms, including prognosis on both short and long-term
- b. Recognizes and masters specific aspects of monitoring and equipment, including respiratory therapy and haemofiltration: **C**
- c. Develops appropriate responses to life-threatening problems: **D**
- d. Acquires and applies knowledge of aspects of internal medicine, surgery, infectious disease, obstetrics, trauma care, and anaesthesia relevant to critically ill or severely injured patients: **C**
- e. Can describe the basic principles of ICU care, including paediatric patients; Understands medical and surgical disorders requiring specific ICU treatment and issues surrounding transfer for specialist care e.g. NICU , ECMO etc: **C**
- f. Knows the ethical principles involved in EOL issues in relation to national legislation, and under supervision is capable of participating in the decision of withdrawing or refusing intensive care treatment: **C**

## Domain 1.6: Practical anaesthetic procedures / Invasive and Imaging techniques / Regional blocks

During the course of their training, residents must acquire and master the clinical abilities and skills to perform the following procedures in an appropriate and safe way. These include:

- a. Operates technical monitors and machines and trouble-shoots basic technical malfunctions, including data capture, recording and analysis: **D**
- b. Masters basic and specific skills in:
  - general and regional anaesthesia in elective and emergency situations: **D**
  - vascular access, particularly central venous and arterial lines: **D**
  - management of patients with difficult airway including the use of fiberoptic techniques: **D**
- c. Masters regional peripheral and central blocks for anaesthesia and analgesia: thoracic and lumbar epidural blocks, spinal and combined spinal epidural techniques, peripheral nerve blockade, including management of complications of regional blocks: **D**
- d. Masters resuscitation skills, advanced life support (ALS), and resuscitation skills in infants and children: **D**

## Domain 1.7: Quality, Safety, Management and health economics

During the course of their training, residents must acquire skills to assess the quality of their work, as well as appropriate knowledge in health economics. Adequate performance requires the following competences:

- a. Understands and applies quality assurance (QA) processes in practice as a basis for continuing professional development: **C**
- b. Applies in his/her work the local in-hospital, national, and European guidelines of the quality and safety programs (WHO checklists, patient and operative site identification, transmissible diseases, etc...): **C**
- c. Organizes effectively his/her work with a multidisciplinary team and is aware of his/her own limits and is capable of seeking help when required: **D**
- d. Has knowledge of the relevant European as well as the national and local healthcare infrastructures, practice settings and organisations: **D**
- e. Demonstrates an understanding of both managerial and administrative responsibilities: **C**

## Domain 1.8: Anaesthesia Non-Technical Skills (ANTS)

During the course of their training, residents must acquire non-technical abilities to master interpersonal and organizational tasks during the perioperative care of patients. These include the following competences:

- a. Develops and maintains an overall dynamic awareness of the situation based on perceiving the elements of the operating room environment (patient, team, time, monitoring and equipment) and understands what they mean and anticipates what could happen in the near future: **C**
- b. Makes decisions to reach a judgment or diagnosis about a situation, or to select a course of action, based on experience or new information under both normal conditions and in time-pressured crisis situations: **D**

- c. Manages resources and organizes tasks to achieve goals, be they individual case plans or longer term scheduling issues: **C**
- d. Communicates effectively and works with others in a team context, in any role, to ensure effective joint task completion and team satisfaction: **D**

### Domain 1.9: Professionalism and Ethics

During the course of their training, residents must develop professional and ethical attributes of a specialist in anaesthesiology. These include the following competences:

- a. Formulates clinical decisions with respect to ethical and legal principles: **D**
- b. Communicates effectively with patients and relatives (doctor-patient relationship); involves patients and/or their surrogates in decisions about care and treatment: **D**
- c. Involves fellow colleagues from different other specialties in decision-making about care and treatment, in a respectful manner: **D**
- d. Maintains accurate and legible records, and documentation of clinical activities: **D**
- e. Respects privacy, dignity, confidentiality and legal constraints on the use of patient data: **D**
- f. Supports and participates in activities regarding professional and specialty development: **C**
- g. Within the context of a multidisciplinary team, provides end-of-life and palliative care and applies the ethical and legal guided process of withholding and withdrawing treatment: **C**

### Domain 1.10: Education, Self-directed Learning, Research

During the course of their training, residents must acquire an understanding of the scientific basis of anaesthesia practice including basic statistical concepts and assessing the benefits of applying results of research to clinical practice. Trainees will also be required to develop competences in education and are required to show an attitude towards self motivated learning:

- a. Uses information technology in a goal-oriented way to optimize clinical care: **D**
- b. Participates in, does and initiates literature retrieval, and critically assesses and compiles the information to solve a specific clinical task: **C**
- c. Is able to assess benefits versus risks of applying new scientific results in clinical practice with regards to medical, ethical, legal and economical aspects: **C**
- d. Demonstrates perpetual refreshment of his knowledge through participation to lectures, refresher courses, personal reading, putting emphasis on models of reflective learning: **D**
- e. Has knowledge of the principles of quality assurance programs and critical incident reporting, and basic knowledge in ethics and economics in health care: **C**
- f. Has basic knowledge and understanding of, and be able to describe, modern principles of teaching relevant to medical training: **B**
- g. Is able to identify learning needs of others (patients, relatives, colleagues and other collaborators, students) and choose methods of teaching to support them: **D**
- h. Demonstrates knowledge of basic statistics, criteria for a good clinical study; and critical reading of an article: **D**
- i. Participates in clinical or basic science research leading to peer-reviewed publications: **B**
- j. Is aware of basic concepts of evidence-based medicine: **A**

## Chapter 4: Domains of Specific Core Competencies

---

### Domain 2.1: Obstetric Anaesthesiology

During the course of their training, residents must acquire clinical abilities and skills in the anaesthetic and perioperative care of pregnant women and foetus or neonate. These include the following competencies:

- a. Understands the physiology of pregnancy, labour and delivery: **D**
- b. Has in-depth knowledge of the methods available for the relief of pain during labour and delivery including caesarean section: **D**
- c. Is able to select and perform the appropriate labour analgesia: **D**
- d. Must demonstrate ability to manage the complications of delivery and anaesthesia for delivery: **D**
- e. Is able to perform resuscitation of the newborn: **D**
- f. Manages the safe provision of general and regional anaesthesia and perioperative care for obstetric patients: **D**
- g. Is able to manage the high risk parturient: **C**
- h. Establishes a professional team approach with the obstetricians and midwives: **D**

### Domain 2.2: Airway management and surgery

During the course of their training, residents must acquire clinical abilities and skills in the anaesthetic and perioperative care of patients with surgery concerning the airway and its surrounding structures. These include the following competences:

- a. Is capable of predicting difficulties in airway management through use of appropriate assessment tools: **D**
- b. Manages the airway in patients with both expected or unexpected difficult airway, including use of different devices and techniques and proper application of existing algorithms; manages the airway in trauma situations: **D**
- c. Appropriately manages anaesthesia of the shared airway, safely provides anaesthesia for laryngeal surgery, tracheotomy and laryngoscopy/bronchoscopy including in paediatric patients: **D**
- d. Manages the anaesthetic for laser surgery in the airway, including jet-ventilation: **C**
- e. Manages difficult and delayed extubation after airway interventions: **D**

### Domain 2.3: Thoracic and Cardiovascular Anaesthesiology

During the course of their training, residents must acquire knowledge and skills relevant to the anaesthetic and perioperative care of thoracic and cardiac surgery patients. This includes the following competences:

- a. Evaluates operability for lung resection and selects patients who need preoperative preparation and treatment: **C**
- b. Manages all aspects of one lung ventilation: **C**
- c. Is aware of the perioperative risk factors and the specific postoperative complications of thoracic surgery: **D**
- d. Describes principles of acute and chronic pain management for thoracic surgery including epidural, paravertebral and intercostal blocks: **D**

- e. Is able to describe some emergencies in cardiac or thoracic procedures and their management: **C**
- f. Possesses anaesthetic basic knowledge of cardiopulmonary bypass and other assisting devices: **B**
- g. Can describe principles of invasive monitoring for cardiac surgery including pulmonary artery catheter and transoesophageal echocardiography: **C**
- h. Can describe the basic principles of anaesthetic and therapeutic techniques used for severely compromised cardiac function in high risk patients, for previous cardiac or lung transplanted patients, congenital heart disease patients, and those with implanted pacing or defibrillation devices: **C**
- i. Manages anaesthesia for major vascular surgery, including emergency procedures: **D**

#### Domain 2.4: Neuroanaesthesiology

During the course of their training, residents must acquire clinical abilities and skills in the anaesthetic and perioperative care of patients with surgery and interventions concerning intracranial, spinal and surrounding structures. These include the following competences:

- a. Assesses the neurosurgical patient pre- and postoperatively: **D**
- b. Chooses the appropriate monitoring for neurosurgery and has knowledge of patient positioning for neurosurgical procedures: **C**
- c. Manages the patient with raised IC pressure, and maintains cerebral perfusion pressure: **C**
- d. Knows and applies strategies for cerebral protection and control of intracranial pressure: **C**
- e. Is able to discuss and analyze the risks and benefits of available anaesthetic techniques for all aspects of neurosurgery and neuroradiology: **D**

#### Domain 2.5: Paediatric Anaesthesiology

During the course of their training, anaesthesia residents must acquire clinical abilities and skills in the anaesthetic and perioperative care of paediatric patients as well as resuscitation of the critical ill paediatric patient. These include the following competences:

- a. Recognizes and understands the implication of differences between child and adult including airway management, anatomy, physiology, and pharmacology: **D**
- b. Masters paediatric aspects of monitoring, equipment, and vascular access, as well as anaesthesia including induction, maintenance and emergence of general anaesthesia in children, as well as clinical aspects of fluid management: **C**
- c. Masters postoperative care, pain management and critical care for the paediatric patient: **C**
- d. Initiates and participates in resuscitation of the infants and children in every emergency setting: **D**
- e. Knows the local and national guidelines in paediatric anaesthesia care and is able to take responsibility for transport of all children and neonates to a higher competence facility (including child protection issues): **C**
- f. Is able to communicate effectively and with empathy with the children and their parents, and obtain appropriate informed consent: **D**

#### Domain 2.6 Anaesthesiology in remote locations / Ambulatory Anaesthesiology

During the course of their training, residents must acquire clinical abilities and skills in the anaesthetic care of patients managed outside the OR. These include the following competencies:

- a. Is able to manage and provide anaesthesia outside the OR, taking into account organization of the site (day cases), type of patient (children, elderly, etc...), and type of procedure: **D**
- b. Demonstrates safe and appropriate preoperative assessment and management of the patient; knows how to assess perioperative risks according to existing standards and in the context of remote locations: **D**
- c. Applies principles of safety during X-ray, MRI and other minimally invasive diagnostic or therapeutic procedures in remote locations: **D**
- d. Is able to manage transport to and from remote locations: **D**

### Domain 2.7: Multidisciplinary pain management

During the course of their training, residents must acquire clinical abilities and skills in the care of pain patients. These include the following competences:

- a. Is capable of performing an appropriate pain history, physical examination, and interpret tests accordingly: **C**
- b. Has knowledge of and uses basic validated scales and questionnaires to identify the type of pain, and is capable of measuring and documenting pain evolution: **C**
- c. Knows and applies basic pharmacological pain therapies, has basic knowledge in multimodal analgesia: **C**
- d. Can describe both non-pharmacological and invasive pain strategies: **B**
- e. Communicates with patients and relatives informing them about treatment options and goals, adequately referring the patients for appropriate treatment: **C**
- f. Can describe indications and contraindications for use of physical and psychological therapies, of regional blocks, and of implanted drug administration devices and electrical stimulators: **B**
- g. Demonstrates technical proficiency for following blocks: neuraxial, axillary and peripheral nerve blocks for acute and chronic pain: **C**
- h. Can recognize and describe incidents of interventional procedures and their treatment: **B**

## Chapter 5: Teaching and Evaluation modalities; Practical and organisational aspects

---

As stated in chapter 1, a minimum training time of 5 years is necessary to reach the competencies required to become a specialist in anaesthesiology, of which up to 1 year can be specifically directed to Intensive Care Medicine training. Further acquisition of expert status in sub-specialty areas will require extra training years; these are defined in the respective existing curricula.

Education and training modalities can take various forms and should be best suited to local practice, however with respect to reaching the competencies defined in the present document; the latter should be considered as a framework for commonly agreed minimum outcomes.

Thus trainees are strongly encouraged to keep a logbook of procedures performed, as well as or in conjunction with a portfolio documenting all teaching modalities used to reach the competencies defined. They should seek to obtain from their training institution all regulations, protocols and written procedures for good quality practice.

Likewise, the training institution should be able to define a proper and possibly personalized training program over 5 years, and propose a “tutor” or “mentor” for appropriate follow-up and feed-back to the trainee. It is the responsibility of the head of department and/or his consultants and tutors to have regular meetings with the trainee in order to document progress and provide guidance.

Assessment modalities should include both formative and summative assessments. Formative assessments should take place throughout the 5 year training period, and include different modalities such as resident evaluation tools based on the Mini-CEX or direct observations (of clinical encounters or of procedures), and simulation-based training/evaluation. Further in-training evaluations of knowledge with MCQs or vivas are strongly advised along with completion of a logbook or a portfolio for an appropriate follow-up of the trainee’s progress. (European Journal of Anaesthesiology 2010, 27:673–675)

The EBA endorses the in-training assessment (ITA) as an educational tool, and the EDA (European Diploma in Anaesthesiology and Intensive Care) as a specialist label of excellence for specialist practice in Anaesthesiology. Nine European countries have officially adopted the EDA as their National examination and in some countries; the EDA is the official exit examination. The ITA and EDA are thus widely accepted in Europe as an important way to reach a high standard in our profession.

The ultimate goals for both trainee and head of department is for the first to demonstrate that he/she has become competent in the practice of anaesthesia and for the latter to ensure that the trainee has met the standards for entry into practice.