Course syllabus for

# Palpitations, stroke and sudden death. Cardiology by way of atrial fibrillation, 4.5 credits

Hjärtklappning, stroke och plötslig död. Kardiologi med utgångspunkt från förmaksflimmer, 4.5 hp
This course has been cancelled, for further information see Transitional provisions in the last version of the syllabus.

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| Course code | 2LK029 |
| Course name | Palpitations, stroke and sudden death. Cardiology by way of atrial fibrillation |
| Credits | 4.5 credits |
| Form of Education | Higher Education, study regulation 2007 |
| Main field of study | Medicine |
| Level | AV - Second cycle |
| Grading scale | Pass, Fail |
| Department | Department of Medicine, Huddinge |
| Participating institutions | • Department of Medical Epidemiology and Biostatistics |
| Decided by | Programnämnd 2 |
| Decision date | 2010-03-29 |
| Revised by | Programme committee for study programme in medicine |
| Last revision | 2024-06-18 |
| Course syllabus valid from | Spring 2010 |

## Specific entry requirements

All credits from semesters 1-3 and pass grade on the module "Medical Diagnostics" in the course "Disease and Illness 2" and module "Clinical Driving Licence" in the course "Integrated Preparatory Examination". Furthermore, the course Clinical Medicine should be completed

## Objectives

The general aim is that the student should on completion of the course have an advanced knowledge and understanding of heart-diseases.

The knowledge is tiered according to the SOLO taxonomy and the skills according to Miller's pyramid

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Knowledge and understanding:
- Be able to analyse triggering and maintenance factors and which arrhythmia mechanisms occur in various heart diseases (S3).
- Know the different symptoms, investigations, treatments, prognosis and complications of treatments and arrythmias so that different treatment strategies can be suggested (S3).
- Advanced knowledge about thromboembolism prophylaxis and underlying mechanisms of risk factors for embolic risk (S3).
- Epidemiological relationships and application of statistics in clinical issues (S2).

Skills
- Independently be able to carry out electrocardiography interpretation of arrythmias (M4).

Attitude
- Be able to relate the limitations of medical knowledge to treatment of the individual patient (M2)
- Be able to argue around investigation and the choice of treatment in clinical situations from an evidence-based perspective (M2).

# Content

The course constitutes a specialisation of the knowledge of cardiovascular diseases that is included in the core of the study programme in medicine, when atrial fibrillation occurs as a part phenomenon in many large disease groups and national diseases such as for example heart failure, hypertension, endocrine disorders including diabetes, valvular disease of the heart, coronary artery disease or stroke. The course integrates basic anatomy and physiology in complex clinical situations.

In the course, a clear connection to the use of scientific competence in daily clinical activities as a basis for decision making is sought, but also the interplay with the professional role and the approach in the individual case.

Integrating assignments in the course:
Abnormal heart activity
Dyspnea
Chest pain
High blood pressure

# Teaching methods

The course is based, to a very large extent, on cases and seminar discussions, as well as placement, with the aim of understanding complex relationships, therapeutic considerations and positions based on various clinical scenarios with concurrent training in a conscious professional approach. The course is also to a large extent based on the student's individual contributions in the form of different study assignments, an advanced assignment that is presented and discussed, debates and literature survey from the perspective evidence based medicine (EBM).

Integrated in the course are subparts including clinical physiology, pharmacology, statistics, neurology and thoracic surgery. Gender perspectives, patients' autonomy and participation in decision-making processes are included.

The course will give training in electrocardiography analysis, carrying out an adequate literature search, article review, training in the use of statistics in assessment of clinical contexts and arguments based on EBM.

In the course time, placements are included with rounds, electro conversion, various types of electrocardiography analysis, echocardiography, electrophysiologic study and ablation.

# Examination

Examination takes place mainly through assessment if the student has achieved the learning objectives through the student's active participation in the compulsory parts and presentation of individual and group assignments. In addition a short written final examination including electrocardiography interpretation.

The ability to conduct clinical reasoning, possess theoretical knowledge and an ability to use and integrate them will be examined through active participation in seminar discussion of cases.

Compulsory modules
Approved participation in cases and seminar discussions, completed individual study assignments including an advanced assignment that is presented and discussed. For clinical modules, attendance is compulsory.

Limitations of the number of examinations or practical training sessions
The number of examination and practical training sessions follows the local guidelines of Karolinska Institutet, implying that the number of examinations is limited to 6, while placement, as a rule, may be repeated only once.

The examiner may, with immediate effect, interrupt a student's clinical placement (or equivalent) if the student demonstrates such serious deficiencies in knowledge, skills or attitude that patient safety or patient confidence in healthcare is at risk. If a clinical placement is interrupted in this way the student is deemed to have failed that element and to have used up one clinical placement opportunity.

In such cases, an individual action plan should be set up stating which activities and tests are required before the student is qualified for a new clinical placement on the course.

Eligibility
A student failing due to shortcoming in knowledge skills or attitudes, thus jeopardising patient safety and/or trust in medical care, can be assigned to a new clinical placement only after having completed objectives set in the individual plan.

# Transitional provisions

If a course has been closed down or undergone major changes, at least two additional examinations (excluding regular examinations) in the previous contents are provided during a period of a year from the date of the change.

# Other directives

The course connects to and enhances core knowledge in the study programme in medicine.

Course evaluation takes place according to the guidelines that have been stated by the Board of Education at Karolinska Institutet.

The course may not be included in a degree at the same time as an advanced course completed inside or outside the country, the contents of which fully or essentially correspond to the current course contents. If you are uncertain \x{2013} contact the study guidance.

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The knowledge is tiered according to the SOLO taxonomy:
S1) simple (ex. know, identify),
S2) composite (ex. account for, describe),
S3) related (ex. analyse, relate), and
S4) extended (ex. theorise, analyse).

The skills are structured according to Miller's pyramid:
M1) know,
M2) know how one carries out
M3) be able to show, and
M4) be able to carry out professional.

# Literature and other teaching aids

**Cecil textbook of medicine.**
*Goldman, Lee; Ausiello, Dennis*

22. ed. /b edited by Lee Goldman, Dennis Ausiello : Philadelphia, Pa. ;a London : W. B. Saunders, 2004. - xxxvii, 2506, cv s.
ISBN:0-7216-9652-X LIBRIS-ID:9149384
Library search

*Harrison, Tinsley Randolph*
**Harrison's principles of internal medicine**
*Kasper, Dennis L.*

16. ed. /b editors, Dennis L. Kasper ... : New York : McGraw-Hill, cop. 2005 - 2 vol. (1299, 128 s.
ISBN:0-07-139140-1 (set) LIBRIS-ID:9390862
URL:
http://proxy.ub.umu.se/login?url=http://ovidsp.ovid.com/ovidweb.cgi?T=JS&MODE=ovid&NEWS=n&P
Fulltext för användare inom Umeå universitet
Library search

*Nguyen, Thach.*
**Management of complex cardiovascular problems : the evidence-based medicine approach**

3.ed. : Malden, Mass. : Blackwell Futura, 2007 - xii, 451 p.
ISBN:978-1-4051-4031-7 (alk. paper) LIBRIS-ID:11302084
Library search

*Warrell, David A.; Weatherall, David J.0 101117*
**Oxford textbook of medicine**

4. ed. : Oxford : Oxford University Press, cop. 2003 - 3 vol. (1085, 1558, 1504 s. )
ISBN:0-19-262922-0 LIBRIS-ID:8718557
Library search