

Course syllabus - Draft

Semester 11 – Elective course in clinical medicine, 7.5 credits

Elective course in clinical medicine, 7.5 credits

General information

Course code	2LA314
Course name	Transplantation surgery
Credits	7.5 credits
Form of education	Higher education, study regulation of 2007
Main field of study	Medicine
Level	AV – Second cycle
Grading scale	Fail (U) or Pass (G)
Department responsible	Department of Clinical Science, Intervention and Technology (CLINTEC)
Deciding body	Programme Committee for the Medical Programme

Specific entry requirements

A passing grade in semesters 1–10 is required.

A student who has failed workplace-based learning (VFU) or equivalent due to serious deficiencies in knowledge, skills, or professional conduct that have jeopardized patient safety or public trust in healthcare is eligible for a new VFU opportunity only once the individual action plan has been completed.

Aims

The overall aim of the course is to provide students with broader theoretical and practical knowledge of organ donation and organ transplantation and the medical management of organ transplant recipients. During the course, students train the professional role of a physician within healthcare teams. Based on previous courses in the medical programme, students shall broaden and deepen their clinical competence in clinical medicine with a focus on transplantation and related medical disciplines. Students are expected to achieve a higher level of independence in both theoretical and practical skills of importance for the physician profession.

Learning outcomes

The learning outcomes (3–5 related to knowledge and understanding and 3–5 related to skills and abilities) are aligned with the national learning objectives for the medical degree as stated in the Swedish Higher Education Ordinance (SFS 1993:100). Learning outcomes related to knowledge and understanding are categorized according to the SOLO taxonomy (S2–S5), and learning outcomes related to skills and abilities are categorized according to Miller's pyramid (M3–M4).

Knowledge and understanding

- explain the definition of death and the diagnosis of death using direct and indirect criteria, and relate this to the two possible organ donation pathways (S4)
- explain and compare different treatment options for patients with renal and/or liver failure as well as diabetes (S4)
- describe the immunological mechanisms of rejection and relate these to basic immunosuppressive therapy and associated adverse effects (S3)
- describe the fundamentals of transplantation surgical operative techniques (S3)
- hypothesize and evaluate new methods and concepts within organ donation and transplantation in an evidence-based manner (S4)

Skills and abilities

- manage common postoperative and post-transplant patients in an evidence-based manner (M3)
- apply basic surgical techniques such as suturing, ligation, and assisting during surgery (M3)
- collaborate with other medical professions in the management of patients after surgery and/or organ transplantation (M4)

Approach and professional conduct

- interact with patients, next of kin, fellow students, teachers, and healthcare staff in a respectful, empathetic, and professional manner
- prioritize patient safety and health based on scientific evidence and proven experience
- take responsibility for one's own learning and contribute to the learning of others

Course content

The course provides in-depth training in transplantation surgery and medicine in a multidisciplinary environment. Students are exposed to multidisciplinary patient care integrating surgery, internal medicine, infectious diseases, nephrology, and hepatology. The course integrates and deepens elements of the theoretical content of the medical programme through an extended period of workplace-based learning (VFU) in clinically active healthcare teams, enabling practical professional training that prepares students for future work as practicing physicians. The course includes clearly defined scientific and clinically grounded theory and opportunities for reflection and deepening of clinical knowledge. Knowledge, skills, and practical application of the physician role are based on evidence-based and person-centred care and are developed through supervised clinical training with repeated feedback. Skills training builds on previous courses and is partly conducted in the form of composite clinical activities (SKA) in accordance with the nationally agreed Entrustable Professional Activities (EPA) framework.

Teaching and learning activities

The primary teaching and learning activity is clinical service within healthcare teams under supervision with individual feedback. Students participate in a continuous period of workplace-based learning (VFU) of approximately four weeks. Students may be placed in

pairs or groups, sometimes together with exchange students, which may require the use of English. VFU placements may include ME Transplantation at Karolinska University Hospital and are assigned by the course management. Teaching also includes a course introduction and seminars. Team-based learning (TBL) may be used. The introductory week (approximately one week) includes surgical skills training at the Clinical Skills Centre (KTC) and wet-lab training. Techniques such as knot-tying and suturing techniques, and basic vascular surgical techniques are practiced. An individual assignment in the form of a critical incident analysis (CIA) during VFU may be included as part of training in contributing to a culture of patient safety. Teaching activities may be scheduled during evenings, weekends, or night-time. Teaching may be conducted in English if international exchange students participate.

Examination

Compulsory course components

Compulsory participation

- course introduction
- workplace-based learning (VFU)
- practical surgical training during the introductory week (a prerequisite for participation in VFU)

Compulsory formative assessments

- EPA and/or SKA (composite clinical activities) – weekly
- simulated medication prescribing

Examination components

- assessment during VFU** of EPAs/SKAs
- assessment of professional conduct***
- a summative final examination

** Examination during VFU consists of a summative assessment based on repeated formative assessment material from VFU. The material comprises multiple formative assessments supported by, among other things, assessment tools for level of independence in performing specified EPAs.

*** Learning outcomes related to professional conduct are assessed continuously based on assessment criteria, in all contexts where the student acts in the role of a student or in activities related to the university or healthcare services, including communication and digital media. In the event of insufficient achievement of learning outcomes, the examiner may fail the student in VFU. In such cases, an individual action plan shall be established.

For assessment of professional conduct during VFU, the student is entitled to two examination opportunities. Re-examination requires that the student retake the entire course, in accordance with the established action plan.

Active participation in compulsory course components constitutes a central part of the course examination. The examiner decides whether and how absence from compulsory components may be compensated. Until the student has participated in compulsory components or compensated for absence in accordance with the examiner's instructions, course results cannot be reported. Absence from a compulsory component may result in the student being unable to compensate for the activity until the course is offered again.

The examiner may immediately terminate a student's workplace-based learning (VFU) or equivalent if the student demonstrates such serious deficiencies in knowledge, skills, or professional conduct that patient safety or public trust in healthcare is jeopardized. In such cases, the student fails the relevant component and one VFU opportunity is considered used. An individual action plan shall then be established, specifying required activities and assessments before the student may be offered a new VFU opportunity within the course.

If special grounds exist, or if adaptations are required for students with disabilities, the examiner may decide to deviate from the course syllabus regulations regarding examination format, number of examination opportunities, opportunities for completion, or exemption from compulsory components. The course content, learning outcomes, and required level of knowledge, skills, and abilities may not be changed, removed, or reduced.

Additional provisions

Language of instruction: Swedish. Teaching may be conducted in English if international exchange students are admitted to the course. Literature in English may occur.

Course evaluation is conducted in accordance with Karolinska Institutet's guidelines.

Recommended literature and other learning resources

Atlas of Surgical Techniques. Internal materials from the Division of Transplantation Surgery, Karolinska Institutet.

Tufveson, Gunnar; Johnsson, Cecilia. Transplantation. Lund: Studentlitteratur, 2002.

Current scientific articles within the field and local clinical guidelines.