



**Karolinska  
Institutet**

Course syllabus for

## **Malformations, trauma and abdominal pain - an advanced course in Pediatric Surgery, 7.5 credits**

Missbildningar, trauma och ont i magen - en fördjupningskurs i barnkirurgi, 7.5 hp

This course has been cancelled, for further information see Transitional provisions in the last version of the syllabus.

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

Autumn2008 , Spring2009 , Autumn2009

Course code	LKG052
Course name	Malformations, trauma and abdominal pain - an advanced course in Pediatric Surgery
Credits	7.5 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 Women's and Children's Health
Participating institutions	<ul style="list-style-type: none"><li>• Department of Cell and Molecular Biology</li><li>• Department of Clinical Science, Intervention and Technology</li><li>• Department of Molecular Medicine and Surgery</li></ul>
Decided by	Programnämnden för läkarprogrammet
Decision date	2008-11-03
Course syllabus valid from	Autumn 2008

### **Specific entry requirements**

A pass in all courses and in examinations in semesters 1-9 in the Study Programme in Medicine, and a completed course in Clinical medicine, specialisation reproduction and development in semester 10.

### **Objectives**

The general aim is to achieve advanced knowledge of the surgical sick child from the birth to adulthood, including prenatal diagnosis and treatment and a specific understanding of investigation and treatment of children with acute abdominal pains. The knowledge is tiered according to the SOLO taxonomy (S1-S4) and the skills according to Miller's pyramid (M1-M4) \*. The learning outcomes presume that the student has achieved the learning outcomes of the course Clinical medicine - specialisation reproduction and development. Knowledge and understanding The student should - be able to describe prenatal diagnosis

of abnormalities including prenatal counselling, treatment and labour planning (S2) - be able to relate common and unusual abnormalities and their embryological background (S3) - be able to analyse fluid balance and nutrition during the neonatal period (S3) - be able to relate other surgical diseases during the neonatal period e.g. NEC (S3) - could relate surgical diseases after the neonatal period (S3) - be able to analyse cause of and treatment of large traumas including multitrauma and ATLS (S3) - be able to theorize around children with pain in the stomach (S4) - be able to theorize about the formation mechanisms of injuries regarding suspicion of abuse (S4) - be able to analyse cases with ethics and difficult decisions as the starting point (S3) Skills: The student should - be able to show how to care for the sick and newborn child and its parents and siblings (M3) - know how to judge fluid balance and nutrition during the neonatal period (M2) - be able to manage, investigate and suggest treatment of patient after infancy with stomach pains (M3) - be able to manage a small trauma (M4) - be able to participate in the treatment of large traumas including multitrauma and ATLS (M3) - know how to achieve venous access (M2) - be able to communicate with children in different age groups (M4) Approach: The student is expected - after guidance respect the decisions of patients and parents in genetically conditioned diseases and other injuries suffered by children (S3) - to in a professional way respond to and guide children, youths, parents and future parents considering gender, different cultures and religions and personal integrity (M3) - to in a professional way and with respect to the skills of different individuals and professions partake in a cross-professional team (M3) - have a non-prestigious and realistic view on personal knowledge and skills, and know when to seek advice (M4)

## Content

Integration with basic scientific subjects equivalent to 10%, i. e. just under one credit, will take place inter alia with respect to embryology and clinical genetics through cooperation with the above mentioned departments and centres at Karolinska Institutet. Scientific development will be met, both through insight into the research carried out in paediatric surgery at Karolinska Institutet and through the assignment of a small project that should be presented in the form of a so called CAT to each student (see below under the heading Examination). The development of professional skills is integrated by including the students in teams in the clinics to handle their own patients and systematically train the role of the physician. a) Skills and proficiency training The student will, in his/her clinic, have daily practice in caring for his/her sick children with family, and account for them in common rounds. During placement in the emergency ward, students will independently handle minor trauma, including lacerations and minor fractures, and manage medical history taking and primary examination of children with stomach pain. In collaboration with Simulatorcentrum, the student will train handling of multitrauma according to the ATLS principle. The student will have the opportunity to train basic surgical techniques and assist in some surgeries. b) Subject integration The course will be coordinated with courses in pediatrics, genetics, surgery, embryology and obstetrics. c) Clinical connection Teaching will mainly be given through clinical placings in different paediatric surgical departments and clinics, including the paediatric surgical emergency department at the Astrid Lindgren Children's Hospital. d) Primary care connection Connection to the primary care will take place through placing in health care centres, provided that the children's perspective in such a placing can be met. This is of specific importance for assessing acute abdomen in children after infancy. Furthermore, the students will be placed in the Child health care centre and with pediatricians in out-patient care. e) Particularly concerned perspectives (genders, ethnicity, religion, disabilities) The course will particularly consider children with different grade of disability. The students will through daily contact with patients and parents with different cultural background be trained in their attitude to individuals with different ethnicity and religion. Gender and its importance for paediatric surgical care will be illuminated continuously during the course. f) Research link During the course, current research in paediatric surgery in the department of Health of women and children will be presented to the students. Interested students may also be given an opportunity to make their project works at the department. In the course, a VetU integrated advanced assignment is included. Integrating assignments in the course: The course consists of 11 integrating assignments divided in 5 function systems. Mental Unconsciousness/coma Stress/crisis reaction Hematopoiesis and the immune system Lump in the groin Digestion Abdominal pain Abdominal swelling Constipation Vomiting/lack of appetite/nausea Resistance in the abdomen Reproduction Pain in testicle Swelling in testicle/scrotum Development and aging Physical abnormality

## Teaching methods

Occasional lectures. Problem-oriented seminars with student-activating element. Supervised bedside teaching. The main part of the teaching will be through clinical placings in departments and clinics, and an emergency department. Each student will get a personal supervisor from the first course week. These will mainly be experienced paediatric surgeons and in some cases resident physicians nearing the end of the education in paediatric surgery. During the course, two, or three theme days will be held along with other student-selected courses and other educations at the department. These theme days are: Children abuse Difficult professional situations Ethics and paediatrics

## Examination

Compulsory parts: Approved clinical placings, active participation in seminars and an approved project work. The examination will consist of an own work based on a clinical issue or patient, in which the student should make an advanced literature survey according to the principles of evidence-based medicine. The student should write a so called CAT (Critically Appraised Subject), to be presented to other students and the clinic physician in a final seminar. Limitations of the number examination 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.

## 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 stages of the Study Programme in Medicine C. The examiner may with immediate effect interrupt a student's placement if the student demonstrates such serious deficiencies in knowledge, skills or attitudes that patient safety or patient confidence in healthcare is at risk. If the placement is interrupted, it implies that the student fails in the current part. In such cases, an individual action plan should be set up, where it comes clear which activities and examinations are required, before the student is given the possibility to further placement. \* The knowledge is tiered according to the SOLO taxonomy: S1) simple (e.g. know, identify), S2) compound (e.g. account for, describe), S3) related (e.g. analyse, relate), and S4) extended (e.g. theorise, analyse). The skills are structured according to Miller's pyramid: M1) know, M2) know how to carry out M3) be able to demonstrate, and M4) be able to carry out in a professional manner.

## Literature and other teaching aids

### Kompendium i barnkirurgi och barnortopedi

*Frenckner, Björn; Hirsch, Georg*

[Ny, omarb. och uppdaterad utg.] /b Björn Frenckner & Georg Hirsch (red.) : Stockholm : Karolinska University Press :b Medicinska bokhandeln, 2004 - 254 s.

ISBN:91-7140-005-2 LIBRIS-ID:9683102

[Library search](#)

### Newborn surgery

*Puri, Prem*

2. ed. : London : Arnold, 2003 - xix, 955 s.

ISBN:0-340-76144-X (inb.) LIBRIS-ID:9408910

[Library search](#)

**Pediatric surgery**

*Holcomb, George W.; Murphy, J. Patrick; Ashcraft, Keith W.*

4. ed. : Philadelphia, Pa. ;a London : Saunders, cop. 2004 - 1184 p.

ISBN:9780721602226 LIBRIS-ID:5523106

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