

Clinical Clerkship Curriculum Internal Medicine



AUC Clinical Curricula Guide to Duty Hours, Minimum Experience and Procedure Thresholds, Learner to Teacher Ratios, and Recognition

- I. In all rotations, AUC expects that students will follow the most recent ACGME duty-hour requirements for PGY-1 level residents, as specified for each rotation area.
- II. In all rotations, AUC expects that students who are required to be on call will be accommodated as required by the ACGME for residents on call.
- III. Each core rotation will indicate a minimum threshold experience to help prepare the student gain competency.
Internal Medicine – Complete 3-5 H&P's per week with complete case write up; see a wide-variety of patients with common medical problems as indicated in the syllabus such as DM, HTN, neoplasia, stroke, etc. Perform numerous procedures when possible as indicated in the syllabus such as insertion of catheters, IV's, NG tubes, venipuncture, etc.
- IV. Each student must have adequate direct exposure with an attending and/or resident physician during the majority of the rotation. There should be no more than two learners (student and any other learner on the service) per resident or three learners for an attending. Lectures, library, or video are considered direct exposure.
- V. Each student must have recognition of the site where training is being performed. This includes direct knowledge of the student being trained at the site with written verification and appropriate badging of the student as a visiting student or other appropriate designation.

Internal Medicine Student Core Clerkship Curriculum

Internal medicine is a core clerkship of twelve weeks duration. All internal medicine core clerkships are conducted at teaching hospitals that have an ACGME-accredited residency in internal medicine; at a Federally Qualified Health Center that is listed by ACGME as a participating institution in a psychiatry residency program where parts of the clerkship are conducted in a hospital or outpatient site by board-certified internists; or in the U.K. at a SIFT-approved hospital that has an internal medicine department with certified internal medicine physicians. An extensive curriculum has been developed and frequently revised. There is an effort to encourage thinking in terms of basic principles with the goal to understand the principles, know where to find specific information and recognize the limits of one's knowledge and skills.

This curriculum is intended to serve as a basis for instruction to medical students during their core clerkship in internal medicine. It is intended to provide a common level of knowledge, proficiency and procedural competency for any student at any training site. It incorporates key strategic goals:

1. Vertical integration of basic science and clinical curricula.
2. Competency-based learning and evaluation.
3. Bridging of typical resident curriculum guidelines including ACGME competencies.
4. Adherence to current standards in medical education and the practice of medicine.

The curriculum is not intended to list or describe every common entity seen in the practice of internal medicine. It is, however, expected that the student will have exposure to a wide variety of medical problems encountered in the practice of internal medicine in both the hospital and ambulatory settings. It is also anticipated that students will learn through didactic lectures and independent reading the specific issues required to deal with the clinical problems presented.

COMPETENCIES

PATIENT CARE

Students must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Students should demonstrate specific skills, including:

1. Obtaining a patient's history in a logical, organized and thorough or appropriately focused manner.
2. Performing a physical examination for a patient in a logical, organized, respectful and thorough or appropriately focused manner.
3. Identifying problems with which a patient presents, appropriately synthesizing these into logical clinical syndromes and prioritizing them.
4. Formulating a differential diagnosis based on the findings from the history and physical examination and identifying the most likely diagnoses.
5. Using the differential diagnosis to help guide diagnostic test ordering and sequencing and based on performance characteristics of tests selecting the diagnostic studies with the greatest likelihood of providing useful results at a reasonable cost.
6. Interpreting specific diagnostic tests and procedures that are ordered to evaluate patients who present with common symptoms and diagnoses encountered in the practice of internal medicine.
7. Approaching EKG interpretation in a systematic and logical fashion and recognizing the characteristics of a normal EKG and basic abnormal EKGs and approaching chest radiography in a systematic and logical fashion and recognizing basic abnormal findings on a chest radiograph.
8. Formulating an initial therapeutic plan, explaining to what extent the plan is based on pathophysiologic reasoning and scientific evidence of effectiveness and monitoring the response to therapy.
9. Recognizing when to screen for certain conditions based on age and risk factors and what to do with the screening tests.
10. Demonstrating step-by-step performance of basic procedures in internal medicine with technical proficiency, e.g. venipuncture, nasogastric tube placement, peripheral intravenous catheter insertion and urethral catheterization.
11. Consistently observing universal precautions.

Potential evaluation methods

Direct observation of history and physical on patient or OSCE, chart review, case presentation, global rating, simulation lab

MEDICAL KNOWLEDGE

Students must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care. Students should be able to define, describe and discuss:

1. The methods of deductive reasoning, forward thinking and pattern recognition in clinical decision-making.
2. How critical pathways or practice guidelines can be used to guide diagnostic test ordering and therapeutic decision-making.

3. Define and describe indications for testing, range of normal, critical values, pathophysiologic implications of abnormal results and the relative cost of diagnostic tests and procedures commonly encountered in the practice of internal medicine.
4. Basic ethical principles in medicine, including autonomy, beneficence, nonmaleficence, truth telling and confidentiality and respect for autonomy (informed choice).
5. General types of preventive care issues that should be addressed on a routine basis in adult patients.
6. Approach to the following patients with a symptom, sign or abnormal laboratory value: abdominal pain, altered mental status, anemia, back pain, chest pain, cough, dyspnea, dysuria, fever, fluid/electrolyte/acid-base disorders, gastrointestinal bleeding, knee pain, rash, upper respiratory complaints.
7. Approach to the following patients with a known condition: acute myocardial infarction, acute renal failure and chronic kidney disease, common cancers, COPD/obstructive airway disease, diabetes mellitus, dyslipidemias, heart failure, HIV infection, hypertension, liver disease, major depression, nosocomial infections, obesity, pneumonia, rheumatologic problems, smoking cessation, substance abuse and venous thromboembolism.
8. Application of knowledge of anatomy, physiology, biochemistry, pathophysiology, pharmacology, microbiology and epidemiology to clinical problem solving.
9. Key sources for obtaining updated information on issues relevant to the medical management of the adult patient and key questions to ask when critically appraising medical articles.

Potential evaluation methods

Chart Review, case presentations, simulations, global evaluation

PRACTICE-BASED LEARNING AND IMPROVEMENT

Students must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. Students are expected to:

1. Demonstrate self-directed learning in every case.
2. Acknowledge gaps in knowledge and skills and develop plan to address them.
3. Locate, appraise (using knowledge of study design and statistical methods), and assimilate evidence from scientific studies related to their patients' health problems.
4. Use information technology to support patient care decisions and patient education.
5. Summarize and present to colleagues what was learned from consulting the medical literature.
6. Seek feedback regularly and respond appropriately and productively.

Potential evaluation methods

Study plan, chart review, global evaluation, journal club presentations

INTERPERSONAL & COMMUNICATION SKILLS

Students must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients families, and professional associates. Students are expected to:

1. Use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.
2. Prepare and present, written and oral, comprehensive and focused, inpatient and outpatient cases that include all relevant features, as clinically appropriate.
3. Demonstrate respect for patient's privacy when dealing with protected health information and follow Health Information and Portability and Accountability Act standards.
4. Work effectively with others as a member of a health care team, incorporating skills in inter-professional communication and collaboration.
5. Ability to develop a therapeutic and ethically sound relationship with patients.
6. Recognize the importance of patient preferences, perspectives, and perceptions regarding health and illness and strategies to successfully negotiate treatment plans and patient adherence.

Potential evaluation methods

Global evaluation, observation of history and physical, OSCE

PROFESSIONALISM

Students must demonstrate a commitment to carrying out the responsibilities as a student and future professional, adherence to ethical principles, and sensitivity to a diverse patient population. Students are expected to:

1. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.
2. Demonstrate professional behavior in areas of reliability, honesty, responsibility, helpfulness, selflessness, appearance, and initiative.

Potential evaluation methods

Observation and rating by attending physician, residents, nurses, and or patients (global rating). OSCE and chart review

SYSTEMS – BASED PRACTICE

Students must demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value. Students are expected to:

1. Understand the concept of systems-based practice and how other professionals, organizations, and society affect patient care.
2. Understand barriers to care faced by patients in the community setting and the key personnel and programs in and out of the hospital that may be able to contribute to the ongoing care of patients (e.g. home health providers, social workers, case managers, community health organizations).
3. Demonstrate a commitment to cost-effective health care and resource allocation that does not compromise the quality of care.
4. Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources.

5. Understand the principles of clinical quality improvement and the analysis and improvement of systems to address common quality problems (e.g. treatment delays, medication errors, failure to use evidence-based diagnostics/treatments, failure to provide preventive care).

Potential evaluation methods

Chart review, case presentations, OSCE, global rating

Didactic Teaching Sessions

Students are expected to attend ALL lecture sessions unless 'scrubbed in' or involved in treating an acute patient situation. These lectures may include (but are not limited to):

- Attending-level rounds on a daily basis
- Morning report
- Noon lecture
- Grand rounds
- Lectures for 3rd year Internal Medicine students
- Journal Clubs on your assigned service
- Attending/resident/student team approach, with teacher-learner ratio within ACGME guidelines

Resources:

1. Simulation lab
2. Library
3. Internet access and medical data base availability

Final evaluation and outcome measure:

NBME subject exam and attending written evaluation and narrative report.