Educational Purpose:
The Outpatient Clinic and Endoscopy rotation at The University of Texas M.D. Anderson Cancer Center (UTMDACC) provides a unique opportunity for fellows in training to see patients referred to the outpatient facilities regarding specific issues related to gastrointestinal cancer problems that often include complex cases, referrals from outside physicians, and second or third opinions regarding diagnosis and management. Working one-on-one with faculty in the Endoscopy Unit and clinics provides close interaction between fellows and staff in the effective analysis of a very wide range of gastrointestinal problems, and the effective management and efficiency of operations related to outpatient procedures.

The outpatient experience provides an opportunity to relate to family members who often accompany patients to the UTMDACC. The effective use of symptomatic treatment, as well as specific treatment for structural pathological conditions is emphasized. Fellows will attend outpatient clinic patient and procedures. Fellows will be assigned 2-4 clinic days per week.

Objectives:
During this rotation the trainee should develop a sound knowledge of tumor biology and develop a thorough familiarity with the literature on cancer epidemiology, primary prevention, and screening for colorectal cancer. They should become knowledgeable about the recommended guidelines for screening gastrointestinal neoplasia. It is important for them to have a working knowledge of clinical genetics and understand the approaches to the genetic diagnosis of FAP, HNPCC and other polyposis syndromes. They should become familiar with the pathologic interpretations of tissues biopsies. An emphasis should be made in learning the principles of chemotherapy for gastrointestinal cancer and radiation treatment for early and advanced tumors.

In this outpatient rotation the trainee should understand how to counsel patients who have had gastrointestinal neoplasia and how to manage patients who inquire the management of positive family histories of gastrointestinal cancer. In addition to this, the trainee should understand the appropriate surveillance and surveillance intervals for patients at high risk for developing cancer and those in whom premalignant lesions have been detected.

During this important rotation fellows will be responsible for evaluation and management of outpatients who are scheduled for elective procedures which include, but are not limited to:
EGD with or without biopsy, dilation, polypectomy, esophageal banding, stent placement, tumor ablation
- Colonoscopy with or without biopsy, polypectomy, stent placement, tumor ablation
- Enteroscopy with or without biopsy, stent placement
PEG/PEJ placement

Minimum levels of achievement in each competency are expected during each of the three years of fellowship training. Those meeting competency will receive a score of 5 in the program’s evaluation system. Fellows performing at a level better than expected for that competency receive a score of 6 or 7 in the evaluation system, those at a level better than most fellows at that PGY receive an 8, and those performing at a level deemed to be “one of the best fellows ever observed” will receive a score of 9. Fellows receiving a score of 4 or below are deemed deficient in that competency; this will be brought to the attention of the program director immediately, and, if necessary, remediation will be implemented.

The following are the goals and objectives for each competency at each level of training for the Outpatient Clinic and Endoscopy rotation at UTMDACC:

**Year I Fellow:**

**Goal:** A Year I fellow should be able to assess new patient problems. This rotation exposes fellows to both acute and chronic outpatient gastrointestinal oncological pathology. They will formulate and execute a treatment plan with guidance and teach basic gastroenterology skills to medical students and other trainees. Year I fellows should begin to develop basic procedural competencies in diagnostic upper endoscopy and colonoscopy.

**Patient Care Objectives:**
- Perform an accurate physical examination and present information concisely with an initial assessment plan. Follow the patient’s disease course from visit to visit with possible. With attending consultation, formulate and execute an impression and a list of recommendations. When indicated, consent patients for procedures and order appropriate diagnostic tests (e.g., endoscopy, radiologic tests, etc.) in conjunction with the primary/referring service.
- Perform with supervision the following basic procedures:
  - Colonoscopy
    - By completion of Year I a fellow should be able to perform a diagnostic colonoscopy to the cecum with limited assistance.
  - EsophagoGastroDuodenoscopy (EGD or Upper Endoscopy)
    - By completion of Year I a fellow should be able to perform a diagnostic endoscopy to the second portion of the duodenum.
Fellows will have formal instruction and clinical experience and will demonstrate competence in:

- Primary prevention, and screening for colorectal cancer
- Knowledge about the recommended guidelines for other screening gastrointestinal neoplasia
- Basic learning principles of chemotherapy for gastrointestinal cancer
- Basic learning principles of radiation therapy for early and advanced tumors
- Counseling patients who have or have had gastrointestinal neoplasia
- Understand the appropriate surveillance and surveillance intervals for patients at high risk for developing cancer and those in whom premalignant lesions have been detected

Learn to provide outpatient care that is safe and compassionate and to develop the ability to thoroughly and clearly educate the patient in the relevant areas of disease prevention, detection, progression and therapy to promote health.

**Medical Knowledge Objectives:**

- Attend core conferences and teaching rounds to learn the pathophysiology, epidemiology, disease management and procedures and medicine management skills for common and uncommon gastrointestinal oncological diseases including:
  - Primary prevention, and screening for colorectal cancer
  - Knowledge about the recommended guidelines for other screening gastrointestinal neoplasia
  - Basic learning principles of chemotherapy for gastrointestinal cancer
  - Basic learning principles of radiation therapy for early and advanced tumors
  - Counseling patients who have or have had gastrointestinal neoplasia
  - Understand the appropriate surveillance and surveillance intervals for patients at high risk for developing cancer and those in whom premalignant lesions have been detected

- Accumulate and begin to solve the issues that he/she encounters from other trainees, attendings and related medical professionals.
- Teach medical students the basics of gastroenterology and hepatology care.
- Achieve an average percentile score of at least 61.18 on the “General” section of the in-service Gastroenterology Training Examination (GTE) exam. This score is the national average on this exam for Year I fellows.
- By end of Year I, pass the Internal Medicine Board Examination.

**Practice-Based Learning Objectives:**

- Become familiar with the concepts of quality improvement.
Participate in conferences such as M&M, geared to the programmatic review of adverse events.

Begin to review, analyze and utilize scientific evidence from the gastroenterology literature for the management of patients with GI oncological diseases.

Learn the best practice patterns to facilitate gastrointestinal disease care through clinic operating procedures and patient interactions.

**Interpersonal Communication Skill Objectives:**
- Interview patients and family members accurately, patiently and compassionately and present information in an understandable and compassionate manner. Convey bad news compassionately and honestly.
- Learn to communicate effectively with staff, peers, attending gastroenterologists/hepatologists, referring physicians and other consultants.

**Professionalism Objectives:**
- Learn to understand and demonstrate professional behavior in daily activities.
- Participate in professionalism-based learning activities through conferences.
- Learn to interact collegially with his/her peer group and other healthcare professionals.
- Learn to practice ethical principles with relation to patient care and confidentiality.
- Learn to practice appropriate interactions with pharmaceutical representatives and be unbiased in prescribing habits.
- Learn to be sensitive to cultural, age, gender and disability issues.
- Cross-cover colleagues’ services when needed and conduct this coverage carefully with appropriate feedback to responsible colleagues.
- Participate in program planning.

**Systems-Based Practice Objectives:**
- Attend conferences concerning healthcare system patient management and components of systems of healthcare.
- Achieve basic understanding of healthcare systems related to gastrointestinal oncology care and overall system activities.
- Learn proper documentation skills to practice cost-effective care.
- Utilize an appropriate range of healthcare professionals to care for patients, working closely with social services to maximize patient care and understanding the role of hospice, referring appropriately when needed.
- Begin involvement to understand the standard operating procedures and quality improvement initiatives within the hospital.
- Attend national gastroenterology conferences (e.g., ACG and endoscopy training courses).
Year II Fellow:

**Goal:** A Year II fellow should learn to assess and care for a larger volume of outpatients and learn and teach basic textbook and evidence-based medicine to medical students and other trainees. Year II fellows should independently perform diagnostic upper endoscopy and colonoscopy and begin to perform therapeutic maneuvers.

**Patient Care Objectives:**
- Complete a time-efficient history and physical examination.
- Critique the work and orders of Year I fellows.
- Direct the Year I fellows successfully with the appropriate level of intervention for each trainee’s skills.
- Complete competency-level performance of the following basic procedures:
  - Colonoscopy
    - By completion of Year II, master all Year I colonoscopic skill requirements. Additionally, perform endoscopic maneuvers, including snare polypectomy and begin to develop competency in control of GI bleeding: sclerotherapy and thermal coagulopathy of bleeding vessels.
  - Upper Endoscopy
    - By completion of Year II, master all Year I upper endoscopic skill requirements. Additionally, begin to develop competency in performing therapeutic maneuvers: banding and sclerosing of varices, and sclerotherapy and thermal coagulopathy of bleeding vessels. Gastrostomy feeding tube placement (PEG).
- Fellows will have formal instruction and clinical experience and demonstrate competence in:
  - Knowledge of clinical genetics and understand the approaches to the genetic diagnosis of FAP, HNPCC and other polyposis syndromes
  - Familiarity with pathologic interpretations of tissues biopsies
  - Diagnosis of GI and hepatic complications of bone marrow transplant (including specifically graft versus host disease, venoocclusive disease, opportunistic infection) that present to the outpatient setting
  - Diagnosis of GI complications of chemotherapy and radiation therapy, including anemia, thrombocytopenia and neutropenia that present to the outpatient setting
  - Complicated acid-peptic diseases
- Present cases succinctly in a direct manner.
- Know the Outpatient Service’s patients at a management level.
- Handle consult calls respectfully and appropriately.
- Teach good symptom management skills to medical students and other trainees.
- Provide outpatient care that is safe and compassionate and develop the ability to thoroughly and clearly educate the patient in the relevant areas of disease prevention, detection, progression and therapy to promote gastrointestinal health.

**Medical Knowledge Objectives:**
- Begin to take a leadership role at core conferences and teaching rounds regarding the pathophysiology, epidemiology, disease management and procedures and medicine management skills for common and uncommon outpatient gastrointestinal diseases including:
  - Knowledge of clinical genetics and understand the approaches to the genetic diagnosis of FAP, HNPCC and other polyposis syndromes
  - Familiarity with pathologic interpretations of tissues biopsies
  - Diagnosis of GI and hepatic complications of bone marrow transplant (including specifically graft versus host disease, venoocclusive disease, opportunistic infection) that present to the outpatient setting
  - Diagnosis of GI complications of chemotherapy and radiation therapy, including anemia, thrombocytopenia and neutropenia that present to the outpatient setting
  - Complicated acid-peptic diseases

- Organize the team’s performance at teaching rounds.
- Read textbook and pertinent literature materials concerning problems encountered.
- Teach medical students and other trainees about gastrointestinal oncological disease states and patient management.
- Achieve an average percentile score of at least 62.98 on the “General” section of the in-service Gastroenterology Training Examination (GTE) exam. This score is the national average on this exam for Year II fellows

**Practice-Based Learning Objectives:**
- Participate in project groups, committees and hospital groups when requested.
- Participate in programmatic reviews and conferences studying adverse events.
- Give usable feedback to medical students and other trainees based on observation of their performance and assess improvement.
- Participate in problem-based quality improvement projects.
- Review, analyze and utilize scientific evidence from the gastroenterology literature for the management of patients with GI oncological diseases.
- Know the best practice patterns to facilitate gastrointestinal care through clinic operating procedures and patient interactions.
Interpersonal Communication Skill Objectives:
- Interview patients and family members accurately, patiently and compassionately and present information in an understandable manner. Convey bad news compassionately and honestly.
- Plan patient and family conferences.
- Counsel patients about transitioning to palliative care, when needed.
- Address or refer patients related to spiritual or existential issues.
- Communicate effectively with staff, peers, attending hepatologists/gastroenterologists, referring physicians and other consultants.
- Present cases succinctly, in a problem-based, direct manner.
- Learn to become a teacher of gastroenterology to junior trainees, medical students and other healthcare professionals.

Professionalism Objectives:
- Begin to mentor medical students, other trainees and Year I fellows in professional conduct.
- Understand and demonstrate professional behavior in daily activities.
- Participate in professionalism-based learning activities through conferences.
- Interact collegially with his/her peer group and other healthcare professionals, including acting responsibly in the larger context of pursuing programmatic successes.
- Practice ethical principles with relation to patient care and confidentiality.
- Practice interactions with pharmaceutical representatives and be unbiased in prescribing habits.
- Practice sensitivity to cultural, age, gender and disability issues.
- Cross-cover colleagues' services when needed and conduct this coverage carefully with appropriate feedback to responsible colleagues.
- Participate in program planning.

Systems-Based Practice Objectives:
- Attend conferences concerning healthcare system patient management and components of systems of healthcare.
- Understand and be able to work effectively related to hospital functions within M.D. Anderson Cancer Center.
- Understand and practice proper documentation skills to practice cost-effective care.
- Assist other trainees in the utilization of appropriate healthcare resources for the best care of the Outpatient GI Oncology Consultative Service’s patients.
- Model appropriate interactions in multidisciplinary planning, including standard operating procedures and quality improvement initiatives.
- Attend national gastroenterology or hepatology conferences (e.g., DDW or AASLD).
Year III Fellows:

Goal: The senior-level, Year III fellow should demonstrate rapid assessment and planning skills and near-attending level care planning and management, while teaching medical students and other trainees at near to or exceeding attending level teaching. Year III fellows should be able to perform diagnostic and therapeutic upper endoscopy and colonoscopy procedures independently.

Patient Care Objectives:
- Master the Year II fellow objectives.
- Demonstrate efficient organization of the Outpatient Service and a working knowledge of all patients.
- Demonstrate near-attending level capacity for program assessment and care planning.
- Attain trainer level proficiency in the following procedures pertinent to his/her career choices:
  - Colonoscopy
    - By completion of Year III, master all Year II colonoscopic skill requirements. Additionally, be able to independently intubate the terminal ileum and begin to develop independent mastery of more advanced maneuvers, e.g., removal of large or complex polyps by saline assisted polypectomy or piecemeal resection and control of bleeding using clips or argon plasma laser coagulation. Assist in stent placement.
  - Upper Endoscopy
    - By completion of Year III, master all Year II endoscopic skill requirements. Additionally, be able to pass a side viewing scope to identify the papilla or lesions difficult to observe with forward viewing scope and perform advanced maneuvers, such as placing clips on bleeding vessels or argon plasma laser coagulopathy. Assist in stent placing.
  - Small bowel enteroscopy
- Fellows will have formal instruction and clinical experience and demonstrate competence in:
  - Difficult to treat gastrointestinal opportunistic infections related to chemotherapy
  - Barrett’s Esophagus
  - Neuroendocrine gastrointestinal malignancies
  - Obscure gastrointestinal bleeding in oncological patients
  - Nutrition counseling in oncological patients
- Provide outpatient care that is safe and compassionate with the leadership ability to thoroughly and clearly educate the patient and all other trainees regarding relevant areas of disease prevention, detection, progression and therapy to promote gastrointestinal health.

**Medical Knowledge Objectives:**
- Access and critique the medical literature regarding gastroenterology problems encountered in oncological patients.
- Assume the trainee leadership role at core conferences and teaching rounds regarding the pathophysiology, epidemiology, disease management, procedures and medicine management skills for common and uncommon outpatient gastrointestinal diseases including:
  - Difficult to treat gastrointestinal opportunistic infections related to chemotherapy
  - Barrett’s Esophagus management
  - Neuroendocrine gastrointestinal malignancies
  - Obscure gastrointestinal bleeding in oncological patients
  - Nutrition counseling in oncological patients

- Teach medical students, other trainees and Year I & II fellows at near-attending level.
- Prepare for the ABIM certifying exam throughout the year.
- Organize team activities in a smooth and authoritative fashion.
- Assist Year II fellows’ development directly at teaching conferences and indirectly at work sites.
- Achieve an average percentile score of at least 64.07 on the “General” section of the in-service Gastroenterology Training Examination (GTE) exam. This score is the national average on this exam for Year III fellows.

**Practice-Based Learning Objectives:**
- Demonstrate mastery of Year II fellow skills and encourage participation of colleagues.
- Review, analyze and utilize scientific evidence from the gastroenterology literature for the management of patients with gastrointestinal problems, taking a leadership role in guiding Year I & II fellows and sharing relevant literature reviews with them.
- Know and be able to succinctly communicate the best practice patterns to facilitate gastrointestinal disease care through clinic operating procedures and patient interactions.

**Interpersonal Communication Skill Objectives:**
- Interview patients and family members accurately, patiently and compassionately and present information in an understandable manner. Convey bad news compassionately and honestly.
- Supervise Year I & II fellows’ work related to planning patient/family conferences and patient communications/counseling.
- Communicate effectively as a consultant with staff, peers, attending gastroenterologists, referring physicians and other consultants and lead other trainees related to appropriate fellow-to-medical-professional communications.
- Present cases succinctly, in a problem-based, direct manner.
- Assume the role of a teacher of gastroenterology to junior trainees, medical students and other healthcare professionals.

**Professionalism Objectives:**
- Demonstrate proficiency in Year II objectives.
- Mentor medical students, other trainees and fellows in professional conduct.
- Assist in formal teaching exercises as requested.
- Assert leadership in program planning.

**Systems-Based Practice Objectives:**
- Attend conferences concerning healthcare system patient management and components of systems of healthcare.
- Assist and mentor other trainees in utilization of appropriate M.D. Anderson Cancer Center healthcare resources for the best care of the GI outpatient service patients, including proper documentation skills.
- Model appropriate interactions in multidisciplinary planning, including improvements related to standard operating procedures and quality improvement initiatives.
- Participate in hospital and national medical association committees and multidisciplinary planning groups when requested.
- Attend national conferences directed at career goals.
- Demonstrate near-attending level utilization of overall systems of care.

**Teaching Methods:**
Gastroenterology fellows participate in the Outpatient Clinic and Endoscopy rotation at The University of Texas M.D. Anderson Cancer Center Service during all three fellowship years. One fellow is assigned to the Outpatient Service during all rotations. Teaching of medical students, residents and other trainees as well as appropriate interactions with other healthcare providers are important aspects of this rotation. Participating in all required conferences is mandatory, and rounding is an integral part of this experience. As fellows gain experience throughout their training, skills of organization and efficiency as well as team leadership become increasingly important.

This Outpatient experience will prepare the fellow to evaluate and manage acute and chronic gastrointestinal oncological diseases commonly seen that will be encountered in his future practice. They are to become knowledgeable about the recommended guidelines for screening gastrointestinal neoplasia. This rotation
will expose the fellow to a wide variety of problems seen in patients with gastrointestinal malignancies.

Fellows will learn to incorporate and interact with a multidisciplinary team at the Outpatient M.D. Anderson Clinic. They will learn to share patient co-management responsibilities with surgeons, oncologists and other members of this team.

Fellows assigned to this service will rotate through the Outpatient Center. Fellows will evaluate each patient and will make initial recommendations regarding diagnostic tests and treatments. They will make arrangements for studies such as GI endoscopic procedures. They will review the appropriateness of the procedure with the attending before making final scheduling plans. The fellow will follow each patient under active consultation on a regular basis, will make further recommendations as indicated and will keep the attending informed of the patient’s status. Fellows must also communicate with the procedure fellow for all diagnostic studies.

**Disease Mix:**
Fellows see a complete mix of gastrointestinal diseases including gastrointestinal cancers at M.D. Cancer Center. This Center has a substantial primary care basis for patients with oncological diseases, which provides the entire spectrum of internal medicine diagnoses and gastrointestinal care.

In addition to a wide variety of gastrointestinal pathology the fellow will also be exposed to conditions that range from pancreatitis, inflammatory bowel disease, and functional GI motility and pain disorders. There is an appropriate concentration of common gastrointestinal diseases such as peptic ulcer disease, gastroesophageal reflux disease and gastrointestinal infections. In particular, M.D. Anderson Cancer Center is a national and international referral center, and there is outstanding diversity of unusual diagnoses in the teaching services.

**Patient Characteristics:**
The Outpatient Consult Service at The University of Texas M.D. Anderson Cancer experience offers a diverse mix of socioeconomic and gender status. Teaching faculty provide an abundant supply of upper- and middle-class patients, and our contracts with medical assistance and pro bono care efforts ensure access to lower-income patients. Due to a primary care base simultaneous with the hospitals’ constantly active referrals, patients are seen in both acute status and in diagnostic dilemma status, with both common and uncommon disorders.

**Types of Clinical Encounters – Attending Supervision:**
Fellows provide consultative care under the supervision of an attending within duty hour limits and with faculty back up for situations of overload. Daily
attending supervision is available seven days per week. The attending has ultimate responsibility for patients.

**Procedures:**
During the Outpatient Service procedures are performed during daytime hours in the GI lab by the fellow under the direct supervision of the attending. Procedure based evaluation is performed twice per year by a supervising attending.

**Evaluation:**
Fellows are evaluated during the Outpatient Service rotation and are expected to participate in the evaluation of other fellows as well. This occurs in the following forms:

- Detailed, automated evaluations using the GMEIS system are submitted for each rotation. These evaluations are reflective of the program’s curriculum requirements. Attendings evaluate fellows, and the fellows evaluate the attendings as well. Quarterly evaluations include:
  - 360-degree (attending, nurse, nurse practitioner, staff/clerical, etc.);
  - Peer-reviewed; and
  - Patient.

  Evaluation summaries become part of the fellows’ and attendings’ promotional documents.

- The fellow also evaluates the Gastroenterology Fellowship Program annually through a confidential basis.

- Attendings evaluate the Gastroenterology Fellowship Program annually.

- A Curriculum Committee oversees major changes to the curriculum. Representative program personnel (i.e., program director, representative faculty and at least one fellow) are organized to review program goals and objectives and the effectiveness with which they are achieved. This group conducts a formal documented meeting at least annually for this purpose. In the evaluation process, the group must take into consideration written comments from the faculty, the most recent report of the GMEC of the sponsoring institution and the residents’ confidential written evaluations. If deficiencies are found, the group will prepare an explicit plan of action, which should be approved by the faculty and documented in the minutes of the meeting.

- The Program Director meets with all fellows individually twice per year.

- An in-service GTE exam is given to all fellows annually.

**Bibliography:**

- Resource Documents
  - *Up-To-Date*
  - *PubMed*
  - *Diseases of the Liver* - Leon Schiff and Eugene Schiff
- *Zakim and Boyer’s Hepatology: A Textbook of Liver Disease*
- Major Gastroenterology journals online and in the program’s fellow library including *Gastroenterology, American Journal of Gastroenterology, Gut, Hepatology, Liver Transplantation, Journal of Hepatology* and other major publications.

- Curricular Design
  - ACGME Outcome Project documentation (from www.acgme.org).
  - Graduate Education in Internal Medicine: A Resource Guide to Curriculum Development

- Pertinent Teaching References:
  - *Diseases of the Liver* - Leon Schiff and Eugene Schiff
  - *Zakim and Boyer’s Hepatology: A Textbook of Liver Disease*

### Competencies-at-a-Glance

**M.D. Anderson Outpatient Consult Service**

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The M.D. Anderson Outpatient Consult Service provides primary fellow exposure to gastrointestinal oncologic patients and career-related experiences in a community gastroenterology practice setting. All Service responsibilities reflect the teaching and evaluation of all six competencies. Day-to-day patient care, related teaching and the curriculum conferences during the rotation are the greatest elements that teach the competencies, and the global evaluation (provided for each rotation) is the most important single measurement device. In addition to didactic learning, medical center committee participation is encouraged to bolster system-wide knowledge and practice management understanding.

May 2009