

**GI Procedure Service
At LBJ General Hospital
Curriculum for Year I, II & III Fellows**

Educational Purpose:

The Procedure Service 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 procedure fellow will assume responsibility for presenting cases and/or preparing topics or other relevant material for presentation at the monthly Endoscopy Quality Improvement Conference.** The amount of learning obtained from this rotation is directly proportional to the amount of time spent conducting procedures and conferring with supervising attendings. (revised 11.2009 L. Scott and F. Lukens.)

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 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 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 la 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/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 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 mix 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.
 - *Complications of colonoscopy* in *Gastrointestinal Endoscopy*. 57(4), 2003.
 - *Complications of Upper GI Endoscopy* in *Gastrointestinal Endoscopy*. 55(7), 2002.
 - 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
 - The report of the Federated Council for Internal Medicine Task Force on the Internal Medicine Residency Curriculum, 1997.
- Pertinent Teaching References:
 - *Textbook of Gastroenterology* – Yamada, et.al.
 - *Gastrointestinal Disease: Pathophysiology Diagnosis Management* – Sleisenger & Fordtran.

**Competencies-at-a-Glance
GI Hospital Service**

COMPETENCY	LEARNING OPPORTUNITY	EVALUATION
Patient Care	<ul style="list-style-type: none"> ▪ Work Rounds ▪ Teaching Rounds ▪ Conferences 	<ul style="list-style-type: none"> ▪ 360-global evaluations ▪ GTE in-service exam ▪ Direct Observation
Medical Knowledge	<ul style="list-style-type: none"> ▪ Work Rounds ▪ Teaching Rounds ▪ Conferences 	<ul style="list-style-type: none"> ▪ 360-global evaluations ▪ GTE in-service exam
Practice-Based Learning	<ul style="list-style-type: none"> ▪ Quarterly M&M Conference ▪ Work Rounds 	<ul style="list-style-type: none"> ▪ 360-global evaluations ▪ Direct Observation
Interpersonal Skills	<ul style="list-style-type: none"> ▪ Work Rounds 	<ul style="list-style-type: none"> ▪ 360-global evaluations
Professionalism	<ul style="list-style-type: none"> ▪ Work Rounds ▪ Conferences 	<ul style="list-style-type: none"> ▪ 360-global evaluations
Systems-Based Practice	<ul style="list-style-type: none"> ▪ Committee Participation ▪ Grand Rounds (GI & Medical) ▪ Conferences 	<ul style="list-style-type: none"> ▪ 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.

May 2009, revised F. Lukens, MD