UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Emergency

1920-2-H4102D015-H4102D047M

Aims

Internal Medicine

At the end of the clerkship program the student should be able to:

· adequately approach patient encounter (adapt attitude and language to both patient status and environment (out-patient, in-patient, emergency)

· Properly collect a medical history

· Imput and extract data from an electronic medical data base (proper use of medical language)

· Identify signs and symptoms of abnormality /alteration (interpretation of the most common biochemical tests)

· Practice the proper physical examination/maneuvers on patients (general examination, abdomen, cardiovascular and thorax-pulmonary)

· Blood pressure, central and peripheral heart rate measurement, Oximetry, ECG

· Apply the clinical reasoning based on signs, symptoms and laboratory findings

General Surgery

At the end of the course/activity block, the student will be able to:

· Approach a surgical patient

· Harvest a medical history

· Learn the appropriate terminology to communicate with patients and medical staff

· Use an electronic database for clinical data

· Identify, examine and describe the main pathological symptoms and signs in relation to surgical pathology. Highlight on a multidisciplinary approach, exploiting the PBL Method.

Theory and practical skills to perform the basic clinical examination tests in general surgery and surgical specialties.

Emergency

At the end of the course/activity block, the student will be able to:

· Learning the basics and mechanisms of physiopathology, diagnosis, monitoring and treatment of clinical emergencies, medical and surgical.

· Apply BLSD and ACLS cardio-pulmonary resuscitation protocols

Contents

The medical Clerkship is designed to allow students to develop an integrated approach to the doctor-patient relationship.

In the Medical Clerkship, the focus is on learning core medical concepts and basic professional skills to prepare students for the Clinical program and beyond.

Internal Medicine

The clerkship program is based on 3 major components:

1. Verbal data-gathering (including communication skills, medical history-taking; Age-specific approach for infants, children, adolescents, and older adults, and the healthy female evaluation

2. Basic physical examination skills. Key physical exam steps (Inspection, Palpation, Percussion, Auscultation), along with expected and unexpected findings. clues for identifying characteristic symptoms and diagnosing patient problems

3. Data interpretation (patient-physician relationship, signs & symptoms, diagnostic tests findings evaluation). Reporting and documenting findings for electronic charting

General Surgery

General principles and practical skills for harvesting a medical history.

The surgical history and documentation.

Basic physical evaluation skills, oriented for a surgical approach to the patient.

Basic principles of data interpretation (laboratory, radiology) in relation with the clinical evaluation.

Emergency

Evaluation of the patient general conditions.

Guidelines for the recovery and maintenance of the vital functions (BLSD and ACLS).

Acute cardiac failure.

Neurological emergencies. Coma and syncope.

Acute Respiratory Failures.

Shock (diagnosis and treatment).

Detailed program

Internal Medicine

- MEDICAL HISTORY
  BIOLOGICAL FUNCTIONS, SIGNS and SYMPTOMS
- Pathophysiology of Pain (Chest , Abdomen, Headache , Back and Neck)
- State of conscousness /Sleep
- Thirst / Hunger,
- Diuresis, Bowel alterations
- Vomiting, Indigestion,
- Cough, Dyspnea
- Pruritus, skin alterations
- Palpitations
- Libido and sexual activity
- Fatigue
- Dizziness and Vertigo
- Syncope
- GENERAL EXAMINATION
- Gait disorders, imbalance, decubitus
- Confusion and delirium, hemispatial neglet
- General body conformation – grade of sexual development/differentiation
- Nutritional Status /Idratation
- Body Temperature (fever, rash)
- Cianosis
- Skin pigmentation (aundice, pruritus) /Skin disorders /Infectious exanthemas
- Edemi
- Head & Neck,
- Enlargement of lymph nodes and spleen
- Breast
- HEMATOLOGIC ALTERATIONS
- Anemia
- Bleeding and thrombosis
- Interpreting Peripheral Blood Smears
- ENDOCRIN SYSTEM
- Pituitary gland, Thyroid, Parathyroids, Thymus, Pancreas, Adrenal, Testicle, Ovary
- CHEST
- Normal and pathological breathing
- Cough,
- Hemoptysis
- Hypoxia, cianosis
- Examination of chest
- Functional evaluation of the respiratory system

- Interpretation of basic chest imaging
- HEARTH and VESSELS
- Rithm Disorders
- Examination of hearth, arteries and veins
- Auscultation (murmurs, tones, rubbings)
- Blood pressure
- Principles of ECG
- ABDOMEN
- Unintentional weight loss
- Gastrointestinal bleeding
- Diarrhea and constipation (stool exam)
- Jaundice
- Abdominal swelling and ascites
- Examination of the abdomen
- Ghiandole salivari, Esofago, Stomaco, Duodeno, Digiuno, ileo e colon, Regione ano-rettale, Fegato, Vie biliari, Pancreas esocrino, Milza
- Knowledge of the principles of digestive Endoscopy digestiva
- Liver biopsy (principles)
- KIDNEY
- Fluid and electrolyte disturbances
- Examination of the kidney
- Imaging and functional examination of the kidney (Urinary test)
- Kidney biopsy (principles)

General Surgery

- General principles for harvesting a medical history, with age and patient specific approach (e.g. children, old adults, healthy female evaluation…). The surgical history and documentation.
- Basic physical evaluation skills, oriented for a surgical approach to the patient.
- Principles of clinical data interpretation (laboratory, radiology). Basic principles for the evaluation of district-specific x-Ray and CT-scans.
- Reporting and storing medical history and findings for electronic charting / database.
- The symptoms and manifestation of disease in general surgery
- Examination of the abdomen
- Examination of hearth and thorax from a surgical prospective
- Multidisciplinary examination of the groin
- Principles of urological examination
- Examination of the breast
- Examination of skin lesion and lumps, examination of both traumatic and surgical scars,burns, flaps and grafts.
- Examination of the pudendum and vagina
- Examination of the penis and scrotum
- General principles of the orthopedic examination: generic joint examination, focus on the examination of the single joint, peculiar features of the hand, spine. Clinical gait and limp examination.
- Focused examination in vascular surgery: the carotid artery, clinical features and examination of aortic aneurysm, arterial and venous examination of upper and lower limbs. Evaluation and examination of ulcers.
- Clinical evaluation in head and neck surgery, focused examination off the ear, nose and throat. Focused examination of neck and thyroid.
- The oral and maxillofacial evaluation: basic principles and features.
- Basic principles of a neurosurgery focused global and focal neurological examination.
- The evaluation of the traumatic patient: the minor trauma, body check; the major trauma, focus on the standard (ATLS) Trauma-Team evaluation.

Emergency

- Venous access in emergency.
- Vital signs recording in emergency.
- Cardiac defibrillation and pacing.
- CPR simulation.
- Evaluation and treatment of comatose patient.
- Evaluation of patients undergoing emergency surgery.
- Airways management.
- Acid base interpretation.
- Treatment of shock.

Evaluation and treatment of poly trauma.

Prerequisites

Internal Medicine

Adequate knowledge of

· Human anatomy

· Biochemistry

· Physiology

· Fundamentals of Radiology

General Surgery

Successfully passed the propaedeutic courses defined by the previous semester

Pre-clinical block (anatomy, biochemistry, physiology…) successfully passed

Emergency

Pre-clinical block (anatomy, biochemistry, physiology…) successfully passed

Teaching form

Internal Medicine

Adequate knowledge of

· Human anatomy

· Biochemistry

· Physiology

· Fundamentals of Radiology

· Successfully passed the propaedeutic courses defined by the previous semester

General Surgery

Clerkship program, with rotation in small groups (about max 10 students) in surgical specialties, general practitioner and in the emergency department:

- PBL / CBL

- Practice sessions with puppets or among students/teachers

- Attending Out- and Inpatients hospital wards

Attending general practitioner wards

Emergency

Clerkship program, with rotation in small groups (about max 10 students) in surgical specialties and in the emergency department:

- Course methodology for BLSD e ACLS

- Practice sessions with puppets or among students/teachers

- Discussion of clinical cases

OTHER INFORMATIONS:

Internal Medicine

Students shall receive regular feedback throughout the clerkship according to their critical appraisal and medical problem-solving skills, as well as their understanding of therapeutic consequences and eventual further investigations. During normal patient care, students will be required to demonstrate these skills and incorporate this knowledge into their care decisions

General Surgery

The program is designed to allow students to develop an integrated approach to the doctor-patient encounter. This program includes:

- verbal data-gathering: communication skills and know-how for harvesting a medical history

- skills of a physical examination

- data interpretation, which includes the interpretation of verbal and physical findings from the patient as well as diagnostic tests

Students receive regular feedback throughout the clerkship according to their critical appraisal and medical problem-solving skills, as well as their understanding of therapeutic consequences and eventual further investigations. During normal patient care, students will be required to demonstrate these skills and incorporate this knowledge into their care decisions

Emergency

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Textbook and teaching resource

Internal Medicine

Seidel's physical examination handbook 9th Ed.- Solomon, Ball et al. 2018

· Harrison's Principles of Internal Medicine 20th ed- Fauci et Al 2018

· Oxford Handbook of Clinical and Laboratory Investigation, Drew Provan Oxford University press, 2018

General Surgery

· Physical Examination for Surgeons: An Aid to the MRCS OSCE. Petrut Gogalniceanu, James Pegrum, William Lynn. Cambridge University Press; 1st edition. ISBN-10: 1107625548; ISBN-13: 978-1107625549.

· Sabiston Textbook of Surgery: The Biological Basis of Modern Surgical Practice. Courtney M. Townsend, R. Daniel Beauchamp, B. Mark Evers. Elsevier LTD, Oxford; 20th edition. ISBN-10: 0323299873; ISBN-13: 978-0323299879

· Physical Examination of the Spine and Extremities. Stanley Hoppenfeld. Pearson Ed, 2013. ISBN-10: 1292026626, ISBN-13: 978-1292026626

Emergency

· Kleinman ME, et Al. Part 5: adult basic life support and cardiopulmonary resuscitation quality: 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Circulation. 2015;132(suppl 2):S414–S43

· Callaway CW, et Al. Part 4: advanced life support: 2015 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science With Treatment Recommendations. Circulation. 2015;132(suppl 1):S84–S145

· Tintinalli's Emergency Medicine Manual. David M. Cline, Michael T. Fitch, O. John Ma, Rita K. Cydulka, Scott A. Joing, Vincent J. Wang. McGraw-Hill. 8th Edition.

ISBN:17-9780071837026

Semester

Assessment method

Internal Medicine

Ongoing testing after each PBL/PCL:

· Short essay (including group-work) related to each PBL/PCL session

· The development of clinical skills is assessed by OSCE (Objective structured clinical examination). Each OSCE faces the student with a unique clinical case which will test particular skills such as history-taking, physical examination, practical tests/maneuvers, communication skills, test/data interpretation, medical decision-making. Each student receives feedback from the assessor as well as overall scores for each OSCE.

· The preparation , by the student, of a multiple choice quiz for each PBL/CBL session

Final test:

· Multiple choice quiz (30 questions – 1 point for question – minimal level for idoneity: 18/30

· Collection of the single short papers/compositions

The final evaluation shall be: Pass /not Passed

General Surgery

Ongoing tests after each PBL/PCL:

- Short essay (eventually also in groups)

- Practical tests/maneuvers

- Short paper/composition in relation to problems treated with PBL/PCL

- Multiple choice tests

Final test:

- Multiple choice tests

- Practical tests/maneuvers

- Collection of the single short papers/compositions

- Development of clinical skills is assessed by OSCE (Objective structured clinical examination). Each OSCE faces the student with a unique clinical case which will test particular skills such as history-taking, physical examination, practical tests/maneuvers, communication skills, test/data interpretation, medical decision-making. Each student receives feedback from the assessor as well as overall scores for each OSCE.

Emergency

Ongoing tests:

- Practical tests/maneuvers

- Multiple choice tests

Final test:

- Multiple choice tests

- Practical tests/maneuvers

BLSD and ACLS

Office hours

By e-mail