

Gastroenterology/Hepatology Elective Curriculum Temple University Internal Medicine Residency Program

*Adapted from the Michigan State University Internal Medicine Inpatient Curriculum dated
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I. Educational Goals

The gastroenterology/hepatology elective is an inpatient and outpatient rotation that exposes the resident to the common problems encountered in the diagnosis and management of diseases in the field of gastroenterology/hepatology.

II. Principal Teaching Methods

A. Supervised patient care

- i. Gastroenterology inpatient consult service – Residents encounter the typical and occasionally unusual diseases in gastroenterology on a busy inpatient consult service. The team consists of a gastroenterology fellow, one or more medicine residents, and at times 4th year medical students, all of whom are supervised by a gastroenterology attending. Residents participate by performing a history and physical on patients on whom the service is consulted, present those patients to the attending, and write new and follow up consult notes that are reviewed, amended, and co-signed by the attending. Residents usually spend about 3 weeks of the elective on this service.
- ii. Hepatology inpatient consult service - Residents encounter the typical and occasionally unusual diseases in hepatology on a busy inpatient consult service. The team consists of a gastroenterology fellow, one or more medicine residents, and rarely 4th year medical students, all of whom are supervised by the hepatology attending. Residents participate by performing a history and physical on patients on whom the service is consulted, present those patients to the attending, and write new and follow up consult notes that are reviewed, amended, and co-signed by the attending. Residents spend 1 week of the elective on this service.
- iii. Gastroenterology outpatient clinic – Residents participate in the gastroenterology clinic, seeing new and follow up patients in the same clinic sessions as the gastroenterology fellows. Residents are responsible for the first encounter with the patient, the presentation of that patient to the attending, and the note that is reviewed, amended, and co-signed by the attending. Residents spend a half day per week in gastroenterology clinic over the course of the elective.
- iv. Procedures – Residents are not required to participate in the performance of procedures as part of the elective, but are encouraged to observe those procedures that are performed on the patients they are following. Enthusiastic residents who show a willingness to perform procedures may at times have the opportunity to learn the fundamentals of endoscopic examination.

B. Conferences

Medicine residents on the gastroenterology/hepatology elective are expected to attend all of the following conferences organized by the section of gastroenterology and hepatology. Additionally, those residents will also attend most of the departmental conferences outlined in the general internal medicine ward service curriculum.

- i. Once a month, a Visiting Professor conference is held. The visitor presents a lecture for an hour on his/her area of expertise. Research design and implementation are also discussed. Following this, the GI residents present 2 cases relevant to the visitor's area of expertise; each case is followed by a discussion.
- ii. GI Journal Club (1 hour) – weekly conference at which two presenters review specific contemporary literature from assigned journals – a critical discussion including research techniques of the conduct of the study and its results follows.
- iii. GI Procedure Conference (30 minutes) – weekly conference at which endoscopic techniques, endoscopy pictures, motility techniques, endoscopic ultrasound, laser, etc. is discussed.
- iv. GI Pathophysiology Conference (1 hour) – weekly; assigned Pathophysiology topics are reviewed by GI fellows; faculty member moderates discussion.
- v. Liver Pathology Conference (1 hour) – weekly, interesting pathology from the in- or out-patient hepatology service is presented and reviewed by staff pathologist.
- vi. GI Pathology Conference (1 hour) – monthly, interesting pathology from the in- or out-patient gastroenterology service is presented and reviewed by staff pathologist.
- vii. Dysphagia Conference (1 hour, monthly) – interesting cases and techniques relevant to the swallowing mechanism are discussed. Conference moderated by staff gastroenterologist; attended by speech pathologists, ENT staff and radiology staff. Cases are reviewed; topics are posted.
- viii. GI Grand Rounds (1.5 hours – weekly) – on weeks when a Visiting Professor is not here, fellows prepare, present and discuss pertinent literature relevant to a patient presentation; 2 cases per week.
- ix. GI Radiology Conference (1 hour) – monthly, interesting radiologic studies reviewed by staff gastroenterologist.
- x. Topic Review Conference (1 hour) – monthly, case-oriented, evidence-based topic review presented by faculty member.
- xi. Board Review Conference (1 hour) – bimonthly, staff gastroenterologist presents board type questions and leads a discussion of the answers with the GI residents.

III. Educational Resources

The resident is provided with a packet of articles covering the core topics in gastroenterology and hepatology. Additionally, the resident has access to the same library- and computer-based information resources described in the general medicine inpatient ward service curriculum.

IV. Methods of Evaluation

- A. Resident performance - Each resident on the elective is evaluated by each teaching attending who works with him for more than one week. For time spent together exceeding two weeks, additional feedback at the mid-point of the time together is expected. The evaluation is communicated both verbally in a face-to-face meeting between the attending and resident and on a written, competency-based form developed along internal medicine RRC guidelines.
- B. Teaching attending and rotation performance – Residents evaluate their teaching attendings and the elective in a written format at the end of the rotation. The elective director reviews all the resident evaluations.

V. Tiered Objectives Organized by Competency

Note: Some objectives may address more than one competency. Such instances are identified with the additional competencies noted in italics following the item.

Where tiered objectives are listed, it is expected that residents in each year will have mastered the competencies outlined for the previous levels of training.

A. Patient Care

i. History taking

1. PGY-1 residents will:

- (a) efficiently elicit a thorough, hypothesis-driven history from the patient or patient's representative, focusing on the gastroenterologic/hepatologic elements.
- (b) incorporate verbal and non-verbal techniques in their history taking to promote disclosure of relevant information and maintenance of patient comfort.
- (c) use translator services appropriately.
- (d) include in the information they elicit their patients' emotional feelings about their illnesses and their beliefs about its causes and remedies. (*interpersonal and communication skills*)

2. PGY-2 residents will take the history more efficiently without compromising accuracy or thoroughness. (*interpersonal and communication skills*)

ii. Researching medical records

1. PGY-1 residents will:

- (a) supplement the history obtained from the patient with appropriate information gleaned from medical records, including but not limited to labs, radiologic studies, electrocardiograms, echocardiograms, stress tests, pulmonary function tests, pathology, records of previous inpatient admissions, records from outside institutions, and records from the primary care physician.
- (b) understand how to access the variety of information systems in the hospital to retrieve appropriate past medical records and studies.
- (c) understand the process by which outside medical records are obtained. (*system-based practice*)

2. PGY-2 residents will routinely identify and prioritize the important records to be obtained.

iii. Physical examination

1. PGY-1 residents will:

- (a) perform a systematic physical examination with particular attention to elements commonly associated with gastroenterologic/hepatologic disease, obtained discretely, with attention to patient comfort and privacy.
- (b) consistently and reliably identify abnormal findings.
- (c) be able to report the physiologic and anatomic bases of normal and abnormal findings.

2. PGY-2 residents will:

- (a) anticipate and detect subtle findings.
- (b) teach physical exam skills to interns and medical students.
- iv. Charting – Residents at all levels will record data in the medical record in a thorough, legible, systematic manner and at regular, timely intervals. Such documentation will include not only documentation of the facts, but will also reflect the reasoning underlying the resident’s decision making. (*interpersonal and communication skills*)
- v. Procedures
 - 1. Residents at all levels will understand the indications, contraindications, necessary equipment, specimen handling, potential complications, and patient after-care of esophagogastroduodenoscopy, colonoscopy, capsule enteroscopy, endoscopic retrograde cholangiopancreatography, endoscopic ultrasound, and liver biopsy. (*medical knowledge*)
- vi. Medical decision making, clinical judgment, and management plans
 - 1. PGY-1 residents will:
 - (a) interrelate findings and disease processes, including the correct interpretation of
 - (i) symptoms and abnormalities on physical examination
 - (ii) routine lab studies, including the basic metabolic panel, liver function tests, complete blood count, and coagulation studies
 - (iii) microbiologic studies, including gram stains and culture results
 - (iv) abdominal plain films (*medical knowledge*)
 - (b) be able to create a focused, thorough, appropriately prioritized problem list.
 - (c) be able to suggest a diagnostic and therapeutic plan of action based on their problem list that reflects the identified priorities and respects patient preferences.
 - (d) utilize evidence-based strategies or practice guidelines whenever applicable. Cost effective strategies will be emphasized. (*system-based practice*)
 - (e) understand the risks and benefits of the proposed diagnostic studies and therapeutic interventions. Particular attention will be given to communicating to the patient those risks and benefits and ensuring that the patient has a clear understanding of the course of action. (*interpersonal and communication skills*)
 - (f) understand how to evaluate the success of therapeutic interventions, including measurement of the desired response and recognition of complications.
 - (g) recognize and respond appropriately to situations in which urgent or emergent intervention is required.
 - 2. PGY-2 residents will:
 - (a) be able to identify alternate strategies to the one they have proposed and discuss the risks and benefits of those strategies.
 - (b) continually reassess clinical information and data and alter the initial plan when appropriate.
 - (c) be able to identify the limitations in the execution or interpretation of proposed diagnostic studies. (*medical knowledge*)
 - (d) not only have knowledge of the complications associated with therapeutic interventions, but will anticipate them.
 - 3. PGY-3 residents will:

- (a) develop plans that are not overly reliant on tests and procedures.
- (b) make decisions in situations in which there is insufficient or ambiguous literature to make definitive recommendations.

B. Medical Knowledge

i. PGY-1 residents will:

1. be able to recall the basic differential diagnosis for each gastroenterologic/hepatologic item in their problem list with particular attention to those diagnoses that are immediately life threatening or which require immediate intervention.
2. recall the approach to therapy for common diagnoses, including the information that is necessary to guide clinical decision making.
3. be able to recommend the initial care in gastroenterologic/hepatologic emergencies such as acute GI bleeding.
4. recall the typical presentations of diseases common to gastroenterology/hepatology.
5. supplement their medical knowledge with information from sources including textbooks, review articles, and on-line databases. They will begin to understand and apply information from current medical literature. (*practice based learning and improvement*)

ii. PGY-2 residents will:

1. be able to recall an expanded differential diagnosis including common and uncommon causes of the patient's gastroenterologic/hepatologic problems.
2. recall the specific indications and contraindications for the treatment of common gastroenterologic/hepatologic diagnoses.
3. recall unusual presentations of diseases common to gastroenterology/hepatology.
4. recognize the indications for transfer of care to an intensive care unit setting for the patient with gastroenterologic/hepatologic problems. (*system-based practice*)
5. begin to critically evaluate current medical literature as it applies to the care of their patients. (*practice based learning and improvement*)
6. recognize cultural barriers to treating disease and maintaining good health. These barriers will be addressed with sensitivity and with respect for the patient's beliefs. (*interpersonal and communication skills*)

iii. PGY-3 residents will:

1. be able to recall a comprehensive differential diagnosis, including rare causes of the patient's gastroenterologic/hepatologic problems.
2. recall the various options for treatment of common gastroenterologic/hepatologic diagnoses and understand the specific indications and contraindications for each of those options.
3. actively access and critically evaluate current medical literature as it applies to the care of their patients. (*practice based learning and improvement*)

C. Practice Based Learning and Improvement

i. PGY-1 residents will:

1. recognize their limitations and seek help in situations in which they would benefit from the assistance of an upper year resident or attending.
2. identify their own weaknesses compared to the skills of their peers.
3. be receptive and responsive to constructive criticism.

4. routinely reevaluate their clinical decision-making when unexpected negative outcomes are encountered.
 5. continuously seek to expand their medical knowledge. (*medical knowledge, professionalism*)
 6. deliver care that reflects learning from previous experiences.
- D. Interpersonal and Communication Skills
- i. PGY-1 residents will:
 1. develop effective and respectful relationships with patients, students, peers, supervisors, and other medical and administrative workers.
 2. be effective listeners in medical and professional encounters, including recognizing verbal and non-verbal cues from the people with whom they interact.
 3. communicate respect, empathy, and concern in their encounters.
 4. write legibly in all situations.
 5. remain quickly, reliably, and easily accessible by beeper when on duty. (*professionalism*)
 6. provide effective and detailed sign-out to allow covering physicians to knowledgeable and efficiently continue their patients' care. (*system-based practice*)
 7. continually communicate to their patients in understandable terms the nature of their care, including diagnoses, the level of certainty regarding those diagnoses, the diagnostic and therapeutic plan, indications for and adverse effects of prescribed medications, and follow-up after hospitalization.
 8. develop skills for dealing with difficult patients and stressful situations.
 9. develop skills for handling situations of unprofessional behavior by other health care professionals.
 10. provide constructive feedback regarding the gastroenterology/hepatology elective. (*professionalism, system-based practice*)
 - ii. PGY-2 residents will:
 1. model effective and respectful relationships with patients, students, peers, supervisors, and other medical and administrative workers.
 2. model skills for dealing with difficult patients and stressful situations.
 3. model skills for handling situations of unprofessional behavior by other health care professionals.
 4. be able to direct sensitive or difficult interactions with patients or their representatives, including the delivery of bad news or initiation of end-of-life discussions.
- E. Professionalism
- i. PGY-1 residents will:
 1. comply with all locally and nationally accepted standards of behavior for health care professionals, including but not limited to those mandated by law.
 2. in all activities demonstrate a commitment to excellence.
 3. in nearly all situations, put the needs of their patients ahead of their own.
 4. ensure adequate attention to their own needs, particularly those of rest, sleep, and personal relationships, to optimize their readiness to provide the highest quality care for their patients.

5. take ownership of the well being of the patients assigned to their care, no matter how brief the assignment.
 6. act as patient advocates.
 7. show respect at all times for the unique and individual perspectives of patients and their families.
 8. show respect for the opinions and skills of their colleagues.
 9. be committed to participating in the organized curricular program offered by the elective. This participation includes attendance and, when appropriate, making contributions to enhance the education of others.
 10. manage work efficiently to allow attendance at educational conferences.
 11. acknowledge errors and work to minimize them. (*practice based learning and improvement*)
 12. respond to unpleasant patient or professional interactions with restraint, insight, and empathy. The betterment of patient care will remain the priority in all attempts at conflict resolution. (*interpersonal and communication skills*)
 13. reflect on their own behavior after difficult or unpleasant interactions. (*practice based learning and improvement*)
 14. act as a role model for medical students.
- ii. PGY-2 residents will:
 1. be willing to challenge the accepted plan of care when their professional judgment differs from that of other providers.
 2. recognize situations in which junior colleagues would benefit from their assistance.
 3. act as a role model for interns and fellow residents.
 - iii. PGY-3 residents will anticipate situations in which their junior colleagues would benefit from their assistance.
- F. System-based Practice
- i. PGY-1 residents will:
 1. utilize hospital resources to deliver effective, efficient, high quality patient care.
 2. remain sensitive to health care costs while providing high quality care.
 3. be cooperative in complying with performance improvement initiatives developed by the hospital administration. (*practice based learning and improvement, professionalism*)
 - ii. PGY-2 residents will demonstrate awareness of the insurance status of their patients and its impact on their care options.
 - iii. PGY-3 residents will:
 1. demonstrate adaptability to change.
 2. recognize the ways in which individual practice decisions affect other health care providers, the health care system, and society.