MEDICAL UNIVERSITY OF VIENNA

Training Programme (essential elements)
Clinical Practical Year (CPY)
at Medical University of Vienna, Austria

CPY-Tertial C

Anaesthesiology and Intensive Care Medicine

Valid from academic year 2015/16

Responsible for the content

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In collaboration with

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This training programme applies to the subject of "Anaesthesiology and Intensive Care Medicine" within CPY tertial C "Electives". If "Anaesthesiology and Intensive Medicine" are being taken within the compulsory CPY tertial B "Surgery and Perioperative Disciplines", in addition to the learning objectives in CPY tertial B, the learning objectives listed in this training programme under Point 3 can be added as optional learning objectives in the logbook for the compulsory CPY tertial B.

The training programmes for the elective subjects in CPY tertial C are each designed for a duration of 8 weeks. If the subject in CPY tertial C is being completed over a period of 16 weeks, the specified content shall be treated in greater depth.

3. Learning objectives (competences)

In their previous years of study the students have acquired both theoretical knowledge as well as some practical skills, which they have practised during their internships in role play situations and to some extent also on patients. The aim of the CPY training is to deepen their knowledge of these skills with direct involvement of patients.

The following skills must be acquired or deepened in the subject of "Anaesthesiology and Intensive Care Medicine" during the CPY.

3.1 Competences to be achieved (mandatory)

A) History taking
   1. History taking, particularly taking account of previous anaesthesia procedures
   2. Taking an anaesthesia-related family history
   3. Identification of possible risk factors for surgery / anaesthesia and further clarification where necessary
   4. Medication history, taking into account side effects and interactions with the planned anaesthesia procedure

B) Performance of examination techniques
   5. General clinical examination including general neurological assessment
   6. Assessment of an ECG and emergency ECG
   7. Assessment of vital functions (body temperature, respiration, blood pressure)
   8. Assessment and appraisal of the respiratory tract in connection with a planned intubation
   9. Participation in the selection of a suitable anaesthesia procedure
   10. Assessment of perioperative volume and electrolyte management
   11. Participation in the selection of an alternative airway management system
   12. Identification of extubation criteria
   13. Interpretation of findings: arterial blood gas analysis, osmolarity, colloid osmotic pressure, electrolytes in the perioperative/ICU setting
   14. Assessment and discussion of radiological findings in a clinical context
   15. Identification of drug side effects and their treatment
   16. Crossmatching (compatibility testing)

C) Performance of routine skills and procedures
   17. Positioning a permanent peripheral venous cannula
   18. Positioning a gastric tube
   19. Positioning a bladder catheter in a man/woman
   20. Removal of a thoracic drain
   21. Participation in the positioning of a central venous catheter
   22. Proper handling of central venous catheters
   23. Preparation and administration of infusions (crystalloid and colloid)
   24. Performance of suitable hygiene measures at the workplace

25. Positioning an arterial cannula
26. Participation in the performance of advanced invasive and semi-invasive measures for the monitoring of vital parameters and their interpretation
27. Adjusting a respirator
28. Monitoring of the correct positioning of patients in the operating room and ICU
29. Performance of mask ventilation
30. Performance of a laryngoscopy
31. Basic life support: simulation
32. Operating a defibrillator: simulation
33. Performance of patient safety measures (sign-in/time-out/sign-out)
34. Registering a patient for an instrumental examination (including reasons)
35. Requesting a consultation with a specialist (including reasons)

D) Therapeutic measures

36. Prescribing measures in treatment of pain, palliative and end-of-life care
37. Identifying and determining of the indication for oxygen therapy (timing)
38. Prescribing therapy for post-operative nausea
39. Participation in treatment with vasopressors and catecholamines
40. Participation in the treatment of post-operative bleeding and determining the indication for the administration of blood products, as well as their correct use
41. Participation in the stabilisation of severely/critically ill patients
42. Accompanying the transport of casualties / intensive care patients
43. Participation in treatment with antibiotics

E) Communication with patients/team

44. Providing information to patients and relatives in an ethically correct and professional manner in compliance with legal requirements and ensuring that the information has been understood
45. Communicating with "difficult" patients
46. Breaking bad news to patients and family (in compliance with legal requirements): simulation
47. Explaining to patients about an intervention or planned anaesthesia procedure
48. Informing colleagues and medical personnel, ensuring that the information has been understood
49. Formulating instructions for nursing staff
50. Working in a multidisciplinary team

F) Documentation

51. Documenting the anaesthesia procedure in the operating room and in the ICU either in a patient data management system or with the aid of an anaesthesia log/intensive care data sheet
52. Writing a referral for an instrumental investigation/request for a specialist consultation
53. Information request in hospital information system

3.2 Optional competences

In addition to the competences that are mandatory to achieve, further competences from the following list may also be acquired.

1. Advanced haemodynamic monitoring:
   1.1. Functional principles: pulse contour analysis, thermodilution and their limitations
   1.2. Handling a PiCCo, pulmonary arterial catheter
   1.3. ScO2, SvO2
   1.4. Echocardiography
2. Basics of artificial respiration
   2.1. Non-invasive/invasive
   2.2. Oxygenation parameters, oxygen transport and relevant pathophysiology
   2.3. Artificial respiration in common conditions: ARDS, COPD, head injury
3. Basics of nutrition
   3.1. Energy requirements of the critically ill
   3.2. Enteral vs. parenteral
4. Basics of renal replacement therapy
   4.1. Haemodialysis vs. haemofiltration
   4.2. Intermittent vs. continuous
   4.3. Anti-coagulation
5. Participation in the preparation of a therapy concept for chronic, non-malignant pain
6. Participation in the therapy of post-operative pain in in-patients
7. Participation in the programming of PCA pumps

4. Information on verification of performance, on-going assessments

4.1 The following aspects can be assessed in the Mini-CEX:

1. Taking a pre-operative medical history
2. Explaining to patients about interventions (central venous catheter, thoracic drain) and anaesthesia procedures
3. Registering a patient for an examination
4. Identification of possible risk factors for the planned anaesthesia management
5. Assessment of the perioperative fluid/blood balance and electrolyte loss as well as prescribing their replacement
6. Selection of anaesthesia procedure

This list can be expanded accordingly.

4.2 The following skills can be assessed in the DOPS

1. Mask ventilation
2. Intubation
3. Positioning a permanent cannula
4. Positioning a gastric tube
5. Positioning a bladder catheter in a man/woman
6. Handling a central venous catheter
7. Taking blood from an artery

This list can be expanded accordingly.