Course syllabus for

**Inflammation in clinical medicine, 7.5 credits**

Inflammation inom klinisk medicin, 7.5 hp

This course syllabus is valid from autumn 2007.

Please note that the course syllabus is available in the following versions:
Autumn2007, Autumn2009

<table>
<thead>
<tr>
<th>Course code</th>
<th>LKG007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course name</td>
<td>Inflammation in clinical medicine</td>
</tr>
<tr>
<td>Credits</td>
<td>7.5 credits</td>
</tr>
<tr>
<td>Form of Education</td>
<td>Higher Education, study regulation 2007</td>
</tr>
<tr>
<td>Main field of study</td>
<td>Medicine</td>
</tr>
<tr>
<td>Level</td>
<td>AV - Second cycle</td>
</tr>
<tr>
<td>Grading scale</td>
<td>Fail (U) or pass (G)</td>
</tr>
<tr>
<td>Department</td>
<td>Department of Medicine, Huddinge</td>
</tr>
<tr>
<td>Participating institutions</td>
<td>• Department of Medical Biochemistry and Biophysics</td>
</tr>
<tr>
<td></td>
<td>• Department of Laboratory Medicine</td>
</tr>
</tbody>
</table>

Decided by Programnämnden för läkarprogrammet

Decision date 2007-05-08

Course syllabus valid from Autumn 2007

**Specific entry requirements**

Semester 4 in the Study Programme in Medicine and basic electrocardiography knowledge and experience of patient contact.

**Objectives**

The general aims are limited to what is common and important in clinical aspects of inflammation in diseases in the acute internal medicine areas of activity cardiology, gastroenterology, hematology, traumatology, nephrology, hepatology, emergency medicine, intensive care medicine and infection medicine, and relate to the general aims of the entire Study Programme in Medicine. The knowledge is tiered according to the SOLO taxonomy and the skills according to Miller's pyramid. Knowledge and understanding In balance Know and understand (S3) clinically and practically important general aspects on the immune defence and how it contributes to the homeostasis in the healthy individual. Describe (S2) central functions of phagocytes, lymphocytes and vascular endothelium. In imbalance Understand (S3) the 4 cardinal symptoms of the acute inflammation - flushing, pain, swelling and impaired function and their pathophysiology, aetiology and clinical antecedents. Understand (S3) abnormal physical...
structure and function, symptoms, theories about disease mechanisms, prognosis, principles of investigation and treatment, and, where applicable, importance of rehabilitation in common, acute and/or serious inflammatory diseases in the areas of activity, and have such knowledge (S2) of less common diseases. Understand and be able to apply principles of (S3) pharmacological treatment of inflammation. Be familiar with (S2) choice and evaluation of alleviative and disease-modifying drug treatment and mechanisms for and follow-up of effect and the most important adverse drug reactions. In interplay Know (S3) work distribution between different nursing levels in the handling of inflammatory diseases or symptoms with main focus on acute inflammatory conditions. Understand (S2) the importance of life-long learning and the organisation of the medical research. Skills Direct contact (M4) take medical history, drug history, and carry out a systematic status regarding inflammatory diseases and symptoms, and particularly the acute inflammation. Understand principles of (M2) selection, performance and information to patients about common examinations in the investigation of inflammation. Be able to (M3) initially process and understand principles of treatment of acute inflammatory diseases particularly acute arthritis, systemic inflammation response syndrome, acute episodes of inflammatory gastrointestinal diseases, liver inflammation and acute episodes of airway inflammation and inflammation in infectious diseases, other inflammatory diseases, neutropenic conditions, and be able to account for (M2) the importance of the inflammation for common cardiovascular, endocrine and nephrological diseases. Understand (M2) general principles of treatment of less common but, potentially, dangerous diseases. Master (M4) professional treatment, work patient-focused, be able to (M3) reply to questions, give explanation, advice, instructions, prescriptions and rely difficult information to patients and families, and use effective preventive and behaviour-changing strategies in inflammation diseases (professional development). Be able to (M3) process and interpret the results of medical history and common examinations, set diagnosis, discuss differential diagnoses, make clinical decisions, and identify intensive care-demanding patients, (M3) review and evaluate clinical issues critically based on evidence-based medicine and formulate aims and action plans for care. In interplay Be able to (M3) interact with colleagues, other nursing instances and staff for effective treatment of inflammation. Understand the principles of evidence-based medicine and (M3) apply common administrative routines. Be able to handle (M3) the weaknesses and limitations of medical and personal knowledge, identify and evaluate risks for the patient, himself/herself and others. Behaviour Demonstrate (M3) a critical and scientific approach, identify, discuss and explain ethical problems and consequences of his/her own and others' actions in clinical situations, and in the final stage of life. Scientific development During the course, the students meet practical examples of evidence-based medicine (EBM) and health technical analysis (HTA) and should (S2) be able to explain the principles of rational drug choice. The students will also face the conditions of clinical research and should be able to (S2) explain the difference and importance of randomised scientific studies in comparison with non-randomised clinical studies. Professional development The students should understand and be able to explain the importance of an empathetic attitude to patients in acute inflammatory conditions (S2).

Content

The course is given in collaboration between basic and branch specialities where inflammation and inflammatory diseases are common and/or important, and in the clinical specialities which correspond to the core course clinical medicine (theme 3). Furthermore, basic scientific aspects are included relevant to acute inflammation equivalent to 10% of the theory of the course. Coordination with teaching of equivalent function systems, with previous and following courses,h also takes place . The course consists of the following 2 parts: Practical placement and theoretical placement including a supercase and a written examination. The course division in credit points: The course gives 7.5 HE credits, with the following distribution: Practical placement 4.5 higher education credits, and theoretical placement 3 higher education credits. Clinical nucleus The course consists of 5 weeks with placement parts which have either theoretical specialisation (VFU-T) or practical specialisation (VFU-P), the later takes place in wards, emergency units and clinics but can also be located to training care centres in primary care. The course is completed with a study period and a written final examination. Detailed integrating assignments: Senses and the nervous system: Long pain. Circulation: Swelling in extremity. Blood picture and immune systems: Anaemia, fever. Digestion: Jaundice. Motion: Swelling/pain in joint.

Course code: LKG007
Teaching methods

The course consists of both theory-based (VFU-T) and clinical (VFU-P) teaching in open and in-patient care in hospitals and, where applicable, primary care. The teaching is provided according to the supercase model. In short, the students, individually or in groups, study a real patient case which is followed from an inflammation aspect from the beginning to the end of the course, when presentation takes place in case seminars with other students and course administration. During the course, the students are offered a menu of lectures and seminars, time for independent studies and database search in e.g. PubMed during the theoretical placement. During practical placement, the teaching is given mainly as placement in the wards or clinics of the hospital and provides practical training in diagnosis, investigation and treatment of inflammation. During both theoretical placement and practical placement, teaching takes place in the form of integrating seminars with case methodology where the integrating assignments as well as other cases are covered. The knowledge fields professional and scientific development are treated continuously. The course contains placement in medical emergency units (internal medicine and infection medicine).

Examination

Compulsory participation All seminars, demonstrations, proficiency training and placement including on-call service is compulsory. Examination takes place through approved participation in compulsory teaching with achieved course objectives, passed individual oral/written and/or practical assignments, approved learning portfolio. Approved clinical teaching is required for the right to participate in the examination. The number of examination and practical training sessions follows the local guidelines of Karolinska Institutet, which means that the number of examinations is limited to 6, while placement parts may only be repeated only once. The examination consists of 2 parts: 1. Presentation of individual supercase where the students in groups and with identifiable personal efforts lead case seminars of the course. For a Pass grade, the student's individual actions must be identified and approved as well as treatment of issues, problem identification and problem solving and correspond to knowledge which corresponds to the aims of the course. 2. Written examination that is based on the learning outcomes and the pedagogical contents of the course.

Transitional provisions

If the course is closed-down or undergoes major changes, at least two additional examinations (excluding regular examinations) in the earlier contents are provided during a period of a year from the date of the change.

Other directives

The course connects to and advances knowledge within Stage B such as the core of the Study Programme in Medicine. The course can during an interim period partly be given at the same time as an elective course with similar specialisation.

Literature and other teaching aids

AccessMedicine

McGraw-Hill

Behandlingsprogram för Stockholms Läns Landsting: Akut Internmedicin.
Stockholms läns landsting,

Infektionsmedicin : epidemiologi, klinik, terapi
Iwarson, Sten; Norrby, Ragnar
Internmedicin
Berglund, Göran; Abrahamsson, Hasse; Wilhelmsson, Jan

Läkemedelsboken, n 2007

Antibiotika- och kemoterapi : behandling av infektioner i öppen vård

Praktisk geriatrik
Wahlund, Lars-Olof
URL: http://www2.liber.se/bilder/omslag/100/4705302o

PubMed