DIVISION OF GASTROENTEROLOGY, HEPATOLOGY & NUTRITION

GASTROENTEROLOGY CLINICAL FELLOWSHIP

UT HOUSTON PROGRAM

HANDBOOK

2011-2012
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Physicians pursuing their post-MD/DO graduate training at The University of Texas Health Science Center at Houston Medical School Gastroenterology Fellowship Training Program (“the GI Fellowship Training Program” or “Program”) are appointed by The University of Texas System Medical Foundation (“Foundation”). No property interest in employment is created by such appointment. The Foundation reserve the right to change any requirements affecting the terms and conditions of employment of Fellow Physicians. Changes to this Handbook will become effective whenever the proper authorities so determine and will apply to both prospective Fellow Physicians and those already enrolled in the GI Fellowship Training Program.

The Foundation, a not-for-profit corporation, in cooperation with The University of Texas Medical School at Houston (“Medical School”), a component entity of The University of Texas Health Science Center at Houston, administers all aspects of the GI Fellowship Training Program. The Foundation performs administrative and educational functions for the benefit of both the GI Fellow Physician and the Program. These functions include, but are not limited to issuance of paychecks and other personnel services, maintenance of records, procurement and administration of benefits provided by the Foundation, and provision of mechanisms for effective coordination of the Program among the hospitals.

The Policy Review Committee (“PRC”) is charged with administrative governance of the Foundation. The PRC sets policy and procedures for the Graduate Medical Education (“GME”) Programs and provides administrative oversight for the Foundation.

The Graduate Medical Education Committee (“GMEC”) is a committee of the Medical School Faculty Senate that provides academic oversight for the GI Fellowship Training Program and ensures compliance with the Accreditation Council for Graduate Medical Education (“ACGME”) Institutional, Common, and Specialty/Subspecialty Program Requirements.

The Graduate Medical Education Office provides administrative services for all residency and fellowship programs:

The University of Texas Medical School at Houston
Graduate Medical Education Office

6431 Fannin Street, JJL 310
Houston, Texas 77030
Phone: 713/500-5151
Fax: 713/500-0612

E-mail: ms.gme@uth.tmc.edu
Website: http://med.uth.tmc.edu/administration/gme/
PROGRAM OVERVIEW

University of Texas at Houston Program - ACGME ID: 1444831017

The University of Texas at Houston Medical School at Houston fellowship in clinical gastroenterology is approved by the Accredited Council for Medical Education (ACGME)

AFFILIATED HOSPITALS

Affiliated hospitals for training gastroenterologist are dedicated to providing teaching, research and clinical activities at the highest standard. These world-class hospital affiliations provide the GI fellow with exposure not only to a large and diverse population, but also to a faculty renowned in gastrointestinal and liver diseases. Affiliated Hospitals:

- MEMORIAL HERMANN HOSPITAL – TEXAS MEDICAL CENTER (MHH)
- HARRIS COUNTY LBJ GENERAL HOSPITAL (LBJ)
- THE METHODIST HOSPITAL (TMH)
- UT M. D. ANDERSON CANCER CENTER (MDA)

The UT GI Program is a three-year clinical fellowship with research. First-year fellows are accepted to the program each year. Each fellow will have a basic core curriculum involving rotations at each of the affiliated facilities. With a faculty mentor fellows will participate in clinical research, basic research, or other scholarly activities. At the conclusion of the three-year fellowship training, the fellow will be a fully trained gastroenterologist who will be able to diagnose, treat, and manage all forms of gastrointestinal and liver disease and will be able to practice competently and independently in the field of gastroenterology.

EDUCATIONAL PURPOSES

CLINICAL EDUCATION OVERVIEW: The fellow is introduced to the management of patients with gastroenterological and liver diseases. During the training, the fellow will have the opportunity to assess a wide variety of acute and chronic gastroenterological and liver conditions. 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.

HOSPITAL CONSULT ROTATIONS IP: The fellow will evaluate patients on Medicine, Surgery, Ob-Gyn, Oncology, Neurology or other services. Rounds are made daily with the faculty attending. On rounds, teaching objectives include formulating a differential diagnosis and evaluating possible diagnostic possibilities and therapeutic options. Attention is given to an understanding of the underlying physiology and pathophysiology. Procedures, when necessary and appropriate, are performed by the fellow under the supervision of the faculty attending. Fellows will learn all aspects of gastroenterology and liver disease care and will display all general competencies during this experience.

HOSPITAL OP ROTATIONS: The fellow will participate in increasing levels of management/treatment involvement with patient needs depending on the fellow’s level of experience. The fellow will be expected to formulate the differential diagnosis, institute diagnostic studies and recommend therapy. The amount of learning obtained from each specific rotation is directly proportional the amount of time spent in the evaluation of the patients and asking questions to the attending faculty.

GASTROENTEROLOGY FOCUS: Fellows will develop familiarity of problems with complex gastroenterological issues related to irritable bowel syndrome, inflammatory bowel disease, motility disorders, malabsorption, and screening/surveillance for neoplasia or dysplasia. These are some of the more common conditions encountered and include the differential diagnosis of other structural abnormalities involved in the esophagus, stomach, or duodenum. Fellows will gain knowledge of management of medications that may have serious systemic complications and/or the potential for drug interaction.
HEPATOLOGY FOCUS: Fellows will develop familiarity with standard treatments for common complications such as ascites, portal hypertension or hepatic encephalopathy and will build familiarity with standard treatments of chronic liver diseases such as viral hepatitis, autoimmune liver diseases, metabolic liver diseases, drug-induced liver disease, fatty liver disease and liver tumors. Fellows will obtain exposure to the liver transplantation selection process and will receive experience in the timing of referring patients for liver transplantation.

RESEARCH ROTATION: The fellow is introduced to the field of gastroenterology and hepatology research. Year I fellows discuss and plan for future research. A specific project and mentor must be selected during the initial research rotation. Research Rotation is designed to allow time for research planning, work and post-research outcomes. The University of Texas at Houston GI Fellowship Program has a large faculty with diverse clinical and academic interests, ensuring that fellows have complete opportunities to investigate the gastroenterology or hepatology research project of their choice generally designed and conducted in close interaction with their research mentor. The fellow will participate in increasing levels of research activities, depending on the fellow’s level of experience. The amount of learning obtained from this rotation is directly proportional to the amount of time dedicated to research. Fellows will follow a complete course of research study during this rotation including research ethics, project exploration, planning, actual research activity, analysis, written outcomes and, ideally, presentation of their project at a national GI or hepatology meeting or in a peer-reviewed journal.

CONFERENCES:

WEEKLY GI READING CONFERENCE The GI Reading Conference (weekly core curriculum conference) is established to insure that all fellows master the basic sciences and major clinical topics relevant to gastroenterology and hepatology. The contents of the current edition of the major textbook in Gastroenterology and Hepatology (Sleisenger and Fordtran, 9th edition) provide the written curriculum for this conference. These sessions cover, over a three year period, the specific didactic material recommended by Subspecialty Program Requirements of the ACGME and the Gastroenterology Core Curriculum, May 2007 (AASLD, AGA, ACG, ASGE) including special task forces on Training in Acid-Peptic Disease, Biliary Tract Diseases and Pancreatic Disorders, Cellular and Molecular Physiology, Endoscopy, Ethics, Medical Economics, and System-Based Practice, Geriatric Gastroenterology, Hepatology, Inflammation and Enteric Infectious Disease, Malignancy, Motility and Functional Illnesses, Nutrition, Pathology, Pediatric Gastroenterology, Radiology, Research, Surgery, and Women’s Health in Digestive Diseases. Special sessions cover issues related to evidence based medicine, critical appraisal of medical literature, and research study design and analysis. The conference occurs Thursday mornings 7-8 AM. A faculty member is responsible for leading a discussion on the material through guiding questioning. A test written by the faculty member is given each week. This is a mandatory conference for all fellows. Tests are collected to become part of the fellows’ file.

TMC GI GRAND ROUND – UT and BCM GI fellows present clinical cases each week in which all the competencies are taught to participating fellows, faculty, and other learners. The goals and objectives of the conference cover the entire competency based curriculum. In addition, the conference is specifically designed to allow the fellow to learn and demonstrate Practice Based Learning and Improvement. The encounter of the fellow with the patient shows that the fellow has limits and deficiencies in knowledge, skills, and attitudes. Through analysis and reflection the fellow sets learning and improvement objectives. The fellow locates, appraises, and assimilates evidence from scientific studies related to the patient’s health problems. The fellow assembles all appropriate materials, including imaging studies, pathology slides, endoscopic photos, etc. and contacts the appropriate consultants (radiologists, pathologists, surgeons, etc.). The fellow incorporates explicit take home lessons into practice for future patients. The fellow presents to fellows, faculty and other health care professionals. This is a mandatory conference for all fellows.

GI NUTRITION CONFERENCE – “GASTROINTESTINAL AND LIVER DISEASE NUTRITION DESK REFERENCE” edited by Gerard E. Mullin, MD: Chapters are selected monthly with review and discussion lead by the GI fellow assigned. This is a mandatory conference for all fellows.

GI Pathology Conference – Chaired by Patrick Lynch, MD, UTMDACC G1.3616, each Wednesday at 4:00 pm This is a mandatory conference for the fellow(s) on UTMDACC Rotation(s).

GI ENDOSCOPY QUALITY IMPROVEMENT CONFERENCE AT LBJ meets monthly in 2nd floor Conference This is a mandatory conference for fellows on LBJ rotations.

GASTROENTEROLOGY JOURNAL CLUB - Current journal articles are presented and discussed once a month. This is a mandatory conference for all fellows.
HEPATOLOGY JOURNAL CLUB- Hepatology journal club every Wednesday morning. This is a mandatory conference for the fellow on Hepatology Rotation.

HEPATOLOGY – PATHOLOGY Review of liver pathology by members of the Department of Pathology. This is a mandatory conference for the fellow on Hepatology Rotation.

TEXAS MEDICAL CENTER - GI RESEARCH FORUM – Weekly series presented every Thursday at 4:00 pm at BCM from September through May. Speakers include a diverse mix of clinicians and basic scientists, from UT Houston, BCM, The Methodist Hospital, UTMB in Galveston, UTMDACC and from across the country the fellow on Hepatology. This is a mandatory conference for all fellows.

MULTIDISCIPLINARY CONFERENCE The Methodist Hospital – Weekly conference, the GI fellow on TMH rotation presents third Friday each month. This is a mandatory weekly conference for the fellow on TMH Rotation and is strongly recommended for all fellows, as assigned rotations allow. Mandatory for all fellows on the third week; when the GI fellows presents.

RADIOLOGY TEACHING ROUNDS WITH DR. HERBERT LOYD TMH Third Wednesday Scurlock Tower, Suite 500 This is a mandatory weekly conference for the fellow on TMH Rotation. This conference is strongly recommended for all fellows, as assigned rotations allow.

Gastroenterology M & M Conference: Meets each quarter. This is a mandatory conference for all fellows.

HEPATOLOGY - LIVER TRANSPLANT MEDICAL REVIEW BOARD This is a mandatory conference for the fellow on Hepatology Rotation.

HEPATOLOGY LIVER TRANSPLANT – M&M this is a mandatory conference for the fellow on Hepatology Rotation.

HEPATOLOGY LIVER TRANSPLANT LISTED PATIENT MEETING This is a mandatory conference for the fellow on Hepatology Rotation.

HEPATOLOGY - LIVER TUMOR CONFERENCE This is a mandatory conference for the fellow on Hepatology Rotation.

MANDATORY CONFERENCES AND MEETINGS
Attendance is mandatory for most conferences. If a fellow knows in advance that he/she is unable to attend a conference, he/she is to call and inform the Program Director and Fellowship Coordinator. Rotations are required to allow fellows to attend at educational conferences/meetings.

When a fellow is not present and/or on time for any mandatory conferences, a meeting with the Program Director will be scheduled. Fellows are required to attend a minimum of 90% of conferences during each quarter. If a Fellow’s attendance falls below 80%, then a letter will be placed in the fellow’s file documenting the lack of attendance.

Approved leaves and prior excused absences will not be counted against the fellow. Otherwise, there are absolutely no valid excuses for not being present at these conferences.

ROTATIONS, CALL and CLINIC

Rotation Schedules
Each year the rotation schedule is designed, with consideration for the 36 months of fellowship training, using the Gastroenterology Core Curriculum. The core curriculum for gastroenterology has established the training standards, guideline, and resources and are regularly updated by the societies representing gastroenterology/hepatology in The Gastroenterology Core Curriculum Steering Committee composed of representatives from: American College of Gastroenterology (ACG ); American Association for the Study of Liver Diseases (AASLD), American Gastroenterology Institute (AGA Institute); and American Society for Gastrointestinal Endoscopy (ASGE).

While every effort is made to accommodate each fellow in the Program, it is very important to follow the yearly rotation schedule as closely as possible. Each change made affects several people. Therefore, we ask that, barring unforeseen emergencies, you work the schedule that is outlined for you at the beginning of the academic year. However, if an emergency arises, the Program Director may adjust the schedule accordingly. Adjustments will be mandatory, not voluntary.
A Fellow will be assigned to the following rotation at all times:
Memorial Hermann Hospital Texas Medical Center Hospital (MHH):

1. **MHH IP** – GI Consult Rotation
2. **MHH Liver** – MHH Hepatology Consult Rotation
3. **MHH OP** - Rotation
   a. GI - Digestive Disease Center (DDC)
   b. Hepatology - Texas Liver Center (TLC)
4. **MHH PBS** - MHH Gastroenterology PancreaticoBiliary Service Rotation

HCHD: LBJ General Hospital (LBJ):

5. **LBJ IP Cons** – GI Consult Rotation
6. **LBJ OP Proc** – GI Endoscopic Rotation
7. **Research** – Clinical Research focused on Gastroenterology Rotation

UT M D Anderson Cancer Center (MDA)

8. **MDA IP** - GI Consult Rotation
9. **MDA OP**- GI Endoscopic Rotation

The Methodist Hospital (TMH)

10. **TMH** – Methodist: Gastroenterology Rotation

Rotations are monthly, beginning on the first day of each month and ending on the last day. Prior to beginning a new rotation, the fellow is responsible for contacting the fellow on the rotation to obtain patients list. Rotations are Monday to Friday, from 7:00 am to 5:00 pm. At times, due to urgent patient needs, the fellow will need to remain on the rotation past 5:00 pm. The fellow is expected to work the hours the faculty member deems appropriate, within the ACGME guidelines for duty hour violation and required conferences attendance.

Goals and Objectives: The goals and objectives for each rotation are attached. The fellow is expected to review the rotation’s goals and objectives with the attending faculty at the start of each rotation.

**NOTE:** If a fellow is unable to report for a scheduled rotation, the Program Director, Dr. DuPont and the attending scheduled for the rotation must be called. The Fellowship Coordinator, Phyllis Martin should be notified for record keeping.

Drew DuPont, MD, 713.617.1961 (pager)
Phyllis Martin 713.500.6672 (office)

**NIGHT/WEEKEND CALL**

Call is covered from the fellow’s home but call facilities, if needed, are available and located at Memorial Hermann Hospital,
While every effort is made to accommodate each fellow in the Program, it is very important to follow the yearly call schedule as closely as possible. Each change made affects several people. Therefore, we ask that, barring unforeseen emergencies, you work the schedule that is outlined for you at the beginning of the academic year. However, if an emergency arises, the Program Director may adjust the schedule accordingly; adjustments will be mandatory, not voluntary. The call schedule has been designed with consideration given to all 36 months of fellowship and approved by the Program Director. Since gastroenterology/hepatology is a consult service, the primary team is directly responsible for patients and the GI fellow a consultant.

The call weekend starts Friday at 5:00 pm and ends Monday at 7:00 am. Fellows are required to come to the hospital for any acute GI/hepatology complaint. When a consulting physician asks for a patient to be seen during the night and/or weekend hours, the on-call fellow should comply. The attending should be called regarding all new consults. If a patient requires an urgent endoscopy, the attending must be present.

GI fellows have night call during the week, starting on their assigned day at 5:00 pm and ending the next morning at 7:00 am.

**ON-CALL PROTOCOL**

All changes require a completed and approved “GI Fellowship Request for Schedule Change 2011-2012” to be submitted to the fellowship coordinator for approval from the Program Director at least 30 days prior to the change. Any change under 30 days must be considered urgent. The Fellow will not make changes without approval. In the event of an emergency, please contact the Fellowship Program Director and Fellowship Coordinator as soon as possible.

**WEEKEND CALL:**

Fellows cover MHH GI, MHH Hepatology, LBJ GI and MDACC call. Weekend MHH and LBJ rounds will be with the UT faculty. Weekend rounds at MDACC will be with the MDACC faculty.

**TEXAS LIVER CENTER PATIENTS:**

Established Texas Liver Center patients (Hepatology or Pre-Liver Transplant) will be admitted to Medicine or to the surgical transplant service. The Hepatology consult service will actively follow the patient while hospitalized.

**LBJ FELLOWS’ CONTINUITY CLINIC (1ST AND 2ND YEAR FELLOWS)**

LBJ Fellows’ Continuity Clinic is located at LBJ General Hospital in the medicine clinic and is held every Tuesday (excluding major holidays) afternoon with at least one faculty supervisor. Incoming PGY 4 fellows are assigned new patients their first Tuesday and continue to follow these patients for two years. Each clinic session the fellow may see 2 to 3 new and 4 to 5 returning patients. The fellow will have 2 extra slots for overbooking.

The fellow is introduced to the management of clinic patients with gastroenterological and liver diseases. During the training, the fellow will have the opportunity to assess a wide variety of acute and chronic gastroenterological and liver conditions. 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.

**LBJ CLINIC CLOSURE**

When a fellow requests a leave and has been given approval by the Program Director, a Harris County Hospital District (HCHD) Clinical Closure form must be completed and signed at least 30 days in advance by the Program Director. This approved form must be given to the Clinic Manager for approval and to move any scheduled patients and block the time. It is the responsibility of the GI fellow to make certain patients are cancelled for any leave request. The Fellowship Coordinator will assist by scanning the approved copy and emailing to the clinic manager but the responsibility of clinic closure is the fellows’. Especially, if the leave request is made some months in advance, it is the best policy to double check with the clinic about 6 weeks before the leave to make certain no patient(s) has been put on the day a clinic closure has been approved.
MHH Fellows’ Continuity Clinic: (3rd Year Fellows)

Fellows’ MHH Continuity Clinic is located in the MHH Clinics: Digestive Disease Center and Texas Liver Center with at least one faculty supervisor on Monday, Tuesday or Friday mornings. Third year fellows are assigned for six months to a GI clinic and six months in a hepatology clinic. Fellows are assigned new patients the first scheduled day and continue to follow these patients for six months. Each clinic session the fellow may see 2 to 3 new and 4 to 5 returning patients. The fellow will have 2 extra slots for overbooking.

The fellow is introduced to the management of clinic patients with gastroenterological and liver diseases. During the training, the fellow will have the opportunity to assess a wide variety of acute and chronic gastroenterological and liver conditions. 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.

2011-2012 MHH Fellows’ Continuity Clinic Schedule:

<table>
<thead>
<tr>
<th>Gastroenterology (GI) Clinic:</th>
<th>Digestive Disease Center:</th>
<th>Hepatology (HEP) Clinic:</th>
<th>Texas Liver Center:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DR. RYAN BARRIENTOS:</strong></td>
<td><strong>GI</strong> DDC <strong>HEP</strong> TLC</td>
<td><strong>HEP</strong> TLC <strong>GI</strong> DDC</td>
<td></td>
</tr>
<tr>
<td><strong>JUL - DEC 2011</strong></td>
<td><strong>TUESDAY AM'S WITH DR. WOLF</strong></td>
<td><strong>MONDAY AM'S WITH DR. MACHICAO</strong></td>
<td></td>
</tr>
<tr>
<td><strong>DR. JERRY MANK:</strong></td>
<td><strong>HEP</strong> TLC <strong>GI</strong> DDC</td>
<td><strong>GI</strong> DDC <strong>HEP</strong> TLC</td>
<td></td>
</tr>
<tr>
<td><strong>JUL - DEC 2011</strong></td>
<td><strong>MONDAYS AM'S WITH DR. MACHICAO</strong></td>
<td><strong>FRIDAYS AM'S WITH DR. DUPONT</strong></td>
<td></td>
</tr>
<tr>
<td><strong>DR. NOELLE O'Shea:</strong></td>
<td><strong>HEP</strong> TLC <strong>GI</strong> DDC</td>
<td><strong>GI</strong> DDC <strong>HEP</strong> TLC</td>
<td></td>
</tr>
<tr>
<td><strong>JUL - DEC 2011</strong></td>
<td><strong>TUESDAY AM'S WITH DR. FALLON</strong></td>
<td><strong>TUESDAY AM'S WITH DR. WOLF</strong></td>
<td></td>
</tr>
<tr>
<td><strong>DR. DAVE RICHARDS:</strong></td>
<td><strong>GI</strong> DDC <strong>HEP</strong> TLC</td>
<td><strong>GI</strong> DDC <strong>HEP</strong> TLC</td>
<td></td>
</tr>
<tr>
<td><strong>JUL - DEC 2011</strong></td>
<td><strong>FRIDAY AM'S WITH DR. DUPONT</strong></td>
<td><strong>TUESDAY AM'S WITH DR. FALLON</strong></td>
<td></td>
</tr>
</tbody>
</table>

MHH Clinic Closure

When a fellow requests a leave and has been given approval by the Program Director, a MHH Clinical Closure form must be completed and signed at least 30 days in advance by the Program Director. This approved form must be given to the Clinic Manager to move any scheduled patients and block the time. It is the responsibility of the GI fellow to make certain patients are cancelled for any leave request. The Fellowship Coordinator will assist by scanning the approved copy and emailing to the clinic manager but the responsibility of clinic closure is the fellows’. Especially, if the leave request is made some months in advance, it is the best policy to double check with the clinic about 6 weeks before the leave to make certain no patient(s) has been put on the day a clinic closure has been approved.
FELLOWSHIP CITIZENSHIP

EMPLOYMENT CONTRACT – UT MEDICAL FOUNDATION
GI fellows are appointed by The University of Texas System Medical Foundation ("Foundation"). No property interest in employment is created by such appointment. The Foundation reserve the right to change any requirements affecting the terms and conditions of employment of Fellow Physicians. Refer to the GME Handbook for Residents and Fellows for additional information. GI Fellows must be a United States citizen, permanent resident or hold a J1 Visa. H1B visas are not sponsored by this Institution for graduate medical education.

LEVEL OF TRAINING
The GI fellowship begins as Post Graduate Year ("PGY") 4 through 6. However, a physician with additional training post residency may be assigned to a higher PGY position. The incoming Fellow must have completed three years of Internal Medicine Residency in an ACGME accredited program and be board eligible or board certified by the American Board of Internal Medicine. Pay level for this GI Fellowship is for PGY 4 through 6. PGY level to which the GI fellow is assigned will be determined by the Program Director and Faculty Fellowship Training Committee in accordance with the fellow’s level of education, ability, and experience.

CURRICULUM VITAE
An updated CV (sent via email), using the UT CV format is due to the Fellowship Coordinator bi-annually, by the third week of July and last week of May. An up-dated version may be requested at various times during the fellowship year as requested by ACGME, UT GME office and/or Program Director. (See example in Appendix)

DRESS POLICY
As board certified (or eligible) internists and physicians in training in Gastroenterology, appropriate attire is required for all rotations. The initial appearance to patients and other healthcare professionals is important. A white UT-H lab coat with your name embroidered have been provided as well as free laundry services. It is expected for you to wear a clean lab coat. Business attire with the white lab coat is expected for all rotations, including Fellows’ Continuity Clinic. For men, a tie is essential part business attire. Appropriate business attire is expected for women physicians in training.

ENDOSCOPY POLICY
An attending must be present for all procedures. First-year fellows perform mainly EGD and colonoscopies. Only 3rd-year fellow or 2nd year fellow during last months of 2nd year perform ERCPs.

PROCEDURE LOG
Each fellow is required to maintain a procedure log, with totals, using the Microsoft excel format provided of all procedures performed. The excel format will be used for the entire 36 months of fellowship. The format should not be changed except by the program director. This log is to be provided to the Fellowship Coordinator at the end of every month. Vacation requests will not be approved and will not be taken unless the log is current. (See example in Appendix)

DUTY HOURS POLICY IN THE LEARNING AND WORKING ENVIRONMENT
BACKGROUND
Providing residents with a sound academic and clinical education must be carefully planned and balanced with concerns for patient safety and resident well-being. Learning objectives must be accomplished through an appropriate blend of supervised patient care responsibilities, clinical teaching, and didactic educational events. Each program must ensure that the learning objectives of the program are not compromised by excessive reliance on residents to fulfill non-physician service obligations. Didactic and clinical education must have priority in the allotment of residents' time and energies. Duty hour assignments must recognize that faculty and residents collectively have responsibility for the safety and welfare of patients. (UT Health – Medical School GMEC Policy Statement)

DUTY HOURS
DEFINITIONS:
1. Duty hours are defined as all clinical and academic activities related to the Fellowship program, i.e., patient care (both inpatient and outpatient), administrative duties related to patient care, the provision for transfer of patient care, time spent in house during call activities, and scheduled academic activities such as conferences. Duty hours do not include reading and preparation time spent away from the duty site.
2. At-home call (pager call) is defined as call taken from outside the assigned institution. At-Home Call may not be scheduled on the resident’s one free day per week (averaged over four weeks). The frequency of at-home call is not subject to the every third night limitation, but must satisfy the requirement for 1 day in 7 free of duty when...
averaged over a 4-week period. At-home call must not be so frequent or taxing as to preclude rest or reasonable personal time for each resident. The program director and the faculty must monitor the demands of at-home call in their programs and make scheduling adjustments as necessary to mitigate excessive service demands and/or fatigue.

3. **80 hour per week limit** includes time spent in the hospital (exclusive of travel time) by residents. Residents are permitted to return to the hospital while on at-home call to care for new or established patients. Each episode of this type of care, while it must be included in the 80-hour weekly maximum, will not initiate a new “off-duty period”.

4. **One day-off-in-seven** is defined as one continuous 24-hour period free from all clinical, educational, and administrative activities. Residents must be scheduled for a minimum of one day free of duty every week when averaged over 4-weeks. At-home call cannot be assigned on these free days.

5. **Off-duty period** for residents in the final years of education [as defined by the Review Committee] must be prepared to enter the unsupervised practice of medicine and care for patients over irregular or extended periods. This preparation must occur within the context of the 80-hour, maximum duty period length, and one-day-off-in-seven standards. While it is desirable that residents in their final years of education have eight hours free of duty between scheduled duty periods, there may be circumstances [as defined by the Review Committee] when these residents must stay on duty to care for their patients or return to the hospital with fewer than eight hours free of duty.

**POLICY:**

1. Duty hours are limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities.

2. Fellows are provided with 1 day in 7 free from all educational and clinical responsibilities, averaged over a 4-week period, inclusive of call. One day is defined as one continuous 24-hour period free from all clinical, educational, and administrative activities.

3. Routine daily duty activities, excluding emergencies, will be completed in a timely fashion to provide at least a 10 hour time period between all daily duty periods to allow for adequate time for rest and personal activities.

There is no in-house call in the Gastroenterology Fellowship. The objective of on-call activities is to provide Fellows with continuity of patient care experiences throughout a 24-hour period. However, at-home call will be monitored and adjusted as to provide rest and reasonable personal time for each fellow. Fellows taking at-home call will be provided with 1 day in 7 completely free from all educational and clinical responsibilities, averaged over a 4-week period. The program director and the faculty will monitor the demands of at-home call in their programs and make scheduling adjustments as necessary to mitigate excessive service demands and/or fatigue.

**Oversight:**

The 2011-2012 Gastroenterology Fellowship Handbook contains written policies and procedures consistent with the Institutional and Program Requirements for resident duty hours and the working environment. Handbooks are distributed to the fellows and the faculty. Monitoring of duty hours will be performed monthly to ensure an appropriate balance between education and service.

Faculty and fellows are educated to recognize the signs of fatigue and sleep deprivation. They should adopt and apply policies to prevent and counteract potential negative effects.

Faculty and other rotating residents will provide back-up support systems when patient care responsibilities are unusually difficult or prolonged, or if unexpected circumstances create fellow fatigue sufficient to jeopardize patient care.

*(Adopted by the Educational Committee for the Gastroenterology Fellowship Program on 06/10/2011 – Andrew W. DuPont, MD; David S. Wolf, MD and Michael B. Fallon, MD)*

**Supervision of Fellows**

All patient care is supervised by qualified faculty and documented in the clinical record.

1. Inpatient Consultation
   a. Fellows interview and assess patients independently with indirect supervision from attending physician on service. Attending physician can be contacted via phone or pager at any time and will be available for direct supervision in a timely manner.

   b. Direct supervision, by attending faculty, of patient care occurs during daily attending rounds.
2. Outpatient Clinics
   a. For outpatient gastroenterology clinics, hepatology clinics, continuity clinics and GI procedures at least one attending physician is physically present for direct supervision of patient care.

   b. The supervising physician is available to provide review of procedures/encounters with feedback provided after care is delivered.

   (Adopted by the Educational Committee for the Gastroenterology Fellowship Program on 06/10/2011 – Andrew W. DuPont, MD; David S. Wolf, MD and Michael B. Fallon, MD)

**MOONLIGHTING**

The Division of Gastroenterology forbids moonlighting without approval of Dr. DuPont. Each Fellow must sign a moonlighting statement annually. The ACGME set forth specific requirements and guidelines for moonlighting. Those requirements, along with the UTMSH policy are listed with attachments. Fellows will not be required to engage in professional activities outside the educational program (moonlighting). Under Texas law, professional activities involving the practice of medicine outside the program are available only to a physician-in-training who holds a medical license from the Texas Medical Board. An institutional permit or physician-in-training permit does not entitle the Fellow to assume professional activities outside the educational program. The listed fringe benefits, including coverage for any injury or disability (I.H.8) incurred, do not apply during such outside or unassigned activity. Professional Liability Insurance (I.H.9) will not cover the Fellow for any liabilities incurred in such professional activity. All moonlighting activities require a prospective written statement of approval from the Program Director, for inclusion in the resident’s file. The Program may revoke approval or initiate corrective action in the event outside professional activity interferes with the ability of the Fellow to fulfill satisfactorily the obligations of the Program. Any hours that a Fellow works for compensation at the sponsoring institution or any of the sponsoring institution’s primary clinical sites (internal moonlighting) must be considered part of the 80-hour weekly limit on duty hours.

**GI Fellows’ Research**

Fellows are expected to engage in research and scholarly activities. During their first year, fellows are expected to select a specific project and mentor. Research efforts will be reviewed during the year with the Fellowship Director. The development of a specific project is integral to the fellowship program. Fellows have established an impressive track record in presenting at local and national meetings.

**Rotation Goals and Objectives**

Each Fellow is required to review Goals and Objectives for every rotation. Goals and Objectives should be discussed with the attending faculty at the beginning of each rotation. Goal and Objectives for each rotation are written in detail in a later chapter. This same material is also available for your use on the Gastroenterology Fellowship web page.

**Evaluations - GMEIS**

GMEIS (Graduate Medical Education Information System), a web based evaluation system used for fellowship evaluations. GMEIS evaluations are due at the end of each month. At the end of each rotation, the Attending is required to sit down with the fellow and review his/her performance during the month and complete an evaluation. The Fellow is responsible for arranging this meeting. At least twice a year, the Program Director meets formally with each Fellow to review his/her progress. The Program Director summarizes these discussions in a letter to each fellow.

**Benefits**

Stipends and benefits will be paid to the fellow by the Foundation. Each hospital serves as guarantor of the stipends and benefits for the number of positions it agrees to support. Stipends will be appropriate to the level of training and responsibility of the fellow. Attainment of each additional level of training should merit an increase in the stipend. All fellows at any given level of training will comparably compensated.

**Payday**

Payday is the last working day of the month. All checks are direct deposit.

http://utsmf.hsc.uth.tmc.edu/payroll.html

**Vacation/Educational & Other Leave Requests**

Fellows are entitled to three calendar weeks (15 work days) of vacation per year. A maximum of two weeks at one time
may be requested during out-patient rotations. A Request for Leave form must be completed and approved by the Program Director 30 days prior to leave or, ideally, at the beginning of the academic year. Blank vacation request forms are posted on the GI website, emailed and are also available in the coordinator’s office. If your leave time includes cancelling your Continuity Clinic a clinic closure form must also be submitted, (see above Continuity Overview.) Your procedure log must be up-to-date and received by the Fellowship Coordinator prior to your leave. Any conference presentations scheduled must be covered. Other than for GI meetings and with approval by the Program Director, no more than two fellows may take time leave at one time. June vacation time is limited to no more than two weeks. Any unused vacation at the end of a fellowship year (June 30) will not carry forward to the next year.

**Paid Sick Leave**

Paid sick leave accrues at a rate of eight hours each month and accumulates to a maximum of 30 days. Paid sick leave carries forward from year to year; however, unused sick leave remaining as of the separation date from the Program will be forfeited without compensation. In the event an illness exceeds accumulated paid sick leave and vacation time, a leave of absence without pay may be granted (see section II.H.7). Leave of Absence (“LOA”), Including Extended LOA, Military Leave, Leave Without Pay (“LWOP”) and Family Medical Leave (“FMLA”) All requests for LOA must be approved by the Program Director in accordance with applicable state and federal laws and specialty board and accreditation requirements. LOA may be comprised of paid leave (including both paid sick leave and vacation) and/or leave without pay (“LWOP”). When LOA is requested for a medical reason (including pregnancy), the eligible Fellow must exhaust all accumulated paid sick leave and accumulated vacation prior to beginning any LWOP.

**Funeral Leave**

With the prior approval of the Program Director, a fellow shall be granted up to three days of paid leave to attend the funeral of a family member. Family member is defined as the fellow’s spouse or the fellow’s or spouse’s parents, children, brothers, sisters, grandparents or grandchildren. Funeral leave shall be granted only for scheduled work days.

**Urgent Leave Coverage**

When an emergency occurs, making it impossible for the fellow to report to a rotation or to take call the fellow must notify the Program Director to make arrangement for coverage. If the fellow cannot find another fellow to “switch”, the Program Director will adjust the call schedule accordingly. Adjustments made by the Program Director will be mandatory, not voluntary.

**Holidays**

For the academic year 2011-2012, UTHSCH is observing the following holidays. For a “full closure” holiday, the GI academic office and medical school are closed. For “skeleton crew” holidays the academic office may have limited staff. The Answering Service will always answer all calls to the academic office during times when the office is closed. **Note:** Fellows are not subject to the UTHSC-H holidays and IP rotations do not observe holidays. Out-patient rotations are determined by the Faculty Attending(s) and clinic schedule(s). You must check with the attending to determine if the clinic will be closed during any holiday period.

- Independence Day – Monday, July 4, 2011 (“full closure” holiday)
- Labor Day – Monday, September 5, 2011 (“full closure” holiday)
- Thanksgiving – Thursday and Friday, November 24-25, 2011 (“full closure” holiday)
- December Holiday - Monday, December 26, 2011 (“full closure” holidays),
- December Holidays - Tuesday through Friday, December 27-30, 2011 (“skeleton crew” holiday)
- New Year’s Holiday Monday, January 2, 2012 (“full closure” holiday)
- Martin Luther King Day - Monday, January 16, 2012 (“full closure” holiday)
- Presidents’ Day Holiday – Monday, February 20, 2012 (“full closure” holiday)

**USA Mobility Pagers**

Pagers are provided by the GME office and batteries are provided by the GI division office. A Clinical Fellow Pager Assignment Sheet must be sign each year indicating you have the assigned pager. **If the pager is lost or damaged, you must pay the replacement cost of $200.** If the pager is malfunctioning, a replacement pager may be picked up from the Memorial Hermann communication operators located at MHH Robertson (located behind Cafe Hermann). The pagers have both numeric and text abilities.

You may get a strange five-digit number on your beeper, e.g. “43409”. You will get to know the numbers but for starters, the first number usually represents the following:

- 4xxxx = 713-704-xxxx (MHH) or 6xxxx = 713-566-xxxx (LBJ)
- 2xxxx = 713-792-xxxx (MDA) 4xxxx = 713-794-xxxx (UT MDA)
**ID BADGES**
You will have four ID badges: **UTHSC** (will double for MHH), **MDA, LBJ** and **TMH**. You must have your ID badges prior to starting rotations. PGY stickers, to be placed on the UTHSC badge, are given annually by the GME office. For MHH after-hours access, and access to the Transplant ICU on the 3rd floor of Hermann Pavilion, you will need to take your UT badge the Security Office at MHH, next to the ER, to get your badge programmed. For lost or damaged UT ID badge, you must go to University Center Tower (UCT), 7000 Fannin, 22nd floor (phone: 713-500-3088). Replacement fee is $10.

**MEALS**
All hospitals have dining facilities open daily for breakfast, lunch, and dinner. A discount is given with an ID badge.

**White COATS**
Lab coat(s) will be provided to each first year fellow. Fellows will receive one new coat per year thereafter. Coats may be dropped off and picked up to be laundered in the mailroom, MSB 4.235. Laundry is delivered and picked up every Thursday and paid for by the division.

**EMAIL**
Upon meeting all requirements, completing all paperwork relevant to appointment, and signing the Information Resources Security: Acknowledgment Form, fellows receive a UTHSC-H e-mail address and network access for use during the duration of their appointment. Fellows are subject to the terms of UTHSC-H HOOP Policy Section 17 [http://legal.uth.tmc.edu/hoop/complete_toc.html#chap17](http://legal.uth.tmc.edu/hoop/complete_toc.html#chap17). All use of the UTHSC-H network, including internet access, is a privilege that must not be abused. Any prohibited or inappropriate use of the network and the e-mail system may result in termination of such privilege and may be grounds for other adverse action.

**Why use UT e-mail instead of a personal e-mail?** This is the only way UT will communicate with you! All communication from the Program Director, Fellowship Coordinator, GI division office, as well as special UT announcements, communication from the GME office, newsletters, etc., are sent to the assigned UT email address.

**How to use your UT e-mail** Call the UT Help Desk at **713-500-4848** to get your e-mail address and set your password. To access your email go to the mail site: [http://webmail.uth.tmc.edu](http://webmail.uth.tmc.edu) to test your password. UT Medical School Home Page: [http://med.uth.tmc.edu/](http://med.uth.tmc.edu/). Call the UT Help Desk at 713-500-4848 if need any assistance.

**DIVISION OFFICE**
Normal office hours for the GI Division staff are Monday to Friday from 7:30 am to 4:30 pm. The main telephone number is **713.500.6677**. It is answered 24/7 by the staff and/or the Answering Service. A fax machine is located in the division’s mailroom, MSB 4.234. The fax number is **713.500.6699**.

**FELLOWS’ OFFICE**
The Fellows’ Office, MSB 4.232, is equipped with a computer, scanner, media equipment, conference table, white board, and library. Printers are located in both the mailroom (MSB 4.235) A key is given to each fellow that opens the fellows’ office, mailroom and reception office to allow access to both printers and the fax machine. This office is for the fellows’ use and should be utilized.

**MAIL**
A mailbox is located in the GI division mailroom/storage/kitchen (MSB 4.235). Please check it periodically, and please do not use the mailbox for storage. Your mailing address is:

- The University of Texas Medical School-Houston
- Division of Gastroenterology, Hepatology and Nutrition
- 6431 Fannin, MSB 4.234
- Houston, TX 77030

**LIBRARY**
The Houston Academy of Medicine - Texas Medical Center Library is located in the Jesse Jones Library Building at 1133 John Freeman Boulevard. Webber Plaza is between the Medical School – and the library. Additional library information may be found on the website: [http://resource.library.tmc.edu/about/welcome.cfm](http://resource.library.tmc.edu/about/welcome.cfm)

**PARKING**
Parking is available in the UT Professional Building Garage for a reduced rate and is payroll deducted. The UTHSC badge is programmed for parking. There are three MDA parking cards for Garage 10. These are passed from one fellow to the next
to be used while on the MDA IP and MDA OP rotations and call. There is no charge for LBJ parking.

**BOOKSTORES**
Medical School Book store is located in the medical school basement near the green elevators.

**TRAVEL**
The opportunity to travel is primarily for fellows presenting work at national meetings. The opportunity to travel to other meetings may be offered depending on seniority, interest, and recent travel. All travel arrangements must be in compliance with UTH regulations. Discuss any travel request with the Program Director and Fellowship Coordinator early.

**PERSONAL OR PROFESSIONAL CONCERNS WORK/LIFE PROGRAM –** *CREATING BALANCE IN YOUR LIFE*
713-500-3013  7000 Fannin, Suite 1670  www.utworklife.org
The University of Texas Health Science Center-Houston recognizes that the competing demands of work and life may affect productivity, learning and health, and has therefore established a Work/Life Program to help residents/fellows balance the competing demands of their work and personal lives. The Work/Life Program promotes flexible practices, programs and a supportive culture to help reconcile these needs and to help ensure that the Institution’s missions of education, research and care are productively and humanely accomplished.

**UTHSC-H RECREATION CENTER - 713-500-8420** http://ae.uth.tmc.edu/recreat/Mem_Facilities.htm
The UTHSC Recreation Center offers a wide variety of quality facilities, equipment, and programs designed for health and fitness, as well as for fun and relaxation. Membership is open to all UT fellows at a reduced rate:
- Fellow- Individual or Spouse Membership Fee: $27/monthly; $69/quarterly or $260/yearly
Monday - Friday: 6:00 am – 10:00 p.m. Saturday: 8:00 am – 8:00 p.m. Sunday: 10:00 am – 8:00 p.m.
GOALS AND OBJECTIVES
Goals and Objectives

Gastroenterology Consult Rotation

Memorial Hermann Hospital Texas Medical Center

Curriculum for Year I, II & III Fellows

Educational Purpose:
The Gastroenterology Consult Rotation Memorial Hermann Hospital TMC (MHH) introduces the fellow to inpatient hospital management of patients with gastrointestinal diseases. During this period, the fellow will have the opportunity to assess a wide variety of acute and chronic gastrointestinal conditions. The fellow will participate in increasing levels of management/treatment involvement with patient needs and procedures, depending on the fellow’s level of experience. The fellow will be expected to formulate the differential diagnosis, institute diagnostic studies and recommend therapy. The amount of learning obtained from this rotation is directly proportional to the amount of time spent in the evaluation of the patients.

Objectives:
Fellows will learn all aspects of inpatient gastrointestinal care and will display all general competencies during this experience. 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 Gastroenterology Consult Service at MHH.

Year 1 Fellow:
A Year 1 fellow should be able to assess new patient problems, formulate and execute a treatment plan with guidance and teach basic gastroenterology skills to medical students and other trainees. Year 1 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 during the patient’s hospital stay. With attending consultation, formulate and execute an impression and a list of recommendations for the primary service. 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 gastroenterology 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.
- Develop expertise in the diagnosis and management of acute and chronic inpatient gastrointestinal diseases including:
  - Upper & lower GI bleeding
  - Peptic ulcer disease
  - GI infections
  - Ischemic colitis.
- Learn to provide inpatient care that is safe and compassionate and to develop the ability to thoroughly and clearly educate the inpatient in the relevant areas of disease prevention, detection, progression and therapy to promote gastrointestinal health.

Medical Knowledge Objectives:
- Attend core conferences and teaching rounds to learn the pathophysiology, epidemiology, disease management and procedure and medicine management skills for common and uncommon inpatient gastrointestinal diseases including:
  - Upper & lower GI bleeding
  - Peptic ulcer disease
  - GI infections
  - Ischemic colitis.
- 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.

By end of Year I, pass the Internal Medicine Board Examination.

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.

**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 gastrointestinal literature for the management of GI patients.
- Learn the best practice patterns to facilitate gastroenterology 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, 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, including Program Director meetings.

**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 gastroenterology care and overall system activities.
- Learn proper documentation and billing 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 patients 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 gastroenterology procedures:
  - Coloscopy
    - 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.
- Develop clear expertise in the diagnosis and management of acute and chronic inpatient gastrointestinal diseases including:
  - Neuroendocrine diagnosis
  - Intestinal/colonic pseudobstruction
  - Secretory diarrheal states
  - Idiopathic abdominal pain
  - Upper & lower GI bleeding
Present cases succinctly in a direct manner.

- Know the GI Hospital 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 inpatient care that is safe and compassionate and develop the ability to thoroughly and clearly educate the inpatient 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 inpatient gastrointestinal diseases including:
  - Neuroendocrine diagnosis
  - Intestinal/colonic pseudobstruction
  - Secretory diarrheal states
  - Idiopathic abdominal pain
  - Upper & lower GI bleeding
  - Peptic ulcer disease
  - Inflammatory bowel disease
  - GI infections
  - Pancreatitis
  - Ischemic colitis
- Organize the team’s performance at teaching rounds.
- Read textbook and pertinent literature materials concerning problems encountered.
- Teach medical students and other trainees about GI 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 gastrointestinal literature for the management of GI patients.
- Know the best practice patterns to facilitate gastroenterology 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 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 Director meetings.
Systems-Based Practice Objectives:
- Attend conferences concerning healthcare system patient management and components of systems of healthcare.
- Understand and practice proper documentation and billing skills to practice cost-effective care.
- Assist other trainees in the utilization of appropriate healthcare resources for the best care of the GI Hospital 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).

YEARS 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 GI Hospital Consult 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 gastroenterology 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.
  - 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.
- Secure expertise in the diagnosis and management of acute and chronic inpatient gastrointestinal diseases including:
  - Neuroendocrine diagnosis
  - Intestinal/colonic pseudobstruction
  - Secretory diarrheal states
  - Idiopathic abdominal pain
  - Upper & lower GI bleeding
  - Peptic ulcer disease
  - Inflammatory bowel disease
  - GI infections
  - Pancreatitis
  - Ischemic colitis
- Provide inpatient care that is safe and compassionate with the leadership ability to thoroughly and clearly educate the inpatient 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 and hepatology problems encountered.
- 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 inpatient gastrointestinal diseases including:
  - Neuroendocrine diagnosis
  - Intestinal/colonic pseudobstruction
  - Secretory diarrheal states
  - Idiopathic abdominal pain
  - Upper & lower GI bleeding
  - Peptic ulcer disease
  - Inflammatory bowel disease
  - GI infections
  - Pancreatitis
  - Ischemic colitis
- 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.

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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 gastrointestinal literature for the management of GI patients, 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 gastroenterology 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 Year I fellows in professional conduct.
- Assist in formal teaching exercises as requested.
- Assert leadership in program planning, including fellow participation in the annual Faculty/Fellow Meeting, Fellow Curriculum Committee and Conference Planning Committees.

**Systems-Based Practice Objectives:**
- Attend conferences concerning healthcare system patient management and components of systems of healthcare.
- 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 GI Hospital Consult Service during all three fellowship years. One fellow is assigned to the GI Hospital Consult 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.

The GI Hospital Consult Service experience will prepare the fellow to evaluate and manage acute and chronic gastrointestinal illnesses that will be encountered in the fellow’s future practice. This rotation will expose the fellow to a wide variety of acute abdominal inflammatory processes, major gastrointestinal hemorrhages, and a wide variety of gastrointestinal problems.

Fellows assigned to this service will evaluate all new consults at Memorial Hermann Hospital Texas Medical Center (MHH) and will be assigned to a continuity clinic one-half day per week. They will present new consults to the attending by the following day for routine consults and as soon as possible for emergencies. Fellows will evaluate each patient and will make initial recommendations regarding diagnostic tests and treatments.

They will make arrangements for studies such as endoscopy, motility tests, biopsies, etc. 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.

**Disease Mix:**
Fellows see a complete mix of gastrointestinal diseases and conditions at the GI Hospital Consult Service’s teaching hospital. MHH has a substantial primary care basis, which provides the entire spectrum of internal medicine diagnoses and gastrointestinal care.

Diagnoses range from pancreatitis, inflammatory bowel disease, and functional GI motility and pain disorders to primary and secondary gastrointestinal malignancies, and there is an appropriate concentration of common gastrointestinal diseases such as peptic ulcer disease, gastroesophageal reflux disease and gastrointestinal infections.
Patient Characteristics:
Memorial Hermann Hospital TMC 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 (Memorial Hermann Life Flight is a CAMTS accredited, critical care, air medical transport service that serves the community within a 150-mile radius of the Texas Medical Center with helicopters and worldwide using fixed-wing transport), patients are seen in both acute status and in diagnostic dilemma status, with both common and uncommon disorders.

Types of Clinical Encounters – Attending Supervision:
Encounters are inpatient in nature during the GI Hospital Consult Service. Fellows provide 24/7 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 at MHH seven days per week as well as supervision is available all night. The attending has ultimate responsibility for patients.

Procedures:
During the GI Hospital Consult Service, emergency procedures (e.g. for gastrointestinal bleeding) are performed 24/7 within duty hour limits by the fellow with the attending. Non-emergent 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 all GI Hospital Consult Service rotations 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 the rotation. These evaluations are reflective of the program’s curriculum requirements. Attendings evaluate fellows, and the fellows evaluate the attending as well. Evaluations include:
  - 360-degree (attending, nurse, nurse practitioner, staff/clerical, etc.);
  - Direct observation
  - Peer-reviewed; and
  - Patient.

  Evaluation summaries become part of the fellows’ and attendings’ promotional documents.
- The fellow 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) must be organized to review program goals and objectives and the effectiveness with which they are achieved. This group must conduct 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 individually twice per year.

Bibliography:
- Resource Documents
  - PubMed
  - Textbook of Gastroenterology – Yamada, et.al.
  - Gastrointestinal Diseases: Pathophysiology Diagnosis Management – Sleisenger & Fordtran.
  - Major Gastroenterology journals online and in the program’s fellow library including Gastroenterology, American Journal of Gastroenterology, Gut, 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:
  - Textbook of Gastroenterology – Yamada, et.al.
  - Gastrointestinal Diseases: Pathophysiology Diagnosis Management – Sleisenger & Fordtran.

Competencies-at-a-Glance

GI Hospital Consult Service

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Patient Care
- Work Rounds
- Teaching Rounds
- Conferences
- 360-global evaluations
- GTE in-service exam
- Direct Observation

Medical Knowledge
- Work Rounds
- Teaching Rounds
- Conferences
- 360-global evaluations
- GTE in-service exam

Practice-Based Learning
- Quarterly M&M Conference
- Work Rounds
- Direct Observation
- 360-global evaluations

Interpersonal Skills
- Work Rounds
- 360-global evaluations

Professionalism
- Work Rounds
- Conferences
- 360-global evaluations

Systems-Based Practice
- Committee Participation
- Grand Rounds (GI & Medical)
- Conferences
- 360-global evaluations
- documentation

The GI Hospital Consult Service is the core fellow rotation related to 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.

Revised:
June 2011/ DuPont

Hepatology Consultative Rotation
Memorial Hermann Hospital Texas Medical Center
Curriculum for PGY 4, 5 and 6

Educational Purpose:
The Hepatology Consultative Rotation introduces the fellow to inpatient management of patients with liver diseases. During this period, the fellow will have the opportunity to assess a wide variety of acute and chronic hepatology conditions. The fellow will participate in increasing levels of management/ treatment involvement with patient needs and procedures depending on the fellow’s level of experience. The fellow will be expected to formulate the differential diagnosis, institute diagnostic studies and recommend therapy. The amount of learning obtained from this rotation is directly proportional to the amount of time spent in the evaluation of the patients.
Objectives:
Fellows will learn all aspects of inpatient liver disease care and will display all general competencies during this experience. 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 Hepatology Consultative Service:

PGY 4 Fellow:

Goal: A Year I fellow should be able to assess new patient problems, formulate and execute a treatment plan with guidance and teach basic hepatology and 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 during the patient’s hospital stay. With attending consultation, formulate and execute an impression and a list of recommendations for the primary service. 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 (see practicum):
  - 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.
  - Liver Biopsies:
    - Fellows must have formal instruction and clinical expertise and must demonstrate competence in the performance of percutaneous liver biopsies.
  - Abdominal Paracentesis:
    - Fellows must have formal instruction and clinical expertise, and must demonstrate competence in the performance of diagnostic and therapeutic paracentesis
- Fellows must have formal instruction and clinical experience and demonstrate competence in:
  - The prevention of acute and chronic endstage liver disease
  - The evaluation and management of inpatients with acute and chronic endstage liver disease
  - The management of fulminant liver failure
  - The psychosocial evaluation of all candidates, in particular those with a history of substance abuse
  - Drug hepatotoxicity and the interaction of drugs with the liver
  - Diagnosis and management of autoimmune hepatitis
  - Diagnosis and management of cholestatic liver diseases – primary biliary cirrhosis (PBC) and primary sclerosing cholangitis (PSC)
- Learn to provide inpatient care that is safe and compassionate and to develop the ability to thoroughly and clearly educate the inpatient in the relevant areas of disease prevention, detection, progression and therapy to promote liver health.

Medical Knowledge Objectives:
- Attend core conferences and teaching rounds — especially all Hepatology Conferences (see attached schedule) — to learn the pathophysiology, epidemiology, disease management and procedure and medicine management skills for common and uncommon inpatient liver diseases including:
  - The prevention of acute and chronic endstage liver disease
  - The evaluation and management of inpatients with acute and chronic endstage liver disease
  - The management of fulminant liver failure
  - The psychosocial evaluation of all candidates, in particular those with a history of substance abuse
  - Drug hepatotoxicity and the interaction of drugs with the liver
  - Diagnosis and management of autoimmune hepatitis
  - Diagnosis and management of cholestatic liver diseases – primary biliary cirrhosis (PBC) and primary sclerosing cholangitis (PSC)
- 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 59.8 on the liver section of the in-service Gastroenterology Training Examination (GTE) exam. This score is the national average for the liver section 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 hepatology literature for the management of liver disease patients.
- Learn the best practice patterns to facilitate liver 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 hepatology care and overall system activities.
- Learn proper documentation and billing 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).

PGY 5 Fellow:

Goal: A Year II fellow should learn to assess and care for a larger volume of patients 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 gastroenterology/hepatology procedures (see practicum checklist):
  - 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.
  - Liver Biopsies:
    - Fellows must have formal instruction and clinical expertise, and must demonstrate competence in the performance of percutaneous liver biopsies.
  - Abdominal Paracentesis:
    - Fellows must have formal instruction and clinical experience and demonstrate competence in:
The comprehensive management of patients who are high on the transplant list in the intensive care setting with complications of end-stage liver disease including: refractory ascites, hepatic hydrothorax; hepatorenal syndrome, hepatopulmonary and portal pulmonary syndromes, and refractory portal hypertensive bleeding

- The management of chronic viral hepatitis in the pre-transplantation, peri-transplantation, and post-transplantation settings
- Nutritional support of patients with chronic liver disease
- The use of interventional radiology in the diagnosis and management of portal hypertension, as well as biliary and vascular complications

- Present cases succinctly in a direct manner.
- Know the Hepatology Consultative 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 inpatient care that is safe and compassionate and develop the ability to thoroughly and clearly educate the inpatient 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 inpatient liver diseases including:
  - The comprehensive management of patients who are high on the transplant list in the intensive care setting with complications of end-stage liver disease including: refractory ascites, hepatic hydrothorax; hepatorenal syndrome, hepatopulmonary and portal pulmonary syndromes, and refractory portal hypertensive bleeding
  - The management of chronic viral hepatitis in the pre-transplantation, peri-transplantation, and post-transplantation settings
  - Nutritional support of patients with chronic liver disease
  - The use of interventional radiology in the diagnosis and management of portal hypertension, as well as biliary and vascular complications

- Organize the team’s performance at teaching rounds.
- Read textbook and pertinent literature materials concerning problems encountered.
- Teach medical students and other trainees about liver disease states and patient management.
- Achieve an average percentile score of at least 65.7 on the liver section of the in-service Gastroenterology Training Examination (GTE) exam. This score is the national exam average for liver diseases 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 hepatology literature for the management of liver disease patients.
- Know the best practice patterns to facilitate hepatology 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 hepatology 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 practice proper documentation and billing skills to practice cost-effective care.
- Assist other trainees in the utilization of appropriate healthcare resources for the best care of the Hepatology 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).

PGY 6 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 Hepatology Consultative 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.
  - 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.
  - Liver Biopsies
    - Fellows must have formal instruction and clinical expertise and must demonstrate competence in the performance of percutaneous liver biopsies.
  - Abdominal Paracentesis
    - Fellows must have formal instruction and clinical expertise and must demonstrate competence in the performance of diagnostic and therapeutic paracentesis.
- Fellows must have formal instruction and clinical experience and demonstrate competence in:
  - The diagnosis and management of hepatocellular carcinoma and cholangiocarcinoma including transplantation, non-transplantation, and non-surgical approaches
  - Transplant immunology including blood group matching, histocompatibility, tissue typing, and infectious and malignant complications of immunosuppression
  - Ethical considerations relating to liver transplant donors, including questions related to living donors, non-heart beating donors, criteria for brain death, and appropriate recipients
  - Acquiring a current working knowledge of the organizational and logistic aspects of liver transplantation including the role of nurse coordinators and other support staff (e.g., social work), organ procurement, and UNOS policies including those regarding organ allocation.
- Provide inpatient care that is safe and compassionate with the leadership ability to thoroughly and clearly educate the inpatient and all other trainees regarding relevant areas of disease prevention, detection, progression and therapy to promote liver health.

Medical Knowledge Objectives:
- Access and critique the medical literature regarding hepatology and gastroenterology problems encountered.
- 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 inpatient liver diseases including
- Fellows must have formal instruction and clinical experience and demonstrate competence in:
  - The diagnosis and management of hepatocellular carcinoma and cholangiocarcinoma including transplantation, non-transplantation, and non-surgical approaches
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  - Ethical considerations relating to liver transplant donors, including questions related to living donors, non-heart beating donors, criteria for brain death, and appropriate recipients
Acquiring a current working knowledge of the organizational and logistic aspects of liver transplantation including the role of nurse coordinators and other support staff (e.g., social work), organ procurement, and UNOS policies including those regarding organ allocation.

- 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 70.6 on the liver section of the in-service Gastroenterology Training Examination (GTE) exam. This score is the national exam average for the liver section 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 hepatology literature for the management of liver disease patients, 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 liver 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 hepatology 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.
- Use and train others on the program's e-portfolio system for personal documentation management, communication with mentors and other collaborators and related fellowship program documentation.
- 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 Hepatology Consultative Service during all three fellowship years. One fellow is assigned to the Hepatology Consultative 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.

The Hepatology Consultative Service experience will prepare the fellow to evaluate and manage acute and chronic liver diseases that will be encountered in the fellow's future practice. This rotation will expose the fellow to a wide variety of acute and chronic liver diseases. Fellows will learn to incorporate and interact with a multidisciplinary team approach with the Liver Transplant Program at the Texas Liver Center (TLC). Fellows will learn the appropriate use of interventional radiology facilities capable of performing Transjugular Intrahepatic Portal Systemic Shunts (TIPS) and balloon angioplasty and will learn to share patient co-management responsibilities with transplant surgeons from the preoperative phase to the outpatient period as well as learn to interact with an experienced liver transplant pathologist.

Fellows assigned to this service will evaluate all new consults at MHH and will be assigned to a continuity clinic one-half day per week. They will present new consults to the attending by the following day for routine consults and as soon as possible for emergencies. 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, liver biopsies (percutaneous and transjugular), abdominal paracenteses and thoracenteses, percutaneous
transhepatic cholangiograms (PTC), etc. 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 liver diseases and conditions at the Hepatology Consultative Service’s teaching hospitals. MHH and the Texas Liver Center (TLC) have a substantial primary care basis, which provides the entire spectrum of internal medicine diagnoses and gastroenterology/hepatology care.

Diagnoses range from acute viral hepatitis (A/B), drug induced liver injury, fulminant liver failure, chronic viral hepatitis post transplantation, complicated hepatocellular carcinoma and cholangiocarcinoma. There is also an appropriate concentration of common liver diseases such as evaluation of abnormal liver function tests, management of ascites including refractory ascites, hepatic hydrothorax, hepatorenal syndrome, and portal hypertensive bleeding, diagnosis and management of autoimmune liver diseases and cholestatic liver diseases (PBC and PSC), metabolic liver diseases (Non-Alcoholic Fatty Liver Disease [NAFLD]), Inherited Liver Diseases such as Genetic Hemochromatosis; Wilson’s Disease and Alpha One Antitrypsin Deficiency.

Patient Characteristics:
MHH and Texas Liver Center (TLC) offer 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 hospital’s constantly active referrals (complete with helicopter and fixed-wing transport 24/7), patients are seen in both acute status and in diagnostic dilemma status, with both common and uncommon disorders.

Types of Clinical Encounters – Attending Supervision:
Encounters are inpatient in nature during the Hepatology Consultative Service. Fellows provide 24/7 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, and in-house supervision is available all night as well. The attending has ultimate responsibility for patients.

Evaluation:
Fellows are evaluated during all Hepatology Consultative Service rotations and are expected to participate in the evaluation of other fellows as well. This occurs in the following forms:

- Detailed, automated evaluations using the myevaluations.com 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. Evaluations include:
  - 360-degree (attending, nurse, nurse practitioner, staff/clerical, etc.);
  - Direct observation;
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- 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.
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  - Gastrointestinal Disease: Pathophysiology Diagnosis Management – Sleisenger & Fordtran.
  - Diseases of the Liver - Leon Schiff and Eugene Schiff
  - Zakim and Boyer’s Hepatology: A Textbook of Liver Disease
- Major Gastroenterology/Hepatology/Transplantation 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.
- Recommended reading and landmark articles are available on the Division of Gastroenterology, Hepatology and Nutrition’s shared-access drive. This information includes:
  - Practice Guidelines from the American Association for the Study of Liver Diseases (AASLD) [may also be accessed via www.aasld.org].
  - Transplant Hepatology CAQ

- **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

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### Competencies-at-a-Glance

**Hepatology Consultative Service**

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Revised
June 2011/ DuPont

Gastroenterology and Hepatology Outpatient Rotation
Memorial Hermann Hospital Texas Medical Center
Digestive Disease Center (DDC) and Texas Liver Center (TLC)
Curriculum for PGY 4, 5 and 6

Educational Purpose:
The MHH Gastroenterology and Hepatology Outpatient Rotation introduce the fellow to outpatient management of patients with gastroenterological and liver diseases. During this period, the fellow will have the opportunity to assess a wide variety of acute and chronic gastroenterological and liver conditions. The fellow will participate in increasing levels of management/treatment involvement with patient needs depending on the fellow’s level of experience. The fellow will be expected to formulate the differential diagnosis, institute diagnostic studies and recommend therapy. The amount of learning obtained from this rotation is directly proportional to the amount of time spent in the evaluation of the patients.

Objectives:
Fellows will learn all aspects of outpatient gastroenterology and liver disease care and will display all general competencies during this experience. Fellows in the Digestive Disease Center will develop familiarity with problems with complex issues related to irritable bowel syndrome, inflammatory bowel disease, motility disorders, malabsorption, and screening/surveillance for neoplasia or dysplasia are some of the more common conditions encountered. These include the differential diagnosis of other structural abnormalities involved in the esophagus, stomach, or duodenum, and knowledge of management of medications that may have serious systemic complications and/or the potential for drug interaction. Fellows in the Texas Liver Center will develop familiarity with standard treatments for common complications such as ascites, portal hypertension or hepatic encephalopathy and will build familiarity with standard treatments of chronic liver diseases such as viral hepatitis, autoimmune liver diseases, metabolic liver diseases, drug-induced liver disease, fatty liver disease and liver tumors. Fellows will obtain exposure to the liver transplantation selection process and will receive experience in the timing of referring patients for liver transplantation. 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 Gastroenterology and Hepatology Outpatient Service:

PGY 4 Fellow:

Goal: A Year I fellow should be able to assess new patient problems, formulate and execute a treatment plan with guidance and teach basic hepatology and gastroenterology skills to medical students and other trainees. Year I fellows should begin to develop basic procedural
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 (see practicum):
  - 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.
  - Liver Biopsies:
    - Fellows must have formal instruction and clinical expertise and must demonstrate competence in the performance of percutaneous liver biopsies.
  - Abdominal Paracentesis:
    - Fellows must have formal instruction and clinical expertise, and must demonstrate competence in the performance of diagnostic and therapeutic paracentesis.
- Fellows will have formal instruction and clinical experience and will demonstrate competence in:
  - A. Gastroenterology:
    - The evaluation and management of patients referred for:
      - Dysphagia
      - Abdominal pain
      - Diarrhea
      - Constipation
      - Gastrointestinal bleeding
      - Acid-peptic disorders
      - Inflammatory bowel disorders
      - Irritable bowel syndrome
      - Gastrointestinal motility disorders
      - Malabsorption
      - Gastrointestinal malignancy screening
  - B. Hepatology:
    - The prevention of acute and chronic endstage liver disease
    - The evaluation and management of outpatients with acute and chronic endstage liver disease
    - The management of fulminant liver failure
    - The psychosocial evaluation of all candidates, in particular those with a history of substance abuse
    - Drug hepatotoxicity and the interaction of drugs with the liver
    - Diagnosis and management of autoimmune hepatitis
    - Diagnosis and management of viral hepatitis
    - Diagnosis and management of cholesstatic liver diseases—primary biliary cirrhosis (PBC) and primary sclerosing cholangitis (PSC)
- 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 liver health.

Medical Knowledge Objectives:
Attend core conferences and teaching rounds (see attached conference schedule) to learn the pathophysiology, epidemiology, disease management and procedures and medicine management skills for common and uncommon gastrointestinal and liver diseases including:
- A. Gastroenterology:
  - The evaluation and management of patients referred for:
    - Dysphagia
    - Abdominal pain
    - Diarrhea
    - Constipation
○ Gastrointestinal bleeding
○ Acid-peptic disorders
○ Inflammatory bowel disorders
○ Irritable bowel syndrome
○ Gastrointestinal motility disorders
○ Malabsorption
○ Gastrointestinal malignancy screening

➢ B. Hepatology:
○ The prevention of acute and chronic endstage liver disease
○ The evaluation and management of inpatients with acute and chronic endstage liver disease
○ The management of fulminant liver failure
○ The psychosocial evaluation of all candidates, in particular those with a history of substance abuse
○ Drug hepatotoxicity and the interaction of drugs with the liver
○ Diagnosis and management of autoimmune hepatitis
○ Diagnosis and management of viral hepatitis
○ Diagnosis and management of cholestatic liver diseases – primary biliary cirrhosis (PBC) and primary sclerosing cholangitis (PSC)

➢ 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 gastroenterology section and 59.8 on the liver section of the in-service Gastroenterology Training Examination (GTE) exam. These scores are the national average for general gastroenterology and liver section 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 and hepatology literature for the management of gastrointestinal and liver disease patients.
▪ Learn the best practice patterns to facilitate gastrointestinal and hepatology 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 gastroenterology and hepatology care and overall system activities.
▪ Learn proper documentation and billing 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).

PGY 5 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 (see practicum checklist):
  - 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.
  - Liver Biopsies:
    - Fellows must have formal instruction and clinical expertise and must demonstrate competence in the performance of percutaneous liver biopsies.
  - Abdominal Paracentesis:
    - Fellows must have formal instruction and clinical expertise, and must demonstrate competence in the performance of diagnostic and therapeutic paracentesis

- Fellows will have formal instruction and clinical experience and demonstrate competence in:
  A. Gastroenterology:
    - The evaluation and management of patients referred for:
      - Chronic abdominal pain syndromes difficult to manage
      - Complex motility disorders
      - Irritable bowel syndrome
      - Evaluation of gastrointestinal bleeding of unclear etiology
      - Difficult to manage inflammatory bowel disease
      - Gastrointestinal neoplasm screening and surveillance
      - Pancreaticobiliary disorders
  B. Hepatology:
    - The comprehensive management of patients who are high on the transplant list in the intensive care setting with complications of end-stage liver disease including: refractory ascites, hepatic hydrothorax; hepatorenal syndrome, hepatopulmonary and portal pulmonary syndromes, and refractory portal hypertensive bleeding
    - The management of chronic viral hepatitis in the pre-transplantation, peri-transplantation, and post-transplantation settings
    - Nutritional support of patients with chronic liver disease
    - The use of interventional radiology in the diagnosis and management of portal hypertension, as well as biliary and vascular complications

- Present cases succinctly in a direct manner.
- Know the Outpatient Service’s patients at a management level.
- 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 liver 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 and liver diseases including:
  A. Gastroenterology:
    - The evaluation and management of patients referred for:
      - Chronic abdominal pain syndromes difficult to manage
      - Complex motility disorders
      - Irritable bowel syndrome
      - Evaluation of gastrointestinal bleeding of unclear etiology
      - Difficult to manage inflammatory bowel disease
      - Gastrointestinal neoplasm screening and surveillance
Pancreaticobiliary disorders

B. Hepatology:
- The comprehensive management of patients who are high on the transplant list in the intensive care setting with complications of end-stage liver disease including: refractory ascites, hepatic hydrothorax; hepatorenal syndrome, hepatopulmonary and portal pulmonary syndromes, and refractory portal hypertensive bleeding.
- The management of chronic viral hepatitis in the pre-transplantation, peri-transplantation, and post-transplantation settings
- Nutritional support of patients with chronic liver disease
- The use of interventional radiology in the diagnosis and management of portal hypertension, as well as biliary and vascular complications

- Organize the team’s performance at teaching rounds.
- Read textbook and pertinent literature materials concerning problems encountered.
- Teach medical students and other trainees about liver disease states and patient management.
- Achieve an average percentile score of at least 62.98 on general gastroenterology section and 65.7 on the liver section, respectively, of the in-service Gastroenterology Training Examination (GTE) exam. This score is the national exam average for liver diseases 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 and hepatology literature for the management of these disease patients.
- Know the best practice patterns to facilitate outpatient 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 and hepatology 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 practice proper documentation and billing skills to practice cost-effective care.
- Assist other trainees in the utilization of appropriate healthcare resources for the best care of the Hepatology 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 MHH 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.
  - **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.
  - **Liver Biopsies:**
    - Fellows must have formal instruction and clinical expertise and must demonstrate competence in the performance of percutaneous liver biopsies.
  - **Abdominal Paracentesis:**
    - Fellows must have formal instruction and clinical expertise, and must demonstrate competence in the performance of diagnostic and therapeutic paracentesis

- Fellows will have formal instruction and clinical experience and demonstrate competence in:
  - **A. Gastroenterology:**
    - The evaluation and management of patients referred for:
      - Difficult to manage acid-peptic disorders
      - Refractory and complicated inflammatory bowel disease
      - Complicated functional bowel disorders
      - Difficult to manage pancreaticobiliary disorders
      - Highly skilled and complex endoscopic procedures
      - Refractory motility disorders management
  - **B. Hepatology:**
    - The diagnosis and management of hepatocellular carcinoma and cholangiocarcinoma including transplantation, non-transplantation, and non-surgical approaches
    - Transplant immunology including blood group matching, histocompatibility, tissue typing, and infectious and malignant complications of immunosuppression
    - Ethical considerations relating to liver transplant donors, including questions related to living donors, non-heart beating donors, criteria for brain death, and appropriate recipients
    - Acquiring a current working knowledge of the organizational and logistic aspects of liver transplantation including the role of nurse coordinators and other support staff (e.g., social work), organ procurement, and UNOS policies including those regarding organ allocation

- 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 overall gastrointestinal health.

**Medical Knowledge Objectives:**
- Access and critique the medical literature regarding hepatology and gastroenterology problems encountered.
- 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 inpatient liver diseases including
  - **A. Gastroenterology:**
    - The evaluation and management of patients referred for:
      - Difficult to manage acid-peptic disorders
      - Refractory and complicated inflammatory bowel disease
      - Complicated functional bowel disorders
      - Difficult to manage pancreaticobiliary disorders
      - Highly skilled and complex endoscopic procedures
      - Refractory motility disorders management
  - **B. Hepatology:**
The diagnosis and management of hepatocellular carcinoma and cholangiocarcinoma including transplantation, non-transplantation, and non-surgical approaches
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Acquiring a current working knowledge of the organizational and logistic aspects of liver transplantation including the role of nurse coordinators and other support staff (e.g., social work), organ procurement, and UNOS policies including those regarding organ allocation

• 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 64.02 on general gastroenterology and 70.6 on the liver section, respectively in the in-service Gastroenterology Training Examination (GTE) exam. This score is the national exam average for the liver section 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 and hepatology literature for the management of diseases, 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 diseases 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 and hepatology 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.
• 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 Gastroenterology and Hepatology Outpatient 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.

The Outpatient Service experience will prepare the fellow to evaluate and manage acute and chronic liver diseases that will be encountered in the fellow’s future practice. This rotation will expose the fellow to a wide variety of acute and chronic gastrointestinal and liver diseases. Fellows will learn to incorporate and interact with a multidisciplinary team approach with the Liver Transplant Program at the Texas Liver Center. Fellows will learn the appropriate use of interventional radiology facilities capable of performing Transjugular Intrahepatic Portal Systemic Shunts (TIPS) and balloon angioplasty and will learn to share patient co-management responsibilities with transplant surgeons from the preoperative phase to the outpatient period and will learn to interact with an experienced liver transplant pathologist.
Fellows assigned to this service will rotate through the outpatient Gastroenterology DDC and Hepatology Texas Liver 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, liver biopsies (percutaneous and transjugular), abdominal paracenteses and thoracenteses, percutaneous transhepatic cholangiograms (PTC), etc. 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 and liver diseases and conditions at the Digestive Disease Center (DDC) and Texas Liver Center (TLC) which are the primary outpatient clinics. A diverse spectrum of internal medicine diagnoses and gastroenterology/hepatology care is provided at these clinics.

At the DDC Diagnoses range from pancreatitis, inflammatory bowel disease, and functional GI motility and pain disorders to primary and secondary gastrointestinal malignancies, and there is an appropriate concentration of common gastrointestinal diseases such as peptic ulcer disease, gastroesophageal reflux disease and gastrointestinal infections.

Particularly at the TLC diagnoses range from acute viral hepatitis (A/B), drug induced liver injury, fulminant liver failure, chronic viral hepatitis post transplantation, complicated hepatocellular carcinoma and cholangiocarcinoma. There is an appropriate concentration of common liver diseases related to evaluation of abnormal liver function tests, management of ascites including refractory ascites, hepatic hydrothorax, hepatorenal syndrome and portal hypertensive bleeding. diagnosis and management of autoimmune liver diseases and cholestatic liver diseases (PBC, PSC), metabolic liver diseases (Non-Alcoholic Fatty Liver Disease [NAFLD]), Inherited Liver Diseases such as Genetic Hemochromatosis, Wilson’s Disease and Alpha One Antitrypsin Deficiency.

Patient Characteristics:
Both the DDC and TLC 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.

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, non-emergent 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.

Evaluation:
Fellows are evaluated during the Outpatient Service rotations and are expected to participate in the evaluation of rotation and attending 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.);
  - 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
- *Gastrointestinal Disease: Pathophysiology Diagnosis Management* – Sleisenger & Fordtran.
- *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.
- Website of the American Association for the Study of Liver Disease (AASLD) with related links
- Recommended reading and landmark articles are available on the Division of Gastroenterology, Hepatology and Nutrition’s shared-access drive. This information includes:
  - Practice Guidelines from the American Association for the Study of Liver Diseases (AASLD) [may also be accessed via www.aasld.org].

Curricular Design
- ACGME Outcome Project documentation (from www.acgme.org).

Pertinent Teaching References:
- *Gastrointestinal Disease: Pathophysiology Diagnosis Management* – Sleisenger & Fordtran.
- *Diseases of the Liver* – Leon Schiff and Eugene Schiff
- *Zakim and Boyer’s Hepatology: A Textbook of Liver Disease*

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The Outpatient Service reflects appropriate teaching and evaluation related to all six core competencies. Patient care, teaching and the curriculum conferences during the rotation are the greatest elements that teach the competencies, and the global evaluation 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.

Revised
June 2011/ DuPont
Gastroenterology PancreaticoBiliary Consultation Rotation (PBS)
Memorial Hermann Hospital Texas Medical Center
&
HCHD: Lyndon B. Johnson General Hospital
Curriculum for PGY 5 and 6

Curriculum for Year II & III Fellows

Educational Purpose:
The Pancreaticobiliary Service at both MHH and LBJ introduces the fellow to inpatient management of patients with pancreas and biliary diseases. During this period, the fellow will have the opportunity to assess a wide variety of acute and chronic pancreaticobiliary conditions. As such, there will be an introduction to ERCP, but, for advanced training, fellows will require a fourth year. Additionally, a faculty committee will decide if certain fellows merit more intensive ERCP training during the three year fellowship. These fellows will be selected by the faculty. Pancreaticobiliary Consultation Service (PBS) fellows will participate in increasing levels of management/treatment involvement with patient needs and procedures, depending on the fellow’s level of experience. The fellow will be expected to formulate the differential diagnosis, institute diagnostic studies and recommend therapy. The amount of learning obtained from this rotation is directly proportional to the amount of time spent in the evaluation of the patients.

Objectives:
Fellows will learn all aspects of pancreas and biliary disease care and will display all general competencies during this experience. Minimum levels of achievement in each competency are expected during Years II and III of training, when fellows may participate in the Pancreaticobiliary Consultation Service. 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 Pancreaticobiliary Service:

Year II Fellow:

Goal: A Year II fellow should be able to assess and care for a large volume of patients and learn and teach basic textbook and evidence-based medicine to medical students and other trainees. Year II fellows should independently perform upper endoscopy procedures with a side viewing scope. Year II fellows should understand the indications for ERCP and EUS as well as risks and benefits of such procedures.

Patient Care Objectives:
- Complete a time-efficient history and physical examination.
- Direct medical students successfully with the appropriate level of intervention for each trainee’s skills.
  - Complete competency-level performance of the following pancreaticobiliary procedures:
  - Upper Endoscopy
  - Passage of side viewing endoscope and visualization of the ampulla of vater.
  - Begin to perform cannulation of the bile duct.
- Develop clear expertise in the diagnosis and management of acute and chronic pancreaticobiliary diseases including:
  - Acute Pancreatitis
  - Chronic Pancreatitis
  - Pancreatitis Cancer
  - Bile Duct Stones
  - Liver Cancer
  - Biliary Cancer
  - Post-Operative Injuries to the Liver, Bile Ducts & Pancreas
- Present cases succinctly in a direct manner.
- Know the Pancreaticobiliary Consultation 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 inpatient care that is safe and compassionate and develop the ability to thoroughly and clearly educate the inpatient 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 pancreaticobiliary diseases including:
  - Acute Pancreatitis
  - Chronic Pancreatitis
  - Pancreatic Cancer
  - Bile Duct Stones
  - Liver Cancer
  - Biliary Cancer
  - Post-Operative Injuries to the Liver, Bile Ducts & Pancreas
- Organize the team’s performance at teaching rounds.
- Read textbook and pertinent literature materials concerning problems encountered.
- Teach medical students and other trainees about pancreas and biliary disease states and patient management.
- Achieve an average percentile score of at least 73.90 on the Biliary Tract section and 48.36 on the Pancreas section of the in-service Gastroenterology Training Examination (GTE) exam. These scores are the national exam averages for pancreatiobiliary diseases 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 pancreatiobiliary literature related to patient management.
- Know the best practice patterns to facilitate pancreatiobiliary 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 gastroenterologists, referring physicians and other consultants.
- Present cases succinctly, in a problem-based, direct manner.
- Learn to become a teacher of pancreas and biliary diseases to junior trainees, medical students and other healthcare professionals.

**Professionalism Objectives:**
- Begin to mentor medical students and other trainees 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 MHH and LBJ hospitals.
- Understand and practice proper documentation and billing skills to practice cost-effective care.
- Assist other trainees in the utilization of appropriate healthcare resources for the best care of Pancreaticobiliary Service patients.
- Model appropriate interactions in multidisciplinary planning, including standard operating procedures and quality improvement initiatives.
- Attend national gastroenterology conferences (e.g., DDW, ACG or APA).

**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 procedures independently, as well as passage of the side viewing scope.

**Patient Care Objectives:**
- Master the Year II fellow objectives.
- Demonstrate efficient organization of the Pancreaticobiliary 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:
  - Complete competency-level performance of the following pancreaticobiliary procedures reflecting Year III responsibilities:
    - Biliary stone extraction
    - Upper Endoscopy
    - ERCP
    - Cannulation of bile duct and perform sphincterotomy and placement of bile duct stents
- Secure expertise in the diagnosis and management of acute and chronic inpatient pancreaticobiliary diseases including:
  - Acute Pancreatitis
  - Chronic Pancreatitis
  - Pancreatic Cancer
  - Pancreatic divisum
  - Congenital biliary abnormalities
  - Biliary strictures and primary sclerosing cholangitis
  - Pancreatic necrosis
  - Management of bile duct injuries related to trauma
  - Bile Duct Stones
  - Liver Cancer
  - Biliary Cancer
  - Post-Operative Injuries to the Liver, Bile Ducts & Pancreas
- Provide inpatient care that is safe and compassionate with the leadership ability to thoroughly and clearly educate the inpatient and all other trainees regarding relevant areas of disease prevention, detection, progression and therapy to promote pancreas and biliary health.

**Medical Knowledge Objectives:**
- Access and critique the medical literature regarding pancreas and biliary problems encountered.
- 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 inpatient pancreaticobiliary diseases including:
  - Acute Pancreatitis
  - Chronic Pancreatitis
  - Pancreatic Cancer
  - Pancreatic divisum
  - Congenital biliary abnormalities
  - Biliary strictures and primary sclerosing cholangitis
  - Pancreatic necrosis
  - Management of bile duct injuries related to trauma
  - Bile Duct Stones
  - Liver Cancer
  - Biliary Cancer
  - Post-Operative Injuries to the Liver, Bile Ducts & Pancreas
- 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 79.02 on the Biliary Tract section and 54.44 on the Pancreas section of the in-service Gastroenterology Training Examination (GTE) exam. These scores are the national exam averages for pancreaticobiliary diseases 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 hepatology literature for the management of liver disease patients, 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 liver 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 pancreas and biliary diseases 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.
- 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 Pancreaticobiliary Consultation Service during Years II and III of fellowship training. One fellow is assigned to the Pancreaticobiliary 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.

The Pancreaticobiliary Service experience is rigorous and will prepare the fellow to evaluate and manage acute and chronic pancreas and biliary diseases that will be encountered in the fellow’s future practice. This rotation will expose the fellow to a wide variety of pancreas and biliary disease diseases and problems.

Fellows assigned to this service will evaluate all new consults at MHH and LBJ hospitals and will be assigned to a continuity clinic one-half day per week. They will present new consults to the attending by the following day for routine consults and as soon as possible for emergencies. Fellows will evaluate each patient and will make initial recommendations regarding diagnostic tests and treatments. They will make arrangements for studies such as upper endoscopy, ERCP, MRCP etc. 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 liver diseases and conditions within the Pancreaticobiliary Consultation Service’s teaching hospitals. MHH and LBJ hospitals have a substantial primary care basis, which provides the entire spectrum of internal medicine diagnoses and gastroenterology care.

Diagnoses range from acute pancreatitis to pancreatic cancer, and there is an appropriate concentration of common pancreas and biliary diseases such as cholangitis, cholelithiasis, biliary strictures. Importantly, LBJ is exposed to a large Hispanic patient population, because of this there is outstanding diversity of biliary pathology highly prevalent in the group of patients.

Patient Characteristics:
MHH and LBJ offer 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 (MHH is complete with helicopter and fixed-wing transport 24/7), patients are seen in both acute status and in diagnostic dilemma status, with both common and uncommon disorders.

Types of Clinical Encounters – Attending Supervision:
Encounters are inpatient in nature during the Pancreaticobiliary Consultation Service. Fellows provide 24/7 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 at both MHH and LBJ seven days per week, and in-house supervision is available all night as well. The attending has ultimate responsibility for
patients.

Procedures:
During the Pancreaticobiliary Consultation Service, emergency procedures are performed 24/7 within duty hour limits by the fellow with the attending. Non-emergent 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 all Pancreaticobiliary Service rotations 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.

Additional Instructions for Fellows Participating in the Pancreaticobiliary Service:

I. Patient Care
1. Consultations/inpatient admissions: Consultations and inpatient admissions are evaluated by the pancreaticobiliary fellow on service on the day they are called in. They are to be written up and presented to the attending on service. Additionally, the attending should be notified of any urgent consultations or admissions as soon as possible, particularly if a same-day procedure is anticipated.
2. Pre-procedure evaluation: The fellow is expected to pre-round on inpatients in the morning prior to beginning the day’s procedures. If issues arise, the attending on service should be contacted as soon as possible. A pre-review of all outpatients slated for procedures that day should similarly be completed. This may be done by reviewing the patients electronic medical record (EMR), DDC/hospital chart review and, if appropriate, a phone call to the patient to introduce yourself and gather any further information that may be applicable. A thorough patient history, physical exam, and a review of the laboratory and radiologic data should be performed prior to ERCP. The history should be obtained sufficiently in advance to permit procedural changes as warranted (e.g., general anesthesia, correction of coagulation factors, set-up of sphincter of Oddi manometry, enrollment in an ongoing protocol, etc.). The fellow is responsible for entering all pertinent patient data into the ERCP database/report generator prior to and following the procedure. The attending physician and the fellow are expected to discuss the case in detail prior to proceeding, so that both are in agreement regarding the procedure. All inpatients should be seen daily, and a note should be written prior to attending rounds. Attending rounds will be performed daily after all procedures have been completed. All admissions and consultations will be seen on the day they are called, with rare exceptions as approved by the attending on service.
3. Intraoperative: The fellow will assist the attending in performance of the ERCP procedure. The goals for the fellow are to build a solid foundation in patient assessment, approach to the procedure, endoscopic technique, and familiarity with accessories (such as wires, catheters, stents, etc.) as well as the workings of the ERCP team. The number of “successful cannulations, papillotomies, guide wire placements, etc.” performed should not, by any means, be considered the ultimate measure of success. These come with time, as skills mature. Since the risks of therapeutic ERCP are equal to those of many surgical procedures, factors such as patient care and safety must remain paramount. Certain cases (high risk, difficult/prior failed procedure, pediatric, etc.) may be considered attending-only cases insofar as the actual performance of the procedure is concerned, and limitation of the fellow’s participation in the case will be at the discretion of the attending. However, the observant fellow will learn a great deal in assisting the attending and watching vigilantly. Such non-hands-on participation is important to the learning process.
4. Postoperative:
   a. Inpatients: Postop orders are to be written immediately after the procedure is completed. Pertinent postop data must be entered into the database and a preliminary report generated, signed, and placed on the chart before the patient leaves the GI lab. The attending will be responsible for dictating the procedure note. All inpatients who undergo a procedure must be seen on evening rounds, and a post-procedure check must be documented on the chart. The pancreatico-biliary service will be responsible for ALL aspects of the immediate postoperative management, as occurs on a surgical service. The
pancreatico-biliary fellow on service will keep their pagers on, and will be immediately accessible within pager range, 24 hours a day, six days per week, respectively while on service, with no exceptions. On Saturdays, the fellow on-service will round with the GI attending on service. On Sunday, the fellow will sign out to the GI team. On Monday am, the pancreatico-biliary fellow will take report from the GI team for Sunday’s events/admissions. The pancreatico-biliary attending will leave their beepers on 24Hr/7Day to serve as a back-up for the fellow and GI team on weekends for complex cases and for call-ins for emergency procedures.

b. **Outpatients:** Outpatient post-procedure follow-up mirrors the inpatient model. The fellow will evaluate each patient in the hospital to assess for post-ERCP complications.

If the fellow has personal business which would interfere with his/her responsibilities while on service, special coverage arrangements must be made in advance with the attending. **Fellow cross coverage is acceptable only if the cross-covering fellow has had prior experience with ERCP and has been adequately familiarized with the patients on the service.** The service fellow will remain responsible for assuring that cross-coverage proceeds smoothly.

**II. ERCP Database**
The ERCP database/report generator exists to assist in patient care follow-up and efficient pre-procedure patient review, to aid in research activities and to provide the fellow with an automatic, detailed, and running logbook of procedures performed. The database is divided into three parts: preop assessment, procedure report and follow-up.

**III. Research Protocols**
Fellows are encouraged to become familiar with existing research protocols, while they are on the pancreatico-biliary service. Fellows are expected to participate in patient enrollment and in carrying out the steps involved in any procedure-related protocols which apply to procedures they perform. Any fellow wishing to design studies is encouraged to discuss such ideas with the attendings. Fellows with a particular interest in pancreatico-biliary gastroenterology are encouraged to discuss the research opportunities available in the pancreatico-biliary section with the attendings, so that they can develop projects early in the fellowship.

**Bibliography:**
- **Resource Documents**
  - PubMed
  - *Gastrointestinal Disease: Pathophysiology Diagnosis Management* – Sleisenger & Fordtran.
  - Major Gastroenterology journals online and in the program’s fellow library including *Gastroenterology, American Journal of Gastroenterology,* Gut, and other major publications.
  - *Gastrointestinal Endoscopy: the Journal of the American Society for Gastrointestinal Endoscopy,* the endoscopy journal with the widest circulation throughout the world (monthly).
  - *Practical Gastrointestinal Endoscopy,* by Peter Cotton and Christopher Williams, the classic “beginner’s guide to endoscopy” and a perennial favorite of GI fellows.

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

- **Pertinent Teaching References:**
  - *Gastrointestinal Disease: Pathophysiology Diagnosis Management* – Sleisenger & Fordtran.

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Practice-Based Learning
- Quarterly M&M Conference
- Work Rounds
- Direct Observation

Interpersonal Skills
- Work Rounds
- Conferences
- 360-global evaluations

Professionalism
- Work Rounds
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Systems-Based Practice
- Committee Participation
- Grand Rounds (GI & Medical)
- 360-global evaluations

The Pancreaticobiliary Service reflects appropriate teaching and evaluation related to all six core 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 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.

Revised:
June 2011/ DuPont

Inpatient GI Consult Rotation
LBJ General Hospital
Curriculum for Year I, II & III Fellows

Educational Purpose:
The LBJ rotation comprises several aspects of clinical gastroenterology: consultation on inpatients and, when necessary, endoscopic procedures. The patient population at LBJ provides opportunities for particularly unique experiences within the gastroenterology fellowship.

In terms of evaluation and management, fellows at LBJ have certain opportunities to fulfill critical components of the gastroenterology curriculum:

Fellows at LBJ evaluate and manage abdominal pain, including acute abdominal pain, nausea and vomiting. There is significant exposure to the spectrum of both upper and lower gastrointestinal bleeding, including variceal and non-variceal bleeding. The fellows have the opportunity to evaluate and treat patients with both acute and chronic jaundice, abnormal liver function tests, cirrhosis, and malnutrition.

In particular, the rotation at LBJ gives significant opportunities to learn acid peptic, vascular, and infectious disorders of the gastrointestinal tract. Fellows are exposed to both alcoholic and gallstone pancreatitis. Fellows also see the spectrum of alcoholic liver disease. There is significant exposure to HIV involvement of the gastrointestinal tract. It is important to mention that fellow will be participating in the care of a large volume of Hispanic patients. This will create a valuable exposure to certain gastrointestinal diseases that are more prevalent in this group of patients (i.e. gallstone disease, gastrointestinal infections and other).
In terms of technical proficiency, LBJ allows the fellows to increase their competency in endoscopy, stricture dilation, gastrostomy feeding tube placements, esophageal variceal banding, and other methods to control acute gastrointestinal bleeding.

Objectives:
Fellows will learn all aspects of inpatient gastrointestinal care and will display all general competencies during this experience. 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 Inpatient GI Consult Service at LBJ Hospital:

**Year I Fellow:**

**Goal:** A Year I fellow should be able to assess new patient problems, 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 during the patient’s hospital stay. With attending consultation, formulate and execute an impression and a list of recommendations for the primary service. 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 gastroenterology procedures:
  - Colonoscopy
  - EsophagoGastroDuodenoscopy (EGD or Upper Endoscopy)
- By completion of Year I a fellow should be able to perform a diagnostic colonoscopy to the cecum with limited assistance.
- By completion of Year I a fellow should be able to perform a diagnostic endoscopy to the second portion of the duodenum.
- Develop expertise in the diagnosis and management of acute and chronic inpatient gastrointestinal diseases including:
  - Upper & lower GI bleeding
  - Peptic ulcer disease
  - GI infections
  - Ischemic colitis
  - Abdominal Pain
  - Inflammatory bowel disease
- Learn to provide inpatient care that is safe and compassionate and to develop the ability to thoroughly and clearly educate the inpatient in the relevant areas of disease prevention, detection, progression and therapy to promote gastrointestinal health.

**Medical Knowledge Objectives:**
- Attend core conferences and teaching rounds to learn the pathophysiology, epidemiology, disease management and procedure and medicine management skills for common and uncommon inpatient gastrointestinal diseases including:
  - Upper & lower GI bleeding
  - Peptic ulcer disease
  - GI infections
  - Ischemic colitis
  - Inflammatory bowel disease
- 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 gastrointestinal literature for the management of GI patients.
Learn the best practice patterns to facilitate gastroenterology 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, 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, including annual Faculty Meeting attendance, Fellow Curriculum Committee participation and Program Director meetings when requested.

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 gastroenterology care and overall system activities.
- Learn proper documentation and billing skills to practice cost-effective care.
- Utilize an appropriate range of healthcare professionals to care for patients, working closely with socials 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 patients 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 gastroenterology 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.
- Develop clear expertise in the diagnosis and management of acute and chronic inpatient gastrointestinal diseases including:
  - Neuroendocrine diagnosis
  - Intestinal/colonic pseudobstruction
  - Secretory diarrheal states
  - Idiopathic abdominal pain
  - Upper & lower GI bleeding
  - Peptic ulcer disease
  - Inflammatory bowel disease
  - GI infections
  - Pancreatitis
  - Ischemic colitis
- Present cases succinctly in a direct manner.
- Know the GI Hospital Service’s patients at a management level.
- Handle consult calls respectfully and appropriately.
Medical Knowledge Objectives:

- Teach good symptom management skills to medical students and other trainees.
- Provide inpatient care that is safe and compassionate and develop the ability to thoroughly and clearly educate the inpatient 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 inpatient gastrointestinal diseases including:
    - Neuroendocrine diagnosis
    - Intestinal/colonic pseudobstruction
    - Secretory diarrheal states
    - Idiopathic abdominal pain
    - Upper & lower GI bleeding
    - Peptic ulcer disease
    - Inflammatory bowel disease
    - GI infections
    - Pancreatitis
    - Ischemic colitis
  - Organize the team’s performance at teaching rounds.
  - Read textbook and pertinent literature materials concerning problems encountered.
  - Teach medical students and other trainees about GI 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 gastrointestinal literature for the management of GI patients.
- Know the best practice patterns to facilitate gastroenterology 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 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, including annual Faculty Meeting attendance, Fellow Curriculum Committee participation and Program Director meetings, when requested.

System-Based Practice Objectives:

- Attend conferences concerning healthcare system patient management and components of systems of healthcare.
- Understand and practice proper documentation and billing skills to practice cost-effective care.
- Assist other trainees in the utilization of appropriate healthcare resources for the best care of the GI Hospital 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 GI Hospital 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 gastroenterology 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.
  - 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.
- Secure expertise in the diagnosis and management of acute and chronic inpatient gastrointestinal diseases including:
  - Neuroendocrine diagnosis
  - Intestinal/colonic pseudobstruction
  - Secretory diarrheal states
  - Idiopathic abdominal pain
  - Upper & lower GI bleeding
  - Peptic ulcer disease
  - Inflammatory bowel disease
  - GI infections
  - Pancreatitis
  - Ischemic colitis
- Provide inpatient care that is safe and compassionate with the leadership ability to thoroughly and clearly educate the inpatient 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 and hepatology problems encountered.
- 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 inpatient gastrointestinal diseases including
  - Neuroendocrine diagnosis
  - Intestinal/colonic pseudobstruction
  - Secretory diarrheal states
  - Idiopathic abdominal pain
  - Upper & lower GI bleeding
  - Peptic ulcer disease
  - Inflammatory bowel disease
  - GI infections
  - Pancreatitis
  - Ischemic colitis
- 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 gastrointestinal literature for the management of GI patients, 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 gastroenterology 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 Year I fellows in professional conduct.
- Assist in formal teaching exercises as requested.
- Assert leadership in program planning, including fellow participation in the annual Faculty/Fellow Meeting, Fellow Curriculum Committee and Conference Planning Committees.

**Systems-Based Practice Objectives:**
- Attend conferences concerning healthcare system patient management and components of systems of healthcare.
- 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 Inpatient GI Consult Service at LBJ Hospital during all three fellowship years. One fellow is assigned to the GI Hospital 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.

The GI Consult Service experience will prepare the fellow to evaluate and manage acute and chronic gastrointestinal illnesses that will be encountered in the fellow’s future practice. This rotation will expose the fellow to a wide variety of acute abdominal inflammatory processes, major gastrointestinal hemorrhages, and a wide variety of gastrointestinal problems.

Fellows assigned to this service will evaluate all new consults at LBJ General Hospital and will be assigned to a continuity clinic one-half day per week. They will present new consults to the attending by the following day for routine consults and as soon as possible for emergencies.

Fellows will evaluate each patient and will make initial recommendations regarding diagnostic tests and treatments. They will make arrangements for studies such as endoscopy, motility tests, biopsies, etc. 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 and conditions at the GI Hospital Service’s teaching hospital. LBJ General Hospital has a substantial primary care basis, which provides the entire spectrum of internal medicine diagnoses and gastrointestinal care.

Diagnoses range from pancreatitis, inflammatory bowel disease, and functional GI motility and pain disorders to primary and secondary gastrointestinal malignancies, and there is an appropriate concentration of common gastrointestinal diseases such as peptic ulcer disease, gastroesophageal reflux disease and gastrointestinal infections. In particular, the fellow will be participating in the care of a large volume of Hispanic patients. This will create a valuable exposure to certain gastrointestinal diseases that are more prevalent in this group of patients (i.e. gallstone disease, gastrointestinal infections and other

**Patient Characteristics:**
LBJ General Hospital offers a diverse mix of socioeconomic and gender status. This Hospital provides care to a vast number of patients that are
part of certain minority population of our city district. This includes Hispanics, Asians and others. This is a unique opportunity that is being given to our fellows since they can be involved in the management of certain gastrointestinal diseases that are highly prevalent in some of these minorities. An example of this would be gallstone disease and viral hepatitis.

Types of Clinical Encounters – Attending Supervision:
Encounters are inpatient in nature during the GI consult Service. Fellows provide 24/7 consultative care under the supervision of an attending within duty hour limits and with faculty backup for situations of overload. Daily attending supervision is available at LBJ General Hospital seven days per week, and in-house supervision is available all night as well. The attending has ultimate responsibility for patients.

Procedures:
During the GI Consult Service, emergency procedures (e.g. for gastrointestinal bleeding) are performed 24/7 within duty hour limits by the fellow with the attending. Non-emergent 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 all GI Consult Service rotations 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 attending as well. Evaluations include:
  - 360-degree (attending, nurse, nurse practitioner, staff/clerical, etc.);
  - Direct observation
  - 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) must be organized to review program goals and objectives and the effectiveness with which they are achieved. This group must conduct 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
  - PubMed
  - Textbook of Gastroenterology – Yamada, et.al.
  - Gastrointestinal Disease: Pathophysiology Diagnosis Management – Sleisenger & Fordtran.
  - Major Gastroenterology journals online and in the program’s fellow library including Gastroenterology, American Journal of Gastroenterology, Gut, 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:
  - Textbook of Gastroenterology – Yamada, et.al.
  - Gastrointestinal Disease: Pathophysiology Diagnosis Management – Sleisenger & Fordtran.

Competencies-at-a-Glance
GI Consult Service

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The Inpatient GI Consult I Service at LBJ Hospital is the core fellow rotation related to 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.

Revised
June 2011/ DuPont
GI OP Procedure Rotation
At LBJ General Hospital
Curriculum for Year I, II & III Fellows

Educational Purpose:
The Procedure Rotation at LBJ General Hospital introduces the fellow to inpatient and outpatient gastroenterology procedures and management of patients in need of these procedures. During this period, the fellow will have the opportunity to perform a wide variety of GI procedures with appropriate supervision. The fellow will participate in increasing levels of procedure activities, depending on the fellow’s level of experience. The fellow will be expected to conduct appropriate patient communications, perform the procedure, make post-procedure recommendations and document the procedure. The amount of learning obtained from this rotation is directly proportional to the amount of time spent conducting procedures and conferring with supervising attendings.

Objectives:
Fellows will learn all aspects of procedure performance and will display all general competencies during this experience. 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 GI Procedure Service:

Year I Fellow:

Goal: 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 prior any endoscopic intervention. With attending consultation, formulate and execute an impression and a list of recommendations for the primary service after the procedure has been carried out. He will consent patients for procedures and order appropriate diagnostic tests (e.g., endoscopy, radiologic tests, etc.) in conjunction with the primary/referring service when needed.
- Perform with supervision the following basic gastroenterology 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.
- Develop expertise in the diagnosis and management of acute and chronic inpatient gastrointestinal diseases that need endoscopic evaluations as part of the initial work-up including:
  - Upper & lower GI bleeding
  - Peptic ulcer disease
  - GI infections
  - Ischemic colitis
  - Abdominal pain
- Learn to provide inpatient care that is safe and compassionate and to develop the ability to thoroughly and clearly educate the inpatient in the relevant areas of disease prevention, detection, progression and therapy to promote gastrointestinal health.

Medical Knowledge Objectives:
- Attend core conferences and teaching rounds to learn the pathophysiology, epidemiology, disease management and procedure and medicine management skills for common and uncommon inpatient gastrointestinal diseases including:
  - Upper & lower GI bleeding
  - Peptic ulcer disease
  - GI infections
  - Ischemic colitis
  - Abdominal pain.
By end of Year I, pass the Internal Medicine Board Examination.

Read textbook and pertinent literature materials concerning procedure problems encountered and start to develop a teaching role with medical students and other trainees about general GI procedures.

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 gastrointestinal literature for the management of GI patients.
- Learn the best practice patterns to facilitate gastroenterology 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, 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 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, including annual Faculty Meeting attendance, Fellow Curriculum Committee participation and Program Director meetings when requested.

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 gastroenterology care and overall system activities.
- Learn proper documentation and billing 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., endoscopy training courses).

Year II Fellow:

Goal: A Year II fellow should learn to assess and care for a large volume of patients. 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 gastroenterology 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.
- Present cases succinctly in a direct manner.
- Know Procedure Service patients at a management level.
- Handle consult calls respectfully and appropriately.
- Teach good procedure and symptom management skills to medical students and other trainees.
- Provide GI procedure 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 inpatient gastrointestinal diseases including:
  - Neuroendocrine diagnosis
  - Intestinal/colonic pseudoobstruction
  - Secretory diarrheal states
  - Idiopathic abdominal pain
  - Upper & lower GI bleeding
  - Peptic ulcer disease
  - Inflammatory bowel disease
  - GI infections
  - Pancreatitis
  - Ischemic colitis
- Organize the team’s performance during procedure rounds.
- Read textbook and pertinent literature materials concerning procedure problems encountered.
- Teach medical students and other trainees about GI procedures and patient management.

**Practice-Based Learning Objectives:**
- Participate in project groups, committees and hospital groups when requested.
- Participate in programmatic reviews and conferences studying adverse procedure 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 gastrointestinal literature for the management of GI patients and the utilization of GI procedures.
- Know the best practice patterns to facilitate gastroenterology procedure care through GI Ia 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 gastroenterologists, referring physicians and other consultants.
- Present cases succinctly, in a problem-based, direct manner.
- Learn to become a teacher of gastroenterology procedures 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 and medical equipment representatives and be unbiased in prescribing and procedure 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, including annual Faculty Meeting attendance, Fellow Curriculum Committee participation and Program Director meetings, when requested.

**Systems-Based Practice Objectives:**
- Attend conferences concerning healthcare system patient management and components of systems of healthcare.
- Understand and practice proper documentation and billing skills to practice cost-effective care.
- Assist other trainees in the utilization of appropriate healthcare resources for the best care of the GI Hospital 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 Procedure 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 gastroenterology 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.
  - 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.
- Provide gastroenterology procedure care that is safe and compassionate with the leadership ability to thoroughly and clearly educate the inpatient and all other trainees regarding relevant areas of disease prevention, detection, progression, procedure activities and therapy to promote gastrointestinal health.

Medical Knowledge Objectives:
- Access and critique the medical literature regarding gastroenterology and hepatology procedure problems encountered.
- 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 inpatient gastrointestinal diseases including:
  - Neuroendocrine diagnosis
  - Intestinal/colic pseudoobstruction
  - Secretory diarrheal states
  - Idiopathic abdominal pain
  - Upper & lower GI bleeding
  - Peptic ulcer disease
  - Inflammatory bowel disease
  - GI infections
  - Pancreatitis
  - Ischemic colitis
- Teach medical students, other trainees and Year I & II fellows at near-attending level.
- Prepare for the ABIM certifying exam throughout the year.
- Organize procedure team activities in a smooth and authoritative fashion.
- Assist Year II fellows’ development directly at teaching conferences and indirectly at work sites.

Practice-Based Learning Objectives:
- Demonstrate mastery of Year II fellow skills and encourage participation of colleagues.
- Review, analyze and utilize scientific evidence from the gastrointestinal literature for the procedure management of GI patients, 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 gastroenterology procedure care through GI lab 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 procedure cases succinctly, in a problem-based, direct manner.
- Assume the role of a teacher of gastroenterology procedures to junior trainees, medical students and other healthcare professionals.

Professionalism Objectives:
- Demonstrate proficiency in Year II objectives.
Mentor medical students, other trainees and Year I fellows in professional GI procedure conduct.
Assist in formal teaching exercises as requested.
Assert leadership in program planning, including fellow participation in the annual Faculty/Fellow Meeting, Fellow Curriculum Committee and Conference Planning Committees.

Systems-Based Practice Objectives:
- Attend conferences concerning healthcare system patient management and components of systems of healthcare.
- 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:
Each fellow will have at least one procedure block during the three years of fellowship. Only one fellow is assigned to the GI Procedure Service. The Procedure Service experience will prepare the fellow to diagnosis and manage acute and chronic gastrointestinal illnesses that will be encountered in the fellow’s future practice. This rotation will expose the fellow to a wide variety of acute abdominal inflammatory processes, major gastrointestinal hemorrhages, oncological emergencies and a wide variety of gastrointestinal problems.

Since endoscopic procedures are integral to the gastroenterology profession, this month should serve as a time to hone skills and work on specific procedures that may be difficult to master during the inpatient months (e.g., polypectomy, esophageal dilation, etc.). The procedure month should be viewed as supplemental to the inpatient endoscopies and outpatient procedures performed with the fellow’s clinic attending.

Participating in all required conferences is mandatory. As fellows gain experience throughout their training, skills or organization and efficiency as well as team leadership become increasingly important.

During the procedure block the fellow should make an effort to work with as many different attendings as possible. The fellow should keep a log of procedures performed during the month.

The fellow will evaluate each patient and will make initial recommendations regarding diagnostic tests and treatments. He/she will make arrangements for studies such as endoscopy, motility tests, biopsies, etc. The fellow will review the appropriateness of the procedure with the attending before making final procedure plans. The fellow should gain experience with upper endoscopy and colonoscopy with biopsies, polypectomy and esophageal dilations during the procedure rotation.

Disease Mix:
Fellows see a complete mix of gastrointestinal diseases and conditions at the Procedure Service at LBJ General Hospital. This hospital operates with a substantial primary care basis, which provides the entire spectrum of internal medicine diagnoses and gastrointestinal care.

Diagnoses range from pancreatitis, inflammatory bowel disease, and functional GI motility and pain disorders to primary and secondary gastrointestinal malignancies, and there is an appropriate concentration of common gastrointestinal diseases such as peptic ulcer disease, gastroesophageal reflux disease and gastrointestinal infections.

Patient Characteristics:
LBJ General Hospital offers a diverse mixes of socioeconomic and gender status.

Types of Clinical Encounters – Attending Supervision:
Encounters are both inpatient and outpatient in nature during the Procedure Service. Fellows provide 24/7 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, and in-house supervision is available all night as well. The attending has ultimate responsibility for patients.

Procedures:
During the Procedure Service, emergency procedures (e.g. for gastrointestinal bleeding) are performed 24/7 within duty hour limits by the fellow with the attending. Non-emergent 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 (see procedure practicum: direct observation).

Evaluation:
Fellows are evaluated during all Procedure Service rotations 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 attending 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.

- Fellows self-evaluate through their e-portfolio participation/communication with mentors and colleagues and through document maintenance.
- 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) must be organized to review program goals and objectives and the effectiveness with which they are achieved. This group must conduct 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
  - Appropriate use of Gastrointestinal Endoscopy in Gastrointestinal Endoscopy. 52(6), 2000.
  - Visit the Practice Guidelines section of the ASGE website > http://www.asge.org/PublicationsProductsindex.aspx?id=352

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

- Pertinent Teaching References:
  - Textbook of Gastroenterology – Yamada, et.al.
  - Gastrointestinal Diseases: Pathophysiology Diagnosis Management – Sleisenger & Fordtran.
Practice-Based Learning
- Conferences
- Quarterly M&M Conference
- Work Rounds
- 360-global evaluations
- Direct Observation

Interpersonal Skills
- Work Rounds
- Work Rounds
- Conferences
- 360-global evaluations

Professionalism
- Conferences

Systems-Based Practice
- Committee Participation
- Grand Rounds (GI & Medical)
- Conferences
- 360-global evaluations

Procedure 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.

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June 2011 / DuPont
LBJ Clinical Research Rotation  
Curriculum for Year I, II & III Fellows

**Educational Purpose:**
The Research Rotation introduces the fellow to the field of gastroenterology and hepatology research. While Year I fellows discuss and plan for future research, the Research Service is primarily designed for Year II and Year III fellows and allows time for research planning, work and post-research outcomes. The Division of Gastroenterology, Hepatology and Nutrition has a large faculty with diverse clinical and academic interests, ensuring that fellows have complete opportunities to investigate the gastroenterology or hepatology research project of their choice generally designed and conducted in close interaction with their mentor. The fellow will participate in increasing levels of research activities, depending on the fellow’s level of experience. The amount of learning obtained from this rotation is directly proportional to the amount of time dedicated to research.

**Objectives:**
Fellows will follow a complete course of research study during this rotation including research ethics, project exploration, planning, actual research activity, analysis, written outcomes and, ideally, presentation of their project at a national GI or hepatology meeting or in a peer-reviewed journal. Fellows will display the following ACGME core competencies during this rotation: medical knowledge, practice-based learning, professionalism and systems-based practice. 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 GI Research Service:

**Year I Fellow:**

**Goal:** The first training year is a time for fellows to attend conferences, explore research project ideas, and meet with current fellows and potential faculty mentors to discuss research ideas and feasibility. Year I fellows are expected to meet with one and preferably all of the following faculty leaders related to research goals: fellowship program director, fellowship associate director and division chief. Fellows are expected to select their research project and mentor before the end of their first year. Year I fellows are expected to attend the GI Research conference sessions at which Year II and III fellows present their research plans and outcomes. The first year fellow is required to carry out one small research project during the first twelve months of training. This could be either as a published case report or abstract. During this period of time the fellow will be exposed to different areas in the field of gastroenterology as well as working with different faculty members at all facilities.

**Medical Knowledge Objectives:**
- Attend core conferences and teaching rounds to learn the pathophysiology, epidemiology, disease management and procedure and medicine management skills for common and uncommon inpatient gastrointestinal diseases and related basic science, translational and clinical research.
- Accumulate and begin to solve the issues that he/she encounters from other trainees, attendings and related medical professionals. Begin to apply problem solving skills to research project analysis.
- Develop a commitment to inquisitiveness and novel thinking related to research investigations. While this objective is arguably innate and can be least affected by training, it is critical for success in independent investigations.
- 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 the GI Research conference
- Begin to review, analyze and utilize scientific evidence from the gastrointestinal literature related to the fellow’s research explorations and actual project.

**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 about and begin to practice appropriate research organizational skills including background study, hypothesis formulation, study design, statistics, data management and data interpretation.
Learn to practice ethical principles with relation to medical research. Important ethical issues include confidentiality, informed consent, data safety, ownership and responsibility, reporting honestly, and authorship fairness.

Learn to practice appropriate interactions with pharmaceutical representatives.

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, including annual Faculty Meeting attendance, Fellow Curriculum Committee participation and Program Director meetings when requested.

**Systems-Based Practice Objectives:**
- Attend conferences concerning internal system research practices, research practices elsewhere, Internal Review Board (IRB) policies, and similar programs.
- Achieve basic understanding of healthcare systems related to gastroenterology and hepatology research, related translational gastroenterology care and overall system activities.
- Learn proper documentation skills to practice cost-effective research activities.
- Utilize an appropriate range of healthcare professionals to explore research opportunities.
- Begin involvement to understand the standard operating procedures and quality improvement initiatives within the hospital.
- Attend national gastroenterology conferences (e.g., ACG).

**Year II Fellow:**

**Goal:** The primary research rotation blocks occur in Year II, and fellows have three consecutive research rotations. The fellow will formulate a testable hypothesis, propose a study design and complete most of his/her investigations during Year II, and will concentrate on data acquisition and management. An understanding of statistical analysis should be achieved. Prior to their research rotation, Year II fellows will meet with the fellowship program director to ensure reasonable research goals, and Year II fellows are also expected to present their research plans at the GI Research conference. The fellow will work closely with his/her research mentor to ensure appropriate research ethics including patient privacy, complete actual research activities and begin abstract or publication materials.

**Medical Knowledge Objectives:**
- Begin to take a leadership role at core conferences and teaching rounds regarding the research investigations and critiques, pathophysiology, epidemiology, disease management and procedures and medicine management skills for common and uncommon inpatient gastrointestinal diseases.
- Organize the team’s performance in the research environment.
- Read textbook and pertinent literature materials concerning problems encountered.
- Continue to develop inquisitiveness and novel thinking attributes and apply these character traits to active laboratory investigations.

**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 research technicians, 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 gastrointestinal and hepatology literature to enhance research productivity and outcomes.
- Know the best practice patterns to facilitate quality research projects based on research laboratory procedures and organization.

**Interpersonal Communication Skill Objectives** (if patient or human subject interactions are needed for Year II research project):
- Interview patients and family members accurately, patiently and compassionately and present information in an understandable manner.
- Practice appropriate informed consent procedures.
- Ensure appropriate patient confidentiality measures.
- Plan patient and family conferences as needed.
- Communicate effectively with research mentor, research staff, administrative staff, peers, attending gastroenterologists, referring physicians and other consultants as needed. Ensure reporting honesty and authorship fairness throughout research activities.
- Learn to become a teacher of gastroenterology research 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 and research successes.
- Practice appropriate research organizational skills including background study, hypothesis formulation, study design, statistics, data management and data interpretation. Present research plans and to-date research outcomes to peers through presentations and, as relevant, in publications.
- Continue to attend to the ethical principles activities and commitment achieved in Year I. Important ethical issues include confidentiality, informed consent, data safety, ownership and responsibility, reporting honestly, and authorship fairness.
- Practice interactions with pharmaceutical representatives and be unbiased in research investigations.
- Interact appropriately and present all needed document to the system’s Internal Review Board (IRB).
- 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, including annual Faculty Meeting attendance, Fellow Curriculum Committee participation and Program Director meetings, when requested.

Systems-Based Practice Objectives:
- Attend conferences concerning all aspects of research investigation and discovery as well as healthcare system patient management and components of systems of healthcare.
- Understand and practice proper research organization and documentation.
- Assist other trainees in the utilization of appropriate research resources.
- 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 comprehensive understanding of their area of study, study design, data acquisition and analysis. In addition, they are expected to prepare a manuscript based on their work for publication in a peer-reviewed journal. Year III fellows typically dedicate an average of three rotations to finalizing their research projects and writing about their research outcomes. The development of abstract and/or publication submissions of the fellows’ research project should occur early during Year III. In cases where the Year III fellow has established themselves in research and has made strides toward a career as an independent researcher, this fellow could mentor a Year I fellow in conjunction with a faculty researcher. Fellows are required to present or publish their research before graduation. Year III fellows are expected to present their research outcomes and plans for project outcome submissions in national publications at the GI Research conference.

Medical Knowledge Objectives:
- Access and critique the research literature regarding gastroenterology and hepatology problems encountered.
- Assume the trainee leadership role at core conferences and teaching rounds regarding the research investigations and reviews, pathophysiology, epidemiology, disease management, procedures and medicine management skills for common and uncommon inpatient gastrointestinal diseases.
- 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 laboratory sites.

Practice-Based Learning Objectives:
- Demonstrate mastery of Year II fellow skills and encourage participation of colleagues related to research successes.
- Review, analyze and utilize scientific evidence from the gastrointestinal literature related to the critical review of research publications, translational research/clinical care management of GI patients, and 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 gastroenterology care through research investigations.
- Achieve acceptance of research outcome submissions in at least one of the following publication/presentation formats:
  - Publication of original research;
  - Review article;
  - Editorial in a peer-reviewed (indexed) journal;
  - Funded peer-reviewed grant;
  - Book chapter in a medical textbook;
  - Abstracts published; and/or
  - Abstracts presented at a national gastroenterology or hepatology meeting.

Professionalism Objectives:
- Demonstrate proficiency in Year II objectives.
- Mentor medical students, other trainees and Year I fellows in professional research conduct.
• Make a commitment to finalize the research project early in Year III, so that appropriate writing and application submissions may be made for research publications and national gastroenterology and hepatology meetings.
• Write about research project outcomes and work with research mentor to submit project documentation, abstracts and/or articles to national meeting and peer-reviewed journal reviewers.
• Consider the multidisciplinary implications of the fellow’s research project.
• Learn appropriate grant writing skills. If appropriate, work with research mentor to apply for grants.
• Assist in formal research-related teaching exercises as requested.
• Assert leadership in program planning, including fellow participation in the annual Faculty/Fellow Meeting, Fellow Curriculum Committee and Conference Planning Committees.

Systems-Based Practice Objectives:
• Attend conferences concerning all aspects of research investigations, healthcare system patient management and components of systems of healthcare.
• 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:
Principles of gastroenterology and hepatology research are part of the trainees' entire fellowship experience. Fellows review other peer-reviewed research during Year I, select their own research mentor and begin planning of their own research projects during this time. Active research lab work and/or clinical investigations occur during Year II. Year III fellows finalize their research projects and prepare all outcome documentations for abstract submissions, presentations and/or publications. Fellows will have adequate clinical, laboratory and equipment resources to complete conduct and complete their research projects. Teaching of medical students, residents and other trainees as well as appropriate interactions with other research and healthcare providers are important aspects of this rotation. Participation in all required conferences is mandatory. As fellows gain experience throughout their training, skills of organization and efficiency as well as team leadership become increasingly important.

The GI Research Service experience will prepare the fellow to evaluate and manage gastroenterology and hepatology research and will prepare the fellow to work on and publish outcomes related to his/her own research projects. Fellows will be prepared for a career in academic gastroenterology/hepatology and will have the opportunity to write grants for continued research when appropriate. Fellows must communicate with his/her research mentor and with all relevant research staff and collaborators related to all investigative studies.

Research Format and Expectations:
The Gastroenterology Fellowship Program is committed to a rigorous, challenging and rewarding research experience for its fellows. While most research skills may be taught and/or mentored, some critical components of research investigations related to investigator eagerness, commitment and novel thinking are instinctive and may only be encouraged and mentored via high quality teaching. Research faculty, therefore, maintain strong and valuable commitments to fellow research productivity and are committed to developing fellows’ career goals related to a research/academic career.

The GI Research Rotation incorporates the following targeting research training goals
• A commitment to research ethics including issues related to confidentiality, informed consent, data safety, ownership and responsibility, reporting honestly and authorship fairness.
• A commitment to the thorough and thoughtful review of relevant gastroenterology and hepatology literature, including identifying, reading and understanding this literature.
• A commitment to appropriate data acquisition and management both in the lab and among potential subjects.
• A commitment to inquisitiveness and novel thinking. This is an innate ability perhaps least affected by training but critical for success in becoming an independent investigator.
• A commitment to research organizational skills including background study, hypothesis formulations, study design, statistics, data acquisition and charting, data management and interpretation, presentations to peers and colleagues, and attention to national presentations and publications. For fellows pursuing a career in academic gastroenterology, exposure to and understanding of descriptive and analytical statistics is important.
• A commitment to the basic principles of grant writing and grant writing encouragement and instruction for those fellows following a career in academic medicine.
• A commitment to the identification of unique and talented researchers early on and the development of research mentoring skills in these young researchers.

Patient Characteristics:
To the degree that patients or subjects are needed for the fellow’s research project, Memorial Hermann Hospital, LGJ General Hospital, The Methodist Hospital and MD Anderson Cancer Center offer a diverse mixes 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 (complete with helicopter transport 24/7), patients are seen in both acute status and in diagnostic dilemma status, with both common and uncommon disorders.

Evaluation:
Fellows are evaluated during the GI Research 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 attending 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) must be organized to review program goals and objectives and the effectiveness with which they are achieved. This group must conduct 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
  - PubMed
  - *Gastrointestinal Disease: Pathophysiology Diagnosis Management* – Sleisenger & Fordtran.
  - Major Gastroenterology journals online and in the program’s fellow library including *Gastroenterology, American Journal of Gastroenterology, Gut,* 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:
  - *Gastrointestinal Disease: Pathophysiology Diagnosis Management* – Sleisenger & Fordtran.
## Competencies-at-a-Glance
### GI Research Rotation

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Revised
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Educational Purpose:
The Inpatient Consult Rotation at The University of Texas M.D. Anderson Cancer Center provides a unique opportunity for fellows in training to consult on hospitalized patients regarding specific issues related to gastrointestinal cancer or GI complications of oncologic treatments and GI changes associated with non-GI malignancies. This service includes the GI Fellow, GI Faculty, and a Physician Assistant.

Competency is expected in, but not limited to, the following: gastrointestinal cancer diagnosis; endoscopic management of tumor-associated bleeding and obstruction; diagnosis of GI and hepatic complications of bone marrow transplant (including specifically graft versus host disease, venoocclusive disease, opportunistic infection); diagnosis of GI complications of chemotherapy and radiation therapy, general, and in the special contexts of anemia, thrombocytopenia, and neutropenia. Non-cancer related problems may be encountered as well, including complicated acid-peptic disease, motility disturbances, complicated inflammatory bowel disease, diverticulitis, mesenteric vascular events, gastrointestinal infections, and pancreaticobiliary disease including choledolithiasis.

Since severely ill and terminal cancer patients populate our inpatient services, an empathic bedside manner will be cultivated and will be expected. Communication with patients and their families, while time-consuming, carry a premium on this rotation. Collegial relations with nurses and clerks are expected.

Objectives:
Fellows will learn all aspects of inpatient gastrointestinal care and will display all general competencies during this experience. 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 UT M.D. Anderson Cancer Center.

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 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 during the patient’s hospital stay. With attending consultation, formulate and execute an impression and a list of recommendations for the primary service. 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 gastroenterology procedures (see practicum):
  - 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.
- Develop expertise in the diagnosis and management of acute and chronic inpatient gastrointestinal diseases including:
  - Gastrointestinal cancer diagnosis
  - Diagnosis of GI and hepatic complications of bone marrow transplant (including specifically graft versus host disease, venoocclusive disease, opportunistic infection)
  - Diagnosis of GI complications of chemotherapy and radiation therapy, including anemia, thrombocytopenia and neutropenia
  - Complicated acid-peptic disease
  - Motility disturbances
• Appropriate assessment and treatment options for GI cancer
• Mesenteric vascular events
• Gastrointestinal infections

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

Medical Knowledge Objectives:
➢ Attend core conferences and teaching rounds to learn the pathophysiology, epidemiology, disease management and procedure and medicine management skills for common and uncommon inpatient gastrointestinal diseases including:
  o Gastrointestinal cancer diagnosis
  o Diagnosis of GI and hepatic complications of bone marrow transplant (including specifically graft versus host disease, venoocclusive disease, opportunistic infection)
  o Diagnosis of GI complications of chemotherapy and radiation therapy, including anemia, thrombocytopenia and neutropenia
  o Complicated acid-peptic disease
  o Motility disturbances
  o Appropriate assessment and treatment options for GI cancer
  o Mesenteric vascular events
  o Gastrointestinal infections

➢ Accumulate and begin to solve the issues that he/she encounters from other trainees, attendings and related medical professionals.
➢ 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 gastrointestinal literature for the management of GI patients with emphasis in gastrointestinal oncology
➢ Learn the best practice patterns to facilitate gastroenterology care through operating procedures and patient interactions, particularly in the community gastroenterologist setting.

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, 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, including annual Faculty Meeting attendance, Fellow Curriculum Committee participation and Program Director meetings when requested.

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 gastroenterology care and overall system activities.
➢ Learn proper documentation to practice cost-effective care.
➢ Utilize an appropriate range of healthcare professionals to care for patients, working closely with socials 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 patients. They will 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 gastroenterology 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.
    - Endoscopic management of tumor-associated bleeding and obstruction
- Develop clear expertise in the diagnosis and management of acute and chronic inpatient gastrointestinal diseases including:
  - Gastrointestinal cancer diagnosis
  - Diagnosis of GI and hepatic complications of bone marrow transplant (including specifically graft versus host disease, venoocclusive disease, opportunistic infection)
  - Diagnosis of GI complications of chemotherapy and radiation therapy, including anemia, thrombocytopenia and neutropenia
  - Complicated acid-peptic disease
  - Motility disturbances associated with gastrointestinal malignancies
  - Appropriate assessment and treatment options for GI cancer
  - Mesenteric vascular events
  - Pancreatitis
  - Ischemic colitis
  - Gastrointestinal oncologic emergencies
  - Gastrointestinal opportunistic infections related to chemotherapy
  - Barrett’s Esophagus
- Present cases succinctly in a direct manner.
- Know the M.D. Anderson inpatient consult service patients at a management level.
- Handle consult calls respectfully and appropriately.
- Teach good symptom management skills to medical students and other trainees.
- Provide inpatient care that is safe and compassionate and develop the ability to thoroughly and clearly educate the inpatient 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 inpatient gastrointestinal diseases including:
  - Gastrointestinal cancer diagnosis
  - Diagnosis of GI and hepatic complications of bone marrow transplant (including specifically graft versus host disease, venoocclusive disease, opportunistic infection)
  - Diagnosis of GI complications of chemotherapy and radiation therapy, including anemia, thrombocytopenia and neutropenia
  - Complicated acid-peptic disease
  - Motility disturbances associated with gastrointestinal malignancies
  - Appropriate assessment and treatment options for GI cancer
  - Mesenteric vascular events
  - Pancreatitis
  - Ischemic colitis
  - Gastrointestinal oncologic emergencies
  - Gastrointestinal opportunistic infections related to chemotherapy
  - Barrett’s Esophagus
Organize the team’s performance at teaching rounds.
Read textbook and pertinent literature materials concerning problems encountered, especially related to GI oncology
Teach medical students and other trainees about GI 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 gastrointestinal literature for the management of GI oncological patients
- Know the best practice patterns to facilitate gastroenterology 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 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, including annual Faculty Meeting attendance, Fellow Curriculum Committee participation and Program Director meetings, when requested.

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 and billing skills to practice cost-effective care.
- Assist other trainees in the utilization of appropriate healthcare resources for the best care of the GI Consult 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 M.D. Anderson Consult Rotation 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 gastroenterology 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.

- **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.

- Secure expertise in the diagnosis and management of acute and chronic inpatient gastrointestinal diseases including:
  - Uncommon Gastrointestinal cancer diagnosis
  - Diagnosis of GI and hepatic complications of bone marrow transplant (including specifically graft versus host disease, venoocclusive
disease, opportunistic infection)
  - Diagnosis of GI complications of chemotherapy and radiation therapy, including anemia, thrombocytopenia and neutropenia
  - Complicated acid-peptic disease
  - Motility disturbances associated with gastrointestinal malignancies
  - Appropriate assessment and treatment options for GI cancer
  - Mesenteric vascular events
  - Pancreatitis
  - Ischemic colitis
  - Gastrointestinal oncologic emergencies
  - Difficult to treat gastrointestinal opportunistic infections related to chemotherapy
  - Barrett’s Esophagus
  - Neuroendocrine gastrointestinal malignancies
  - Intestinal/colonic pseudobstruction
  - Secretory diarrheal states
  - Idiopathic abdominal pain
  - Upper & lower GI bleeding
  - Colon cancer
  - Barrett’s Esophagus
  - Pancreatic Cancer
  - GI oncologic emergencies

- Provide inpatient care that is safe and compassionate with the leadership ability to thoroughly and clearly educate the inpatient 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 and hepatology problems encountered.
- Assume the trainee leadership role at core conferences and teaching rounds regarding the pathophysiology, epidemiology, cancer
  screening, disease management, procedures and medicine management skills for common and uncommon inpatient gastrointestinal
diseases including:
  - Uncommon Gastrointestinal cancer diagnosis
  - Diagnosis of GI and hepatic complications of bone marrow transplant (including specifically graft versus host disease, venoocclusive
disease, opportunistic infection)
  - Diagnosis of GI complications of chemotherapy and radiation therapy, including anemia, thrombocytopenia and neutropenia
  - Complicated acid-peptic disease
  - Motility disturbances associated with gastrointestinal malignancies
  - Appropriate assessment and treatment options for GI cancer
  - Mesenteric vascular events
  - Pancreatitis
  - Ischemic colitis
  - Gastrointestinal oncologic emergencies
  - Difficult to treat gastrointestinal opportunistic infections related to chemotherapy
  - Barrett’s Esophagus
  - Neuroendocrine gastrointestinal malignancies
  - Intestinal/colonic pseudobstruction
  - Secretory diarrheal states
  - Idiopathic abdominal pain
  - Upper & lower GI bleeding
Colon cancer
Barrett’s Esophagus
Pancreatic Cancer
GI oncologic emergencies

- 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 gastrointestinal literature for the management of GI patients, 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 gastroenterology care through operating procedures and patient interactions. Attend to the special requirements of a gastroenterologist in a community practice setting.

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 Year I fellows in professional conduct.
- Assist in formal teaching exercises as requested.
- Assert leadership in program planning, including fellow participation in the annual Faculty/Fellow Meeting, Fellow Curriculum Committee and Conference Planning Committees.

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 Consult Service’s patients, including proper documentation.
- 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 Inpatient Consult Service at The University of Texas M.D. Anderson Cancer during all three fellowship years. One fellow is assigned to this 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.

The Inpatient Consult Service at The University of Texas M.D. Anderson Cancer experience will prepare the fellow to evaluate and manage acute and chronic gastrointestinal illnesses with emphasis in oncology that will be encountered in the fellow’s future practice. Inpatient rounding will be part of this rotation. This Service will expose the fellow to a wide variety of general gastrointestinal pathology with emphasis in management GI oncological problems.

Fellows assigned to this service will evaluate all consults at M.D. Anderson Inpatient Consult Service and will be assigned to a continuity clinic one-half day per week. They will present new consults to the attending by the following day for routine consults and as soon as possible for...
emergencies. Fellows will evaluate each patient and will make initial recommendations regarding diagnostic tests and treatments. They will make arrangements for studies such as endoscopy, motility tests, biopsies, etc. 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 Inpatient 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:
Encounters are inpatient in nature during this rotation. Fellows provide 24/7 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 at M.D. Anderson cancer Center seven days per week, and in-house supervision is available all night as well. The attending has ultimate responsibility for patients.

Procedures:
During this rotation, procedures are performed during daytime hours in the GI lab by the fellow under the direct supervision of the attending.

Evaluation:
Fellows are evaluated during the M.D. Inpatient Consult 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 attending 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) must be organized to review program goals and objectives and the effectiveness with which they are achieved. This group must conduct 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.

Contact:
Sushovan Guha, MD, PhD, is the Site Supervisor for the UT M.D. Anderson Inpatient Consult Service Rotation.

Bibliography:

- Resource Documents
  - PubMed
  - Textbook of Gastroenterology – Yamada, et.al.
  - Gastrointestinal Disease: Pathophysiology Diagnosis Management – Sleisenger & Fordtran.
  - Major Gastroenterology journals online and in the program’s fellow library including Gastroenterology, American Journal of Gastroenterology, Gut, 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:
- Textbook of Gastroenterology – Yamada, et.al.
- Gastrointestinal Diseases: Pathophysiology Diagnosis Management – Sleisenger & Fordtran.

Competencies-at-a-Glance
M.D. Anderson Inpatient Consult Service

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The M.D. Anderson Inpatient 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.

Revised
June 2011/ DuPont
UT M.D. Anderson Cancer Center  
Outpatient Endoscopy Rotation  
Curriculum for Year I, II & III Fellows

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 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 placement.
  - 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
  - Observe gastrointestinal bleeding in oncological patients
  - Nutrition counseling in oncological patients

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
  - Observe 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**
  - PubMed
  - *Gastrointestinal Disease: Pathophysiology Diagnosis Management* – Sleisenger & Fordtran.
  - *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:**
  - *Gastrointestinal Disease: Pathophysiology Diagnosis Management* – Sleisenger & Fordtran.
  - *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.

Revised
June 2011/ DuPont
The Methodist Hospital
Rotation
Curriculum for Year II & III Fellows

Educational Purpose:

The Methodist Hospital introduces the fellow to both outpatient and inpatient hospital management of patients with gastrointestinal diseases. During this four-week rotation, fellows will work directly with faculty and community-based gastroenterologists for both clinic and inpatient work. During this period, the fellow will have the opportunity to assess a wide variety of acute and chronic gastrointestinal conditions and will receive specialized exposure to advanced endoscopic procedures; given that The Methodist Hospital is a facility that takes care of a significant number of outside patient referrals for these types of procedures. The fellow will participate in increasing levels of management/treatment involvement with patient needs and procedures, depending on the fellow's level of experience. The fellow will be expected to formulate the differential diagnosis, institute diagnostic studies and recommend therapy. The amount of learning obtained from this rotation is directly proportional to the amount of time spent in the evaluation of the patients.

Objectives:

Fellows will learn all aspects of inpatient and outpatient gastrointestinal care and will display all general competencies during this experience. 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 Methodist Hospital Rotation:

Year II Fellow:

Goal: A Year II fellow should learn to assess and care for a larger volume of patients 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.
- Complete competency-level performance of the following basic gastroenterology 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.
  - ERCP and EUS
    - Should understand the indications of these procedures as well as risks and benefits of such procedures.
    - Passage of side viewing endoscope and visualization of the ampulla of vater.

- Develop clear expertise in the diagnosis and management of acute and chronic inpatient gastrointestinal diseases including:
  - Neuroendocrine diagnosis
  - Intestinal/colonic pseudobstruction
  - Secretory diarrheal states
  - Idiopathic abdominal pain
  - Upper & lower GI bleeding
  - Peptic ulcer disease
  - Inflammatory bowel disease
  - GI infections
- Pancreatitis (acute and chronic)
- Ischemic colitis
- Bile duct stones
- Biliary and liver cancer
- Post-operative injuries to the liver, bile ducts and pancreas
- Barrett’s Esophagus

- Present cases succinctly in a direct manner.
- Know The Methodist Hospital patients at a management level.
- Handle consult calls respectfully and appropriately.
- Teach good symptom management skills to other trainees.
- Provide inpatient care that is safe and compassionate and develop the ability to thoroughly and clearly educate the inpatient 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 inpatient gastrointestinal diseases including:
  - Neuroendocrine diagnosis
  - Intestinal/colonic pseudobstruction
  - Secretory diarrheal states
  - Idiopathic abdominal pain
  - Upper & lower GI bleeding
  - Peptic ulcer disease
  - Inflammatory bowel disease
  - GI infections
  - Pancreatitis (acute and chronic)
  - Ischemic colitis
  - Colon cancer
  - Pancreatic cancer
  - Bile duct stones
  - Biliary and liver cancer
    - Post-operative injuries to the liver, bile ducts and pancreas
  - Barrett’s Esophagus
- Organize the team’s performance at teaching rounds.
- Read textbook and pertinent literature materials concerning problems encountered, especially related to GI cancers
- Teach other trainees about GI 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 gastrointestinal literature for the management of GI patients.
- Know the best practice patterns to facilitate gastroenterology 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 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 other trainees 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, including annual Faculty Meeting attendance, Fellow Curriculum Committee participation and Program Director meetings, when requested.

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 The Methodist Hospital.
• Understand and practice proper documentation and billing skills to practice cost-effective care.
• Assist other trainees in the utilization of appropriate healthcare resources for the best care of the GI Hospital 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 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 Methodist Hospital 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 gastroenterology procedures pertinent to his/her career choices:
  o 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.
  o 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.
  o ERCP
    • Cannulation of bile duct and perform sphincterotomy and placement of bile duct stents.
      • Pancreatic divisum
      • Congential biliary abnormalities
      • Biliary strictures and primary sclerosing cholangitis
      • Management of bile duct injuries related to trauma

• Secure expertise in the diagnosis and management of acute and chronic inpatient gastrointestinal diseases including:
  o Neuroendocrine diagnosis
  o Intestinal/colonic pseudobstruction
  o Secretory diarrheal states
  o Idiopathis abdominal pain
  o Upper & lower GI bleeding
  o Peptic ulcer disease
  o Inflammatory bowel disease
  o GI infections
  o Pancreatitis (acute and chronic)
  o Ischemic colitis
Colon cancer  
Barrett’s Esophagus  
Pancreatic Cancer  
Bile duct stones

- Secure expertise in the diagnosis and management of acute and chronic inpatient pancreaticobiliary diseases including:
  - Acute Pancreatitis
  - Chronic Pancreatitis
  - Pancreatic Cancer
  - Pancreatic divisum
  - Congenital biliary abnormalities
  - Biliary strictures and primary sclerosing cholangitis
  - Pancreatic necrosis
  - Management of bile duct injuries related to trauma
  - Bile Duct Stones
  - Liver Cancer
  - Biliary Cancer
  - Post-Operative Injuries to the Liver, Bile Ducts & Pancreas

- Provide inpatient care that is safe and compassionate with the leadership ability to thoroughly and clearly educate the inpatient 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 and hepatology problems encountered.
- Assume the trainee leadership role at core conferences and teaching rounds regarding the pathophysiology, epidemiology, cancer screening, disease management, procedures and medicine management skills for common and uncommon inpatient gastrointestinal diseases including
  - Neuroendocrine diagnosis
  - Intestinal/colonic pseudobstruction
  - Secretory diarrheal states
  - Idiopathic abdominal pain
  - Upper and lower GI bleeding
  - Peptic ulcer disease
  - Inflammatory bowel disease
  - GI infections
  - Pancreatitis
  - Ischemic colitis
  - Colon cancer
  - Barrett’s Esophagus
  - Pancreatic Cancer
  - Pancreatic divisum
  - Congenital biliary abnormalities
  - Biliary strictures and primary sclerosing cholangitis
  - Pancreatic necrosis
  - Management of bile duct injuries related to trauma

- Teach medical students, other trainees and Year 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 gastrointestinal literature for the management of GI patients, 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 gastroenterology care through clinic operating procedures and patient interactions. Attend to the special requirements of a gastroenterologist in a community practice setting.
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 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 Year II fellows in professional conduct.
- Assist in formal teaching exercises as requested.
- Assert leadership in program planning, including fellow participation in the annual Faculty/Fellow Meeting, Fellow Curriculum Committee and Conference Planning Committees.

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 The Methodist Hospital healthcare resources for the best care of the GI Hospital Service’s patients, including proper documentation and billing 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 Methodist Hospital during their second or third fellowship years. One fellow is assigned to this service during all rotations. Teaching of 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.

The Methodist Hospital Rotation experience will prepare the fellow to evaluate and manage acute and chronic gastrointestinal illnesses that will be encountered in the fellow’s future practice. Inpatient rounding, clinic responsibilities and exposure to gastroenterology in a community practice setting will be part of this rotation. The Methodist Hospital Rotation will expose the fellow to a wide variety of acute abdominal inflammatory processes, major gastrointestinal hemorrhages, pancreato-biliary pathology and a wide variety of gastrointestinal problems.

Fellows assigned to this rotation will evaluate all new consults at The Methodist Hospital and will be assigned to a continuity clinic one-half day per week. They will present new consults to the attending by the following day for routine consults and as soon as possible for emergencies. Fellows will evaluate each patient and will make initial recommendations regarding diagnostic tests and treatments. They will make arrangements for studies such as endoscopy, motility tests, biopsies, etc. 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:
The Methodist Hospital has a substantial primary care basis, which provides the entire spectrum of internal medicine diagnoses and gastrointestinal care, allowing the Fellows to see a complete mix of gastrointestinal diseases.

Diagnoses range from pancreatitis, inflammatory bowel disease, and functional GI motility and pain disorders to primary and secondary gastrointestinal malignancies, and there is an appropriate concentration of common gastrointestinal diseases such as peptic ulcer disease, gastroesophageal reflux disease and gastrointestinal infections. In particular, The Methodist Hospital is a state and international referral center, and there is outstanding diversity of unusual diagnoses in the teaching services.

Patient Characteristics:
The Methodist Hospital Rotation 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:
Encounters are inpatient in nature during The Methodist Hospital Rotation. Fellows provide 24/7 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 at The Methodist Hospital seven days per week, and in-house supervision is available all night as well. The attending has ultimate responsibility for patients.

Procedures:
During The Methodist Hospital Rotation, procedures are performed during daytime hours in the GI lab by the fellow under the direct supervision of the attending.

Evaluation:
Fellows are evaluated during The Methodist Hospital Rotation by the faculty. 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. Faculty evaluate fellows, and the fellows evaluate the attending and rotation. 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.
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- The Program Director meets with all fellows individually twice per year.
- An in-service GTE exam is given to all fellows annually.

Contact:
Alberto Barroso, MD is the appointed Site Supervisors for The Methodist Hospital Rotation.

Bibliography:
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  - Graduate Education in Internal Medicine: A Resource Guide to Curriculum Development
  - The report of the Federated Council for Internal Medicine Task Force on the Internal Medicine Residency
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The Methodist Hospital

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**Additional Instructions for Fellows Participating in the Methodist Rotation:**

**I. Patient Care**

A. **Consultations/inpatient admissions:** Consultations and inpatient admissions are evaluated by the fellow on service on the day they are called in. They are to be written up and presented to the attending on service. Additionally, the attending should be notified of any urgent consultations or admissions as soon as possible, particularly if a same-day procedure is anticipated.

C. **Pre-procedure evaluation:** The fellow is expected to pre-round on inpatients in the morning prior to beginning the day’s procedures. If issues arise, the attending on service should be contacted as soon as possible. A pre-review of all outpatients slated for procedures that day should similarly be completed. A thorough patient history, physical exam, and a review of the laboratory and radiologic data should be performed prior to ERCP. The history should be obtained sufficiently in advance to permit procedural changes as warranted (e.g., general anesthesia, correction of coagulation factors, set-up of sphincter of Oddi manometry, enrollment in an ongoing protocol, etc.). The attending physician and the fellow are expected to discuss the case in detail prior to proceeding, so that both are in agreement regarding the procedure. All inpatients should be seen daily, and a note should be written prior to attending rounds. Attending rounds will be performed daily after all procedures have been completed. All admissions and consultations will be seen on the day they are called, with rare exceptions as approved by the attending on service.

D. **Intraoperative:** The fellow will assist the attending in performance of the ERCP procedure. The goals for the fellow are to build a solid foundation in patient assessment, approach to the procedure, endoscopic technique, and familiarity with accessories (such as wires, catheters, stents, etc.) as well as the workings of the ERCP team. The number of "successful cannulations, papillotomies, guide wire placements, etc." performed should not, by any means, be considered the ultimate measure of success. These come with time, as skills mature. Since the risks of therapeutic ERCP are equal to those of many surgical procedures, factors such as patient care and safety must remain paramount. Certain cases (high risk, difficult/prior failed procedure, pediatric, etc.) may be considered attending-only cases insofar as the actual performance of the procedure is concerned, and limitation of the fellow’s participation in the case will be at the discretion of the attending. However, the observant fellow will learn a great deal in assisting the attending and watching vigilantly. Such non-hands-on participation is important to the learning process.

E. **Postoperative:**
   a. **Inpatients:** Postop orders are to be written immediately after the procedure is completed. Pertinent postop data must be entered into the database and a preliminary report generated, signed, and placed on the chart before the patient leaves the GI lab. The attending will be responsible for dictating the procedure note. All inpatients who undergo a procedure must be seen on evening rounds, and a post-procedure check must be documented on the chart. The pancreatico-biliary service will be responsible for ALL aspects of the immediate postoperative management, as occurs on a surgical service. The pancreatico-biliary fellow on service will keep their pagers on, and will be immediately accessible within pager range, 24
hours a day, 5 days per week, respectively while on service, with no exceptions. On Friday, the fellow will sign out to the on-call GI team. On Monday am the pancreaticobiliary fellow will take report from the GI team for Sunday’s events/admissions. The pancreaticobiliary attending will leave their beepers on 24Hr/7Day to serve as a back-up for the fellow and GI team on weekends for complex cases and for call-ins for emergency procedures.

b. **Outpatients**: Outpatient post-procedure follow-up mirrors the inpatient model.

c. If the fellow has personal business which would interfere with his/her responsibilities while on service, special coverage arrangements must be made in advance with the attending. *Fellow cross coverage is acceptable only if the cross-covering fellow has had prior experience with ERCP and has been adequately familiarized with the patients on the service.* The service fellow will remain responsible for assuring that cross-coverage proceeds smoothly.

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I. **Rotation Schedule** ........................................................................................................... Appendix A

II. **Call Schedule** .................................................................................................................. Appendix B

III. **Conference Schedules** .................................................................................................. Appendix C
IV. Forms ...................................................................................................................... Appendix E