

**CURRICULUM FOR SPECIALIST  
TRAINING IN ANAESTHESIOLOGY  
CORE TRAINING PROGRAMME FOR THE  
INTRODUCTION YEAR**

*2013*



*Danish Society of Anaesthesiology  
and Intensive Care Medicine*

## **Foreword**

According to section 2 of publication no. 1257 of October 25<sup>th</sup>, 2007 concerning training of specialist doctors, the Curriculum for Specialist training in Anaesthesiology are approved by the Danish Health and Medicines Authority. The publication is available at [www.SST.dk](http://www.SST.dk). The curriculum contains the required theoretical and practical clinical competences for authorisation concerning the Introduction year in the specialist training in Anaesthesiology.

The curriculum is produced in close cooperation with the scientific societies.

The curriculum for specialist training in anaesthesiology is produced by a designated work group under the Danish Society of Anaesthesiology and Intensive Care Medicine (DASAIM).

This publication is a translation of the Curriculum for Specialist training in Anaesthesiology from Danish to English. The English translation was possible due to a grant from DASAIM. The translation was approved by the Educational Committee in DASAIM.

2013

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Chairman of the Educational Committee

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# 1 Introduction

According to section 2 of publication no. 1257 of October 25<sup>th</sup>, 2007 (with later amendments) concerning training of specialist doctors, the Statements of Aims for the medical specialities are approved by the Danish Health and Medicines Authority.

The Statements of Aims define the minimum competences to be achieved and approved during the doctor's specialist training.

The scientific societies have an inherent academic interest to ensure that the competences in the curriculum are relevant and updated – partly in relation to the academic development of the specialities and partly based on the experience achieved during the application of the curriculum and the core training programme.

Separate curricula are produced for the introductory training (1 year) and the core part of the specialty training programme (4 years).

## 2 The General Part

The specialist training is covered by several statutory regulations and terms, which are identical for curricula across all specialities and for both the introductory training and the core training.

The [Danish Health and Medicines Authority website](#) includes a detailed description of the Danish specialist training, including legal framework, organisation, structure, participants, terminology, etc.

## 3 The Anaesthesiological Speciality Part

The curriculum for Specialist training in Anaesthesiology and the Core Training Programme describes the speciality, the required minimum competences to be achieved as well as speciality recommendations for learning strategies and established mandatory methods for competence assessment. Also the mandatory courses and research training for anaesthesiologists are described.

### 3.1 Description of the Anaesthesiology Speciality

Anaesthesiology is a cross-disciplinary clinical speciality that includes the following four areas of function:

1. Anaesthesia and Perioperative Medicine
2. Intensive Care Medicine
3. Pain Management
4. Emergency, Trauma and Pre-hospital Medicine

Approximately 1200 doctors are employed in anaesthesiology in Denmark – 700 of these are specialists in anaesthesiology. The majority of the anaesthesiologists are employed by hospitals with a general function within the speciality or with relation to specific surgical specialities or one of the other areas of function in anaesthesiology. A minority work outside the hospital sector as full-time private practice specialists.

#### *Anaesthesia and Perioperative Medicine*

Anaesthesia and perioperative medicine includes anaesthesia and patient management before, during and after surgery or examination. Anaesthesiology is a rather new speciality and was established in 1950. During the first many years, focus was primarily on the patient in the surgical phase, but gradually focus has spread to other parts of the care pathway, preoperatively, intraoperatively, and postoperatively. This holistic care pathway approach is reflected in the development of methods and techniques with special focus on prevention of complications and long-term schedules for the postoperative period.

The trend is towards a closer relationship and dialogue with the surgeons regarding the individual care pathway as well as the initiatives involving research and development of typical patient categories.

### *Intensive care medicine*

Intensive care medicine includes multidisciplinary and organ-related observation, diagnostics, treatment and care for patients with potentially reversible failure of one or multiple organ systems. There are several types of intensive care units.

- Multi-disciplinary intensive care unit with management of patients from several of the basic specialities
- Mono-disciplinary intensive care unit, designed for a special patient category, such as paediatric, thoracic and neurological surgery
- Postoperative intensive care unit with management of patients following major surgery with the need for more extensive observation and treatment, for example respirator treatment

### *Pain management*

Pain management includes diagnostics and treatment of patients with acute and long-term/chronic pain conditions. In the middle of the 1980ies pain management was established as a specific branch in anaesthesiology. There are 3 different primary types of pain:

- Acute pain
- Pain conditions linked to cancer disease/malignant pain conditions
- Long-term/chronic non-malignant pain conditions

In Denmark, the term "acute pain" does not include postoperative pains as these are seen as an integrated part of perioperative patient management. Most departments of anaesthesiology in Denmark are involved in management of acute pain and cancer pain. Individual locations have cross-disciplinary pain centres, which handle the more complicated non-malignant chronic pain conditions, often in cross-disciplinary cooperation with other specialities and professions.

### *Emergency, trauma and prehospital medicine*

Emergency, trauma and prehospital medicine include multidisciplinary primary management and transport of patients with acute lifethreatening condition due to disease or trauma as well as involvement in disaster medicine organisation. The anaesthesiological function in emergency, trauma and prehospital medicine exist in several different areas:

- In-hospital emergency medicine: management of patients with acute lifethreatening condition due to disease or accident and in-hospital cardiac arrest and acute service.
- Prehospital emergency medicine: for example mobile emergency care units with consultants (MECU), sent out from hospitals to assist in major accidents and disasters.
- Disaster response: coordination, organisation and development of emergency response plans, emergency drills, etc.

### *Research:*

DASAIM is the primary scientific society for anaesthesiology and intensive care medicine in Denmark. Both clinical research and basic scientific research is carried out within anaesthesiology. The trend is that researchers are organised in larger multi-professional research groups. Research in training is high on the agenda. Since 1999 anaesthesiology has been covered by a Cochrane group, who conducts systematic reviews of clinical research.

### *Quality assurance*

The initiatives in the quality assurance area are aimed at medical device safety and systematic data collection regarding risks and complications in anaesthesiology. Since 1972, a clinical database for patients with impaired cholinesterase has existed. In addition, a database for malignant hyperthermia, a database for anaesthetic allergy, and a Danish anaesthetic database exists. The trend is towards establishing larger

databases for collection of data across a wide spectrum of patient categories to identify complication rates and risks in anaesthesiology.

### *Training*

Anaesthesiology is primarily a postgraduate discipline but is more and more represented in pregraduate training. A society for students with a particular interest in anaesthesiology, Society of Anaesthesiology & Traumatology for Students (SATS) has been established.

Since 1986, the speciality has been covered by the Society of Young Anaesthesiologists, FYA, which is primarily focused on educational matters. The society has been the instigator of courses aimed at the introductory training, which since 1992 has been managed by the regional departments of anaesthesiology collaboratively.

The specialist training programme is closely linked with DASAIM and its educational committee. Since the establishment of the speciality in 1950, formal courses have been a part of the specialist training programme. Form and content in the courses have seen constant development and are increasingly based on interactive learning methods, such as simulation-based training. In 1992, the first full-scale simulator for management of critical situations was developed in Denmark. Today, there are several simulation centres/facilities across the country.

### *Further training*

Scandinavia has five formalised further training programmes in intensive care medicine, pain management, pediatric anaesthesia, critical emergency medicine and advanced obstetric anaesthesia. This training takes 2 years and is managed by Scandinavian Society of Anaesthesiology and Intensive Care Medicine, SSAI. Furthermore, there are some European diploma degrees in different areas in anaesthesiology.

## **3.2 Description of the Core Training Course**

A series of general courses are included in the introductory training. The courses are offered by the Regions and a description can be found on the website for the regional secretariat for continuing medical education, Videreuddannelsessekretariatet.

In each of the three educational regions it is recommended that resident physicians follow the courses in anaesthesiology, which are scheduled by the speciality-specific training committees.

### **3.2.1 Rationale**

The purpose of the introductory training is to introduce the trainee to the work area of the anaesthesiological speciality to enable the trainee to decide, at the end of the training, whether the specialist training in anaesthesiology is the correct choice.

### **3.2.2 Objective**

The purpose of the training is that the trainee develops an approach and ability to acquire the theoretical, the scientific and the skill-based basis for the execution of anaesthesiology in relation to handling the tasks and situations which are expected of the physician.

The theoretical and the scientific basis for anaesthesiology include in particular pathophysiology, pharmacology, anatomy, biochemistry, physics, basic scientific and clinical scientific anaesthesiology as well as clinical medicine in relation to especially the cardiovascular, respiratory, renal, hepatic endocrine, haematological and neurological function.

In many cases, the tasks and situations to be handled are unpredictable and do not always have a precise or "correct" solution. Therefore, the professional handling is often related to the decision of the optimal solution for the situation in question. These decisions sometimes have to be made despite uncertainty and based on limited information. The purpose of the training is therefore to achieve an appropriate breadth and depth of the clinical experience, which can form the basis of a professional clinical decision and handling of anaesthesiological work and situations.

To deduce learning from experience it is necessary that the physician is able to perform a systematic assessment of the quality of the occurrence and is able to reflect on this in relation to a theoretical and the scientific frame of reference. The purpose of the learning strategies and assessments of the training is to develop the trainee's ability and approach to perform an assessment of the quality of practice in order to further develop it.

Following completion of the introductory training the physician should in a competent manner be able to manage uncomplicated patients and basic issues, which are typical of a function-bearing unit, and be part of a team in the management of more complicated patients.

### 3.2.3 Training structure

The specialist training in anaesthesiology consists of a 1 year introductory training and a core training of 4 years. The core training consists of several training courses located in several different hospitals. Part of the training is conducted in highly specialised units.

The training takes place while employed as junior doctors in positions that are announced on the Danish Medical Association website [www.laegejob.dk](http://www.laegejob.dk). There are a total of 92 residency positions (2012), and 54 (2012) vacancy courses are announced each year for the core training in anaesthesiology. Passing the introductory training is the competence requirement for the core training.

### 3.2.4 Introductory training contents

The introductory training is focused on training of basic anaesthesiology with management of patients, ASA group 1 to 3 during the perioperative course. The tasks are often focused on one single patient at a time. In addition, the trainee obtains experience in the form of primary management of vital functions in emergency patients and patients during transport and, to a lesser extent, intensive care unit patients.

During the introductory training the trainee will regardless of training centre obtain experience in anaesthesia for orthopaedic surgery and abdominal procedures, e.g. in surgery, urology and/or gynaecology, as well as intensive care medicine and acute pain management. The trainee will have on-call function (evening and night) and will among other things be subjected to acute medical issues. The scope of allocation to each area is described in detail in the training programmes of the departments.

## 3.3 Introductory Training

### 3.3.1 Competences

The individual competences for evaluation are described so they indicate which of the 7 doctors' roles are part of the competence. The department can choose between the recommended learning strategies. The listed method(s) for workplace based assessment is mandatory.

## 3.4 Core Training

### 3.4.1 Competences

The individual competences to be evaluated are described according to the 7 doctors' roles. For each competency it is indicated which of the 7 roles is addressed. Each department can choose between the recommended learning strategies. The listed method(s) for competence assessment is mandatory.

### **Learning strategies and methods for Workplace based Assessment**

Competence cards and instructions can be found on [www.dasaim.dk](http://www.dasaim.dk) under "uddannelsesudvalg" (educational committee).

#### *Assessment*

Assessment of the trainee serves two purposes: Facilitation of learning and documentation of competence. Workplace based assessment is conducted continuously during the training and therefore provides information about the trainee's development and simultaneously provides an important foundation for planning and modification of the course of training.

#### *General assessment and Mini Clinical Examination (Mini Cex)*

During the introduction year regular formative general assessment and a formative Mini Cex are conducted of the trainee's handling and behaviour, i.e. how the trainee performs in practice. This assessment is related to the described competence objectives. These are considered sufficient when the assessment of the competences is at or above the expected level. If the assessment indicates that this is unachievable, early measures have to be implemented, possibly in cooperation with the regional secretariat for continuing medical education, Det Regionale Videreuddannelsessekretariat.

The general assessment also includes a continuous monitoring of quality and quantity of work, such as *Cusum Scoring of procedures and registration of experience*.

#### *Cusum Scoring*

Cusum Scoring is a quantitative registration of (success rate for) the execution of 4 procedures: Spinal anaesthesia, epidural anaesthesia, CVC and artery needle. Cusum Scoring is not mandatory for the core training. However, it can be used with advantage during periods where there might be issues with the performance of one more or more of the four procedures according to you or your supervisor.

#### *Registration of experience*

The trainee continuously conducts registration of selected anaesthesiological performances and patient categories as agreed with the consultant responsible for education or the clinical supervisor of a given department or ward. Items for experience registration are based on the key performances and patients treated in the department. At the training interview, a hardcopy of the experience registration is reviewed or it is reviewed on a PDA/computer to adjust the clinical activities to meet the experience registration objectives of the department. On the general assessment form the consultant responsible for education or the clinical supervisor certifies that the department's/ward's requirements for the experience registration are met.

#### *Specific assessments*

The specific assessments are conducted in relation to the actual tasks and situations. *The specific assessments are used to provide information on whether the trainee is able to perform a task properly, and finally reflection and elaboration of practice.*

Specific assessments of *quality of work* that has been conducted are possible based on review of record material or other types of quality documentation in practice, such as references or feedback from others, record audits, etc. This documentation can be collected by the trainee in the portfolio and form the basis of the workbased assessment.

Specific assessments of the trainee's ability to *reflect and elaborate* in practice are aimed specifically at unpredictable situations or events with no precise solution. Focus is on systematic analysis of practice and learning from practice in relation to theory and scientific literature. This assessment can be based on oral or written reports based on one or more care pathways or situations.

Various forms of specific and general assessments are included in the portfolio. The documentation is based on the different workplace based assessments and sources are collected in the portfolio with other documentation that the trainee would like to present.

In case of issues with approval of a training element during the core training, the guidance for competence assessment of further medical training from the Danish Health and Medicines Authority applies.

### 3.4.2 List of mandatory competences for the speciality

The list contains the minimum requirements for the resident physician with clarification of the competence, the recommended learning strategies and the mandatory method(s) for workplace based assessment. Workplace based assessment tools can be found in the portfolio on [www.DASAIM.dk](http://www.DASAIM.dk).

## EXPERT ANAESTHESIOLOGIST

<b>ANAESTHESIOLOGY</b>				
	<b>Competences</b>	<b>Clarification of objectives</b>	<b>Learning strategies</b>	<b>Workplace based assessment method(s)</b>
1	<i>Demonstrates a basic theoretical, clinical and situational knowledge and understanding as well as sufficient clinical skills in the handling of anaesthesiological work and issues.</i>	<ul style="list-style-type: none"> <li>- prepares a rational for and manages anaesthesia and perioperative courses for surgical/gynaecological and orthopaedic surgical patients, ASA 1-3</li> <li>- conducts risk assessment of the individual patient</li> <li>- choice of monitoring, anaesthetic method(s)</li> <li>- prevents possible complications and events as they emerge</li> </ul>	Clinical training, training programmes and individual training plan Self-study	Formative general assessment after 6 months, summative general assessment after 11 months. Formative MiniCex after 6 months and after 9 months, summative MiniCex after 11 months Experience registration
2	<i>Basic airway management: Is able to manage handling of the normal airway</i>	<ul style="list-style-type: none"> <li>- is able to manage mask ventilation, apply laryngeal mask and endotracheal intubation on uncomplicated patients</li> <li>- is able to account for anatomical conditions of importance for airway management</li> <li>- is able to perform preoperative airway assessment, including assessment of risk of difficult airway</li> <li>- is able to account for the choice of airway management</li> <li>- is able to account for benefits and risks associated with Rapid Sequence Induction</li> <li>- is able to account for the choice of relaxants in connection with intubation</li> <li>- is able to prevent and manage information regarding and reporting of any dental trauma</li> <li>- is familiar with difficult airway algorithm and is able to initiate relevant treatment during cannot intubate cannot ventilate situation</li> </ul>	Clinical training Self-study	Structured observation Workplace based assessment 1 Experience registration

	<b>Competences</b>	<b>Clarification of objectives</b>	<b>Learning strategies</b>	<b>Workplace based assessment method(s)</b>
3	<i>Is able to test anaesthesia device and utilise relevant monitoring.</i>	<ul style="list-style-type: none"> <li>- is able to prepare and test anaesthesia device</li> <li>- is able to perform troubleshooting and account for management algorithm during device and oxygen supply failure</li> <li>- is able to account for circle system design and function</li> <li>- is able to account for storage of gases</li> </ul>	Clinical training Self-study	Structured observation Workplace based assessment 2
4	<i>Is able to manage anaesthesia and perioperative course for elective patient &gt; 15 years, ASA class 1-3, minor and medium surgery.</i>	<ul style="list-style-type: none"> <li>- is able to prepare preoperative holding area and/or operating room</li> <li>- is able to account for a plan for anaesthesia, choice of anaesthetics and their pharmacology based on integrated interpretation of clinical, paraclinical and pathophysiological significance of any comorbidities in relation to anaesthesia and surgery</li> <li>- takes relevant precautions to optimise patient conditions</li> <li>- reacts relevantly and adequately on changes in patient conditions</li> <li>- demonstrates understanding of the role of anaesthesiology in development and implementation of the accelerating patient course</li> <li>- documents anaesthesia courses and events on anaesthesia record with care and, if relevant, in the record</li> <li>- is able to account for loss of and compensation for fluid, electrolyte, glucose, blood</li> <li>- DVT prophylaxis, positioning, heat loss prevention</li> <li>- is able to produce relevant documentation for the perioperative course in relevant anaesthesia record, EPM, DAD etc.</li> </ul>	Clinical training Self-study	Structured observation Workplace based assessment 3 Experience registration
5	<i>Informing patient about the perioperative course and any risks as well as obtaining informed consent</i>	<ul style="list-style-type: none"> <li>- is able to perform patient identification and obtain informed consent from competent patient</li> </ul>	Clinical training Self-study	Structured observation Workplace based assessment 3 Workplace based assessment 13
6	<i>Carries out efficient patient transfer to the recovery phase</i>	<ul style="list-style-type: none"> <li>- provides structured information about patient, anaesthesia and operative course as well as ensures that the information is understood, and prescribes any postoperative examinations prior to recovery discharge</li> <li>- is able to account for applicable criteria for discharge from recovery</li> <li>- prepares a plan for the postoperative course, if it deviates from applicable guidelines for uncomplicated patients, ASA 1-3</li> </ul>	Clinical training Self-study	Structured observation Workplace based assessment 3

	<b>Competences</b>	<b>Clarification of objectives</b>	<b>Learning strategies</b>	<b>Workplace based assessment method(s)</b>
7	<i>Is able to manage anaesthesia and perioperative course for acute patient &gt; 15 years, ASA class 1-3, minor and medium surgery. ASA 3 under supervision</i>	<ul style="list-style-type: none"> <li>- accounts for rules for fasting period and factors that affect gastric emptying, as well as risk of and prevention of reflux and aspiration</li> <li>- manages relevant precautions in acute induction</li> <li>- performs correct preoxygenation and accounts for the purpose of this</li> <li>- performs safe acute induction</li> <li>- acknowledges own professional limitations and ensures that relevant personnel are present</li> <li>- incorporates information from monitoring data, clinical condition of the patient and the operative procedure in the global assessment of the patient's condition</li> </ul>	Clinical training Self-study	Structured observation Workplace based assessment 4
8	<i>Bases plans on an anaesthesiological assessment, respect for patient requests, dialogue with the surgeon as well as the organisational, technological and human resources</i>	<ul style="list-style-type: none"> <li>- assesses the severity and complexity of the task in relation to own resources, qualifications as well as the resources and qualifications of the local organisation</li> <li>- co-operates efficiently with the team</li> <li>- communicates adequately with the team and utilises the human and technological resources appropriately and requests relevant assistance when needed</li> </ul>	Clinical training Self-study	Structured observation Workplace based assessment 3 Workplace based assessment 4
9	<i>Is able to manage spinal anaesthesia</i>	<ul style="list-style-type: none"> <li>- accounts for a plan for anaesthesia, choice of equipment and analgesic, dosing, requirements for effect and plan for handling of side effects, undesirable effects and treatment of toxic effects</li> <li>- applies and tests effect and specifies correct distribution of analgesia</li> <li>- accounts for indication, contraindication, complications, prevention and treatment of these</li> </ul>	Clinical training Self-study	Structured observation Workplace based assessment 5 Experience registration

	<b>Competences</b>	<b>Clarification of objectives</b>	<b>Learning strategies</b>	<b>Workplace based assessment method(s)</b>
10	<i>Is able to manage epidural analgesia</i>	<ul style="list-style-type: none"> <li>- accounts for a plan for analgesia, choice of equipment and analgesic, dosing, requirements for effect and plan for handling of side effects or undesirable effects and treatment of toxic effects</li> <li>- test of effect and specifies correct distribution of analgesia</li> <li>- accounts for perioperative and postoperative maintenance of analgesia</li> <li>- accounts for indication, contraindication, complications and prevention and treatment of these</li> </ul>	Clinical training Self-study	Structured observation Workplace based assessment 6 Experience registration
11	<i>Is able to insert a central venous catheter</i>	<ul style="list-style-type: none"> <li>- accounts for indication and contraindication</li> <li>- accounts for anatomical and functional pros and cons for 2 frequently used CVC approaches</li> <li>- is able to use correct sterile technique during CVC insertion</li> <li>- is able to use UL during visualisation of vein and CVC insertion</li> <li>- is able to perform test of catheter function and placement</li> <li>- accounts any complications and prevention and treatment of these</li> <li>- accounts for guidelines for observation, use and discontinuation of CVC</li> </ul>	Clinical training Self-study	Structured observation Workplace based assessment 7 Experience registration
12	<i>Is able to account for the choice of perioperative management of patients with complicated conditions or diseases</i>	<ul style="list-style-type: none"> <li>- accounts for medical and pharmacological reason for preoperative preparation and medication</li> <li>- accounts for choice and dosage of anaesthetics and technique, choice of fluid/electrolyte administration</li> <li>accounts for postoperative observation/pain management</li> </ul>	Clinical training Self-study	Written assignment Workplace based assessment 8
13	<i>Has achieved appropriate breadth, volume and quality in management of procedures</i>	<ul style="list-style-type: none"> <li>- utilises Cusum Score and/or experience registration correctly for CVC insertion, artery needle, spinal needle insertion, epidural catheter, block induction and intubation</li> </ul>	Clinical training	Cusum Score Experience registration
14	<i>Has achieved appropriate breadth and volume of clinical experience regarding a sufficient segment and number of patients and anaesthesiological issues</i>	<ul style="list-style-type: none"> <li>- utilises experience registration correctly</li> </ul>	Clinical training	Cusum Score Experience registration

<b>INTENSIVE CARE THERAPY</b>				
	<b>Competences</b>	<b>Clarification of objectives</b>	<b>Learning strategies, recommendation</b>	<b>Workplace based assessment method(s),</b>
15	<i>Is able to prepare fluid/nutrition plan for intensive care patients</i>	<ul style="list-style-type: none"> <li>- accounts for clinical and paraclinical indicators, which are used to assess patient hydration status, calculate fluid and electrolyte loss and compensation needs</li> <li>- calculates nutrition needs and administration of glucose, protein and fat</li> <li>- accounts for indication regarding use of blood, plasma and other replacement products</li> </ul>	Clinical training Self-study	Structured observation Workplace based assessment 9
16	<i>Is able to institute respirator treatment for uncomplicated intensive care patients</i>	<ul style="list-style-type: none"> <li>- accounts for principles regarding respirator treatment/non-invasive ventilation, configuring of respirator/non-invasive ventilation, alarm limits, etc.</li> <li>- accounts for indications, contraindications and plan for respirator treatment/non-invasive ventilation, monitoring as well as indications for changes in relation to clinical and paraclinical data</li> <li>- accounts for complications for respirator treatment/non-invasive ventilation, and prevention and treatment of these</li> <li>- accounts for ethical dilemmas regarding basis for withholding respirator treatment/non-invasive ventilation</li> </ul>	Clinical training Self-study	Structured observation Workplace based assessment 10
17	<i>Is able to manage ward rounds for uncomplicated intensive care patients</i>	<ul style="list-style-type: none"> <li>- accounts for organ-specific status based on clinical and paraclinical data</li> <li>- formulates relevant issue and plan for examination and treatment</li> <li>- behave ethically correct in relation to patient integrity</li> <li>- accounts for considerations regarding communication issues in connection with patient and relatives as well as ethical dilemmas in relation to legislation on information</li> </ul>	Clinical training Self-study	Structured observation Workplace based assessment 11

<b>PAIN MANAGEMENT</b>				
	<b>Competences</b>	<b>Clarification of objectives</b>	<b>Learning strategies, recommendation</b>	<b>Workplace based assessment method(s)</b>
18	<i>Is able to manage uncomplicated patients with acute pain (e.g. adjustment of postoperative pain regimen)</i>	<ul style="list-style-type: none"> <li>- accounts for pain classification</li> <li>- accounts for choice of analgesics, their pharmacology and aequivalence of these in relation to administration methods and combination therapy</li> <li>- accounts for local analgesic techniques</li> </ul>	Clinical training Self-study	Structured observation Workplace based assessment 14

<b>ACUTE CONDITIONS</b>				
	<b>Competences</b>	<b>Clarification of objectives</b>	<b>Learning strategies, recommendation</b>	<b>Workplace based assessment method(s)</b>
19	<i>Is able to manage resuscitation of adults and initiate resuscitation of children</i>	<ul style="list-style-type: none"> <li>- accounts for algorithms for resuscitation and management sequence when working alone and in a team</li> <li>- accounts for indication for defibrillation and dosing for adults</li> <li>- is able to initiate resuscitation of children</li> <li>- accounts for indication for and use of standard medicine</li> <li>- accounts for hospital cardiac arrest organisation and role and tasks of the department of anaesthesiology</li> <li>- accounts for own role as team member/team leader during resuscitation</li> <li>- accounts for conditions related to cardiac arrest brain damage as well as ethical dilemmas and basis for decision regarding initiation and discontinuation of resuscitation</li> <li>- accounts for indication for hyperthermia and respirator treatment of patients suffering from cardiac arrest</li> </ul>	Clinical training Self-study	Structured observation Workplace based assessment 12
20	<i>Is able to start initial treatment of patients with acute life-threatening conditions</i>	<ul style="list-style-type: none"> <li>- is able to assess the vital parameters of the patient and how affected they are, is able to utilise algorithms for examination and treatment</li> <li>- is able to initiate and maintain treatment until qualified assistance arrives</li> </ul>	Clinical training Self-study	Structured observation Workplace based assessment 12
21	<i>Is able to account for precautions for and assessment of patients during transport</i>	<ul style="list-style-type: none"> <li>- is able under supervision to assess patient suitability for internal and external transport as well as participate in the stabilisation of patients prior to transport</li> <li>- accounts for procedures and monitoring techniques in connection with transport</li> </ul>	Clinical training Self-study	Structured advisor interviews Experience Registration
22	<i>Is able to account for organisation of and precautions in relation to emergency management</i>	<ul style="list-style-type: none"> <li>- is familiar with precautions in case of fire in the operating room or elsewhere at the hospital</li> <li>- is familiar hospital and local area disaster and emergency response plan</li> <li>- is familiar with own and the department's role related to tasks and responsibilities in case of alarm calls</li> </ul>	Clinical training Self-study	Structured advisor interview

<b>HEALTH PROMOTER</b>				
	<b>Competences</b>	<b>Clarification of objectives</b>	<b>Learning strategies, recommendation</b>	<b>Workplace based assessment method(s)</b>
23	<i>Is able to account for lifestyle factors, which affect morbidity and mortality in relation to anaesthesia and surgery</i>	- is able to account for appropriate preoperative information, including any additional examinations related to this	Self-study	Structured advisor interview

<b>COMMUNICATOR</b>				
	<b>Competences</b>	<b>Clarification of objectives</b>	<b>Learning strategies, recommendation</b>	<b>Workplace based assessment method(s)</b>
24	<i>Is able to manage effective preoperative patient consultation</i>	- records relevant anamnesis, objective examination - demonstrates receptiveness, responds adequately to patient concerns and problems - encourages dialogue with the patient about participation in the decision about the anaesthesiological course, to the extent the patient wishes, and if medically possible and safe - provides the patient with information that is understandable, ensures understanding of the information and obtains informed consent	Clinical training Self-study	Structured observation Workplace based assessment 13 Formative general assessment after 6 months, summative general assessment after 11 months.
25	<i>Interprofessional communication Is able to handle efficient written and oral communication with collaborators</i>	- manages correct, adequate and clear record keeping and data registration - manages structured, sufficient communication during transfer of patient responsibility to others - ensures that the recipient understands treatment plans, indicators for intervention and/or call for assistance - adapts communication and conduct to the situation and delivers constructive and clear communication	Clinical training Self-study	Structured observation Workplace based assessment 3 Workplace based assessment 13 Formative general assessment after 6 months, summative general assessment after 11 months. Formative MiniCex after 6 months and after 9 months, summative MiniCex after 11 months.

<b>COLLABORATOR</b>				
	<b>Competences</b>	<b>Clarification of objectives</b>	<b>Learning strategies, recommendation</b>	<b>Workplace based assessment method(s)</b>
26	<i>Is able to perform effectively as member of the team and accept responsibility for tasks as team leader or team member</i>	<ul style="list-style-type: none"> <li>- demonstrates understanding of and respects other team member's fields and situational roles and tasks</li> <li>- demonstrates receptiveness and openness, respects other people's opinions and at the same time contributes with own expertise</li> <li>- assumes team leader position, if appropriate, and ensures that team members are familiar with their functions</li> </ul>	Clinical work Self-study	Structured observation Workplace based assessment 11 Workplace based assessment 12 Formative general assessment after 6 months, summative general assessment after 11 months. Formative MiniCex after 6 months and after 9 months, summative MiniCex after 11 months.

<b>ORGANISER/MANAGER/ADMINISTRATOR</b>				
	<b>Competences</b>	<b>Clarification of objectives</b>	<b>Learning strategies, recommendation</b>	<b>Workplace based assessment method(s)</b>
27	<i>Is able to organise own work and manage an efficient workflow in the operating room during the daytime</i>	<ul style="list-style-type: none"> <li>- Is able to prioritise and plan work tasks with respect for efficiency and safety in the treatment of patients</li> <li>- demonstrates predictiveness and respect for the tasks</li> <li>- works orderly and systematically with the task</li> <li>- demonstrates sense of perspective on the task</li> </ul>	Clinical training Self-study	Structured observation Formative general assessment after 6 months, summative general assessment after 11 months. Formative MiniCex after 6 months and after 9 months, summative MiniCex after 11 months.
28	<i>Is able to prioritise work tasks during the shift</i>	<ul style="list-style-type: none"> <li>- is able to prioritise in relation to patient conditions, staff resources and considerations for an efficient workflow</li> </ul>	Clinical training Self-study	Structured observation Formative general assessment after 6 months, summative general assessment after 11 months. Formative MiniCex after 6 months and 9 months, summative MiniCex after 11 months.

<b>ACADEMIC</b>				
	<b>Competences</b>	<b>Clarification of objectives</b>	<b>Learning strategies, recommendation</b>	<b>Workplace based assessment method(s)</b>
29	<i>Is able to arrange and complete a continuous plan for own learning</i>	<ul style="list-style-type: none"> <li>- demonstrates will and ability to continuously search for new knowledge</li> <li>- is able to clarify own objectives and utilise different learning methods in achieving these, and monitor own learning</li> </ul>	Training plan Guide Self-study	Training plan/learning report Formative general assessment after 6 months, summative general assessment after 11 months.
30	<i>Is able to conduct critical analysis and reflection on perioperative management of at specific patient course.</i>	<ul style="list-style-type: none"> <li>- description patient courses, including theoretical considerations in relation to the practical circumstances and conditions</li> <li>- reflection on the course in relation to theory</li> </ul>	Clinical training Self-study	Written report Workplace based assessment 16
31	<i>Is able to define a problem and analyse it in relation to literature.</i>	<ul style="list-style-type: none"> <li>- rephrases a clinical issue to a question, which can be answered through a search in literature</li> <li>- is able to perform focused literature search, assessment and selection of relevant literature</li> <li>- prepares a clear and sufficient written report</li> </ul>	Guide Self-study	Written report Workplace based assessment 16 Formative general assessment after 6 months, summative general assessment after 11 months.

<b>PROFESSIONAL</b>				
	<b>Competences</b>	<b>Clarification of objectives</b>	<b>Learning strategies, recommendation</b>	<b>Workplace based assessment method(s)</b>
32	<i>Demonstrates responsibility towards the work tasks</i> <i>Demonstrates commitment, initiative, interest and responsibility in the execution of practise in relation to patients, the organisation</i>	<ul style="list-style-type: none"> <li>- demonstrates punctuality in attendance and provides information on his/her whereabouts and how he/she can be summoned</li> <li>- possesses the ability to assess the quality of own work, acknowledge own errors and is able to cope with this</li> <li>- acknowledges own limitations calls for assistance, when necessary.</li> <li>- contributes to mutual learning for adverse events and possible errors</li> </ul>	Clinical training Guidance/dialogue with advisor	Formative general assessment after 6 months, summative general assessment after 11 months. Formative MiniCex after 6 months and after 9 months, summative MiniCex after 11 months.

## 4 Documentation Part

This part contains the documentation necessary for approval of the doctor's residency position.

The documentation consists of:

1. Approval of mandatory competences and courses
2. Certification of timely completion of training element during further medical training and the research training module.

Part 1 is prepared by the Danish Health and Medicines Authority following nomination from the speciality association.

Part 2 is prepared by the Danish Health and Medicines Authority.

### **4.1 Logbook of Introductory Training**

Competence no.	Name of the doctor in training: Personal identification number Competence (text)	Date of approval	Signature and stamp approval/legible name of signatory
1	<i>Demonstrates a basic theoretical, clinical and situational knowledge and understanding as well as sufficient clinical skills in the handling of anaesthesiological work and issues. GA and Mini Cex</i>		
2	<i>Basic airway management: Is able to manage handling of the normal airway Map 1</i>		
3	<i>Is able to test anaesthesia device Map 2</i>		
4	<i>Is able to manage anaesthesia and perioperative course for elective patient &gt; 15 years, ASA class 1-3, minor and medium surgery. Utilises relevant precautions, is vigilant and predictive. Incorporates information from monitoring data, clinical signs of the patient and the operative procedure in the global assessment of the patient's condition. Map 3</i>		
5	<i>Informing patient about the perioperative course and any risks as well as obtaining informed consent Map 3, map 13</i>		
6	<i>Carries out efficient patient transfer to the recovery phase Map 3</i>		
7	<i>Is able to manage anaesthesia and perioperative course for acute patient &gt; 15 years, ASA class 1-3, minor and medium surgery. Utilises relevant precautions, is vigilant and predictive. Incorporates information from monitoring data, clinical signs of the patient and the operative procedure in the global assessment of the patient's condition. Map 7</i>		

<b>Competence no.</b>	<b>Name of the doctor in training: Personal identification number Competence (text)</b>	<b>Date of approval</b>	<b>Signature and stamp approval/legible name of signatory</b>
8	<i>Bases plans on a balanced anaesthesiological assessment, respect for patient requests, dialogue with the surgeon as well as the organisational, technological and human resources Map 4</i>		
9	<i>Is able to manage spinal anaesthesia Map 5</i>		
10	<i>Is able to manage epidural analgesia Map 6</i>		
11	<i>Is able to insert a central venous catheter Map 7</i>		
12	<i>Is able to account for the choice of perioperative management of patients with complicated conditions or diseases Map 8</i>		
13	<i>Has achieved appropriate breadth, volume and quality in management of procedures Cusum Score, experience registration</i>		
14	<i>Has achieved appropriate breadth and volume of clinical experience regarding a sufficient segment and number of patients and anaesthesiological issues according to: List of experience (review this) Cusum Score, experience registration</i>		
15	<i>Is able to prepare fluid/nutrition plan for intensive care patients Map 9</i>		

<b>Competence no.</b>	<b>Name of the doctor in training: Personal identification number Competence (text)</b>	<b>Date of approval</b>	<b>Signature and stamp approval/legible name of signatory</b>
16	<i>Is able to institute respirator treatment for uncomplicated intensive care patients Map 10</i>		
17	<i>Is able to manage ward rounds for uncomplicated intensive care patients Map 11 GA, Mini Cex</i>		
18	<i>Is able to manage uncomplicated patients with acute pain (e.g. adjustment of postoperative pain regimen) Map 14</i>		
19	<i>Is able to manage resuscitation of adults and initiate resuscitation of children Map 12</i>		
20	<i>Is able to start initial treatment of patients with acute life-threatening conditions Map 12, GA, Mini Cex</i>		
21	<i>Is able to account for precautions for and assessment of patients during transport Map 14</i>		
22	<i>Is able to account for organisation of and precautions in relation to emergency management Map 14</i>		
23	<i>Is able to account for lifestyle factors, which affect morbidity and mortality in relation to anaesthesia and surgery Is able to account for appropriate preoperative information, examination related to these. Map 13</i>		
24	<i>Is able to manage effective preoperative patient consultation Map 13, GA, Mini Cex</i>		
25	<i>Inter professional communication Is able to handle efficient written and oral communication with collaborators Map 3, map 13, GA, Mini Cex</i>		

<b>Competence no.</b>	<b>Name of the doctor in training: Personal identification number Competence (text)</b>	<b>Date of approval</b>	<b>Signature and stamp approval/legible name of signatory</b>
26	<i>Is able to perform effectively as member of the team and accept responsibility for tasks as team leader or team member Map 11, map 12 GA, Mini Cex</i>		
27	<i>Is able to organise own work and manage an efficient workflow in the operating room during the daytime GA, Mini Cex</i>		
28	<i>Is able to prioritise work tasks during the shift GA, Mini Cex</i>		
29	<i>Is able to arrange and complete a continuous plan for own learning GA, Mini Cex</i>		
30	<i>Is able to conduct critical analysis and reflection on perioperative management of at specific patient course. Map 15</i>		
31	<i>Is able to define a problem and analyse it in relation to literature. Map 15</i>		
32	<i>Demonstrates responsibility towards the work tasks Demonstrates commitment, initiative, interest and responsibility in the execution of practise in relation to patients, the organisation GA, Mini Cex</i>		

General assessment	Name of the doctor in training: Personal identification number Training course	Date of approval	Signature and stamp approval/legible name of signatory

<b>Certification from the head physician responsible for education:</b>	
This is to certify completion and that the scoring of the last general assessment is at "expected level" or "above expected level"	<b>Date, signature and stamp/legible name</b>

Mini Clinical Examination Mini Cex	Name of the doctor in training: Personal identification number Training course	Date of approval	Signature and stamp approval/legible name of signatory

<b>Certification from the head physician responsible for education:</b>	
This is to certify that the scoring of the last Mini Clinical Examination, Mini Cex is at "expected level" or "above expected level".	<b>Date, signature and stamp/legible name</b>

#### 4.1.1 Core Training Courses

##### Basic courses

<b>Course title</b>	<b>Name of the doctor in training: Personal identification number Course period</b>	<b>Date of approval</b>	<b>Signature and stamp approval/legible name of signatory</b>

#### 4.1.2 Certification of approved recruitment

Form: Certification of timely completion of training element during further medical training can be found on [the Danish Health and Medicines Authority website](#). The form is signed by the head physician responsible for education.

## 5 Useful links

### 5.1 General links

[Danish Health and Medicines Authority, specialist and further training](http://www.sst.dk/publ/Publ2013/08aug/KompetenceVurdMetoder.pdf)  
<http://www.sst.dk/publ/Publ2013/08aug/KompetenceVurdMetoder.pdf>  
<http://www.sst.dk/publ/Publ2013/05maj/De7laegeroller2udg.pdf>

[Organization of Danish Medical Societies \(the former Danish Medical Society\)](#)

The regional secretariats for continuing medical education:

[Further Training Region North \(Videreuddannelsesregion Nord\)](#)

[Further Training Region South \(Videreuddannelsesregion Syd\)](#)

[Further Training Region East \(Videreuddannelsesregion Øst\)](#)

### 5.2 Speciality-specific links

[www.dasaim.dk](http://www.dasaim.dk)