UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Basic Clinical Skills

2425-2-H4102D053

Aims

The BCS course should provide adequate formation on the basic semeiology of internale medicine, Surgery and Emergency
each module shall be detailed underneath:

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

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

Surgery
At the end of the course/activity block, the student will have understood the general history of surgery through the centuries and the current role of surgery in the general management of the GI diseases.

They will also be able to adapt to the surgical patient the following items:
· Approach the patient
· Harvest a medical and surgical history
· adopt the appropriate terminology to communicate with patients and surgical staff
· Use an electronic database for clinical data
· Identify, examine and describe the main pathological symptoms and signs in relation to the surgical aspects of GI disorders. Highlight on a multidisciplinary approach, exploiting the PBL Method.
Adopt the appropriate theorical and practical skills to perform the basic clinical examination tests in general surgery and surgical specialties.
Perform basic surgica maneuvers such as pelvic examination, urinary catheterisation, skin sutures

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

Emergency
Evaluation of the patient general conditions. (ABCDE evaluation)
Guidelines for the recovery and maintenance of the vital functions (BLSD and ACLS).
Acute cardiac failure and Introduction to cardiac support (Pharmacological and Mechanical)
Pre Hospital Trauma Life Support (Introduction and principles of treatments of traumatic Patients in Pre Hospital Setting)
Acute Respiratory Failures and Introduction to Respiratory Support
Shock (types, diagnosis and principles of treatment).

Surgery
history and current role of surgery in the general management of patients
Approach to the surgical patient, professional approach to specialist in other medica disciplines and the nurse staff.
Appropriate collection of patient's clinical and social history
Physiscal examination of the surgical patient
Formulation of diagnostical hypostesis and planning of the subsequent diagnostic workup.
technique of basic maneuvers such as pelvic examination, Urinary catheterisation, skin suture

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)

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.

Surgery
history and current role of surgery in the general management of patients
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Prerequisites

Internal Medicine
Adequate knowledge of
· Human anatomy
· Biochemistry
· Physiology
· Fundamentals of Radiology

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

Surgery
basic medical skills

Teaching form

Internal Medicine

The clinical clerkship program provides for rotational attendance in different specialist fields of internal medicine, both adult and pediatric. The defined activities will be carried out in teaching sessions, in practical sessions, in self-learning and on outpatient and inpatients:

- Problem-based learning (PBL)
- Case Based Learning (CBL)
- Practice sessions with puppets or among students/teachers
- Attending Out- and Inpatients hospital wards
- Frontal lectures
- Attendance of in patients and outpatients units

Students shall receive regular feedbacks 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
Teaching with 8 hours of frontal lessons
Interactive teaching:
Pre Hospital Trauma Life Support (PHTLS): 8 hours with practical activity on mannequins and simulated scenarios in small groups
Basic Life Support and Defibrillation (BLS-D): 16 hours with alternating lectures, practical exercises and simulated scenarios
Pediatric Basic Life Support and Defibrillation (PBLS-D): 16 hours with alternating lectures, practical exercises and simulated scenarios
Observation form for Urgency and Emergency activities with tutoring by the anesthetist/resuscitator on emergency/urgency duty: 12 hours compulsory for all students.
Methodology foreseen by the BLSD and ACLS courses
Practical exercises with dummies or between students/teachers
Discussion of clinical cases

Surgery
Frontal lessons, PBL sessions, bedside exercises

Textbook and teaching resource

Internal Medicine

- Seidel's physical examination handbook 9?? Ed.- Solomon, Ball et al. 2018
- Harrison’s Principles of Internal Medicine 20?? ed- Fauci et Al 2018
- Oxford Handbook of Clinical and Laboratory Investigation, Drew Provan Oxford University press, 2018
- 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.

Emergency

- Ashish R Panchal et Al. Part 3: Adult Basic and Advanced Life Support: 2020 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Circulation . 2020 Oct 20;142(16_suppl_2):S366-S468
- 2021 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science With Treatment Recommendations: Summary From the Basic Life Support; Advanced Life Support; Neonatal Life Support; Education, Implementation, and Teams; First Aid Task Forces; and the

COVID-19 Working Group. Circulation. 2022 Mar;145(9):e645-e721.

- 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. ISBN:17-9780071837026 Pollak A. et Al. PHTLS 10th Edition

Surgery
Sabiston's textbook of surgery
Physical Examination for Surgeons, ed. Petrut Gogalniceanu, James Pegrum and William Lynn. Published by Cambridge University Press. © Cambridge University Press 2015.

Semester

1st & 2nd semester

Assessment method

Internal Medicine & **Surgery**
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, propedeutic to practical examination: formal clinical evaluation of a patient (history, physical examination)
· Collection of the single short papers/compositions

The final evaluation shall be: **Pass /not Passed**

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 appointment
Internal Medicine
stefano.fagiuoli@unimib.it

Emergency
llorini@asst-pg23.it

mmezzapesa@asst-pg23.it

Surgery
fneri@asst-pg23.it
mpisano@asst-pg23.it

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION | GENDER EQUALITY