

Gastroenterology Pancreaticobiliary Consultation Service (PBS)
Memorial Hermann Hospital Texas Medical Center
&
HCHD: Lyndon B. Johnson General Hospital
Curriculum for PGY 4, 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 trainees' 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
 - Pancreatic 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 pancreaticobiliary 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 pancreaticobiliary literature related to patient management.
- Know the best practice patterns to facilitate pancreaticobiliary 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).

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 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 pancreatobiliary service will be responsible for ALL aspects of the immediate postoperative management, as occurs on a surgical service. The pancreatobiliary 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 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. 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 pancreaticobiliary 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 pancreaticobiliary 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
 - *Up-To-Date*
 - *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.
 - *Gastrointestinal Endoscopy*: the *Journal of the American Society for Gastrointestinal Endoscopy*, the endoscopy journal with the widest circulation throughout the world (monthly).
 - *Endoscopy*: the *Journal of the European Society for Gastrointestinal Endoscopy* (monthly).
 - *Pancreas*: the *Journal of the American Pancreatic Association*.
 - *Gastrointestinal Endoscopy Clinics of North America* (quarterly).
 - *Annual of Gastrointestinal Endoscopy* (annual review of therapeutic endoscopy literature worldwide).
 - *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
 - 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.

COMPETENCY	Competencies-at-a-Glance Pancreaticobiliary Service 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

- Committee Participation
- Grand Rounds (GI & Medical)
- Conferences
- 360-global evaluations
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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:

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