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</table>
Welcome to the University of Pittsburgh Division of Gastroenterology, Hepatology and Nutrition and the Transplant Hepatology Fellowship Program. This program seeks to select, develop and mentor young gastroenterologists in a thoughtful and scholarly manner to prepare them for a career in Transplant Hepatology. We are pleased that you will join us for the coming year.

This training manual will provide a basic overview of this program as well as reviews of fellow service responsibilities. Additional regulatory information and documentation from recent University memos and publications is also provided.

Our Division has a strong commitment to monitoring and evaluating the Transplant Hepatology Fellowship. Your comments and suggestions will be welcomed at every opportunity.

Kapil B. Chopra, MD
Professor of Medicine
Medical Director, Comprehensive Liver Program, UPMC Liver Pancreas Institute
Program Director, Transplant Hepatology Fellowship Program

Shahid M. Malik, MD
Clinical Assistant Professor of Medicine
Associate Program Director, Transplant Hepatology Fellowship Program
Division of Gastroenterology, Hepatology & Nutrition
University of Pittsburgh School of Medicine

FACULTY

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Associate Professor of Medicine

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Professor of Medicine
Program Director, Transplant Hepatology Fellowship

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Professor of Pathology
Director, Division of Transplant Hepatology

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Clinical Professor of Medicine
Associate Chief for Translational Research

Fadi Francis, MD
Assistant Professor of Medicine

Paulo A.C. Fontes, MD
Associate Professor of Surgery

Christopher Hughes, MD
Associate Professor of Surgery
Director, Liver Transplant Transplantation Surgery

Abhinav Humar, MD
Professor of Surgery – Chief, Transplant Division – Clinical Director, Thomas E. Starzl Transplantation Institute

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Assistant Professor of Medicine

Naudia Jonassaint, MD, MHS
Assistant Professor of Medicine

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Assistant Professor of Surgery
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Clinical Assistant Professor of Medicine
Associate Program Director, Transplant Hepatology Fellowship

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Professor of Pathology & GI Oncology

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Professor of Pathology

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Clinical Director, Hepatology
Medical Director, Transplantation

Obaid S. Shaikh, MD
Professor of Medicine

Amit Tevar, MD
Associate Professor of Surgery

Mitchell Tublin, MD
Professor of Radiology

*ADJUNCT

2015-16 Transplant Hepatology Fellow

Hemamala Ilango, MD
Primary Division Contact Information:

Division of Gastroenterology, Hepatology and Nutrition
University of Pittsburgh
PUH – Mezz. 2 – C Wing
200 Lothrop Street
Pittsburgh, PA  15213

Center for Liver Diseases
900 Kaufmann Building
3471 Fifth Avenue
Pittsburgh, PA  15213

**Contact:**

<table>
<thead>
<tr>
<th>Program Director, Transplant Hepatology Fellowship</th>
<th>TEL: 412-647-4932 (Cathy Freehling, secr.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kapil B. Chopra, MD</td>
<td>TEL: 412-802-6365 (direct)</td>
</tr>
<tr>
<td></td>
<td>PAGER: short range: 7301; long range: 958-0340</td>
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<tr>
<td></td>
<td><a href="mailto:Kbc13@pitt.edu">Kbc13@pitt.edu</a></td>
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<tr>
<th>Associate Program Director, Transplant Hepatology Fellowship</th>
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<tr>
<td>Shahid M. Malik, MD</td>
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<tr>
<td>TEL: 412-647-4932 (Cathy Freehling, secr.)</td>
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<tr>
<td>TEL: 412-647-7443 (direct)</td>
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<tr>
<td>PAGER: short range: 5708; long range: 958-4560</td>
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<tr>
<td><a href="mailto:maliks@upmc.edu">maliks@upmc.edu</a></td>
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<tr>
<th>Program Coordinator, Fellowship</th>
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<tbody>
<tr>
<td>Kim Luketic</td>
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<tr>
<td>TEL: 412-648-9241</td>
</tr>
<tr>
<td>FAX: 412-648-9378</td>
</tr>
<tr>
<td><a href="mailto:luketicka@upmc.edu">luketicka@upmc.edu</a></td>
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<tr>
<th>Director, Digestive Health Programs</th>
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<tbody>
<tr>
<td>Joy Jenko Merusi, MA</td>
</tr>
<tr>
<td>TEL: 412-578-9518</td>
</tr>
<tr>
<td>FAX: 412-578-9537</td>
</tr>
<tr>
<td><a href="mailto:joj2@pitt.edu">joj2@pitt.edu</a></td>
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<tr>
<th>Program Director, GI Fellowship</th>
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<tbody>
<tr>
<td>Kenneth E. Fasanella, MD</td>
</tr>
<tr>
<td>TEL: 412-647-9325 (Emily O'Connor, secr.)</td>
</tr>
<tr>
<td>TEL: 412-383-5365 (direct)</td>
</tr>
<tr>
<td><a href="mailto:Fasanellake@upmc.edu">Fasanellake@upmc.edu</a></td>
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<table>
<thead>
<tr>
<th>Associate Program Director, GI Fellowship</th>
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<tbody>
<tr>
<td>Jason M. Swoger, MD, MPH</td>
</tr>
<tr>
<td>TEL: 412-624-7692 (Paula Conwell, secr.)</td>
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<tr>
<td>TEL: 412-578-9520 (direct)</td>
</tr>
<tr>
<td><a href="mailto:swogerjm@upmc.edu">swogerjm@upmc.edu</a></td>
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<tr>
<th>Center for Liver Diseases</th>
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<tbody>
<tr>
<td>TEL: 412-647-1770 or 1-800-447-1851</td>
</tr>
<tr>
<td>FAX: 412-647-9268</td>
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<tr>
<th>Academic Main Number (M2)</th>
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<tbody>
<tr>
<td>Marlaine Moore, receptionist</td>
</tr>
<tr>
<td>TEL: 412-648-9115</td>
</tr>
<tr>
<td>FAX: 412-648-9378</td>
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<table>
<thead>
<tr>
<th>Digestive Disorders Center (DDC) @ PUH</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEL: 412-647-8666 or 1-866-4-GASTRO (1-866-442-7876)</td>
</tr>
<tr>
<td>FAX: 412-647-6446</td>
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<tr>
<th>GI Lab @ PUH</th>
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<tbody>
<tr>
<td>TEL: 412-647-3780</td>
</tr>
<tr>
<td>FAX: 412-647-1017</td>
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<tr>
<th>GI Services @ Magee Womens Hospital</th>
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<tr>
<td>TEL: 412-641-2096</td>
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<tr>
<td>FAX: 412-641-2085</td>
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Transplant Hepatology Policies,
Responsibilities and Related Information
CRITERIA FOR TRANSPLANT HEPATOLOGY FELLOWSHIP PROGRAM SELECTION

The following criteria are used by the University of Pittsburgh Division of Gastroenterology, Hepatology and Nutrition to select fellows:
- Successful completion of an ACGME-accredited gastroenterology fellowship program.
- Passing USMLE Boards with excellent board scores preferred.
- Strength of recommendation letters from previous physician mentors.
- Strength of research credentials.
- Earned awards/honors.
- Dedication to an academic career.

The Program Director and Key Clinical Faculty leadership attendings meet as a group to evaluate and screen the applicants. Top candidates are invited for a personal interview. During the personal interview, fellow candidates are evaluated on the following criteria by faculty attendings:
- Educational background
- Accolades, honors and awards
- Letters of recommendation
- Research experience
- Commitment to research
- Professionalism (maturity, poise, speech, sensitivity and mannerisms).

Fellow candidates are also asked to discuss their strengths, research interests, special training experiences and possible weaknesses during personal interviews.

After all personal interviews are completed, faculty leadership and interviewers meet as a group again to evaluate the candidates and make a ranking list.

ORIENTATION

A half-day resident orientation will be held by the Graduate Medical Education (GME) office each June and July, and Transplant Hepatology fellows are required to attend one session. Topics discussed at this general orientation will include University of Pittsburgh logistics, ethics, trainee fatigue and related general issues.

An additional half-day new Transplant Hepatology fellow orientation program will be held in either June or July each year (typically during the afternoon following the GME office’s morning orientation session), and all Transplant Hepatology fellows will be required to attend. This orientation may be combined with the Division of Gastroenterology, Hepatology and Nutrition’s Gastroenterology fellowship orientation.

Orientation topics include but are not limited to:
- Overview of Transplant Hepatology fellowship program
- Introductions of select faculty and Gastroenterology fellows
- Tours of key Division clinical and research areas
- Review of rotation schedules
- Financial allowance information
- Conference information
- Clinical rotation information
- Distribution of keys and pagers
- Instructions for photo ID’s
- Related information.

Note that Transplant Hepatology fellows will be required to attend both the UPMC system-wide orientation as well as the Division’s fellow orientation, among other related training and meetings.
DUTY HOURS, ON CALL, SCHEDULING AND TIME OFF POLICIES

Duty Hour Information:
All fellows are responsible for duty hour tracking through the UPMC ROCS (Resident Online Coordination System). Appropriate duty hour compliance is mandatory for the University of Pittsburgh Transplant Hepatology Fellowship Program. Fellows are expected to adhere to the following duty hours and on call regulations.

- Fellow hours will not exceed 80 hours per week.
- Fellows will have a minimum of 10 hours off of clinical duties between work shifts.
- Fellows will have at least one day out of seven per week with no work-related activities.
- No fellow will work more than 30 continuous hours.

Any fellow duty hour violations will be noted on the GME ROCS system duty hour evaluation report. If a fellow has a violation, the program director will contact the fellow to inquire about the reason for the violation and will implement corrective action.

Directions for using the UPMC GME ROCS (Resident Online Coordination System):

- The website for viewing and approving timesheets is available through UPMC MedTrak > http://providertrak.upmc.com. Log in using UPMC Log In and Password. Once logged into MedTrak, click the left menu link for GME ROCS.
- The timesheets must be approved each week between 8:00 am Friday and 12:00 midnight on Saturday.
- If a fellow does not sign his/her time sheet by 12:00 midnight on Saturday, a paycheck will not be issued.
  - If a fellow cannot sign off, the fellow must notify the program coordinator by e-mail, and she will approve the timesheet. If the program coordinator is not e-mailed, the time sheet will not be approved, and the fellow will not receive his/her paycheck.
- The system will permit only a few changes to the schedule. For now, all other changes must be made by the program coordinator, or the fellow will need to type the changes in the comment box (i.e., and the program coordinator will then enter the new schedule information).
  - Fellows may change the start and/or end times of their shifts.
  - The program coordinator has only listed the Monday morning and Medical Grand Rounds conferences for now. If a fellow does not attend one of these conferences, the fellow must inform the program coordinator.
  - The program coordinator will enter “day off” information. Needed corrections should be reported to the program coordinator.
- Moonlighting needs to be documented through the ROCS system as well. All moonlighting work must be reported to the program director in writing via e-mail.

On Call Hours:

- On call weekday hours are 5:00 pm to 8:00 am.
- A minimum of two fellows (one may be a GI fellow) will be on call over the weekend:
  - Weekends are split, so that each fellow will be on call for 24 hours from 8:00 am on Saturday to 8:00 am on Sunday with the same for Sunday.
  - Each fellow will cover either GI or Liver/VA. On Sunday, the GI fellow will also cover the pancreaticobiliary service.
  - Fellows staying past 10:00 pm on weeknights will leave at 1:00 pm the following day.

Fellow On Call Pager Numbers:

- Hepatology = 3299
- GI = 3227

To schedule outpatient follow up for liver patients at discharge, call the Center for Liver Diseases at 412-647-1170 or give this phone number to the patient.
Scheduling Research Blocks:
Fellows must discuss research time requests with the program director, when the yearly schedule is determined. Once the schedule is set, there will be no changes. If a fellow needs to make a change, he/she must find coverage for the change. The program director will have the final say regarding any conflicts.

Fellow Illness and Emergency Leave:
Throughout training, fellows may need to call off from work/service due to illness, family emergency leave and related serious situations. The policy for calling off is as follows:
1. E-mail the program director, associate program director (if applicable) and program coordinator with the reason for this requested leave and the anticipated return date.
2. The fellow's supervising attending must be paged/contacted as well. The attending may be contacted by the fellow calling off or by the program coordinator.

Vacation Requests:
- A vacation request form (see next page of this manual for a form sample) is distributed at the beginning of the fellowship year. Time-off requests are considered when the fellow rotation master schedule is made. If these original time off requests change, fellows are to inform the program coordinator, in writing, at least one month before the change.
- Additional time off requests for vacation, conferences, etc. are to be made in writing no later than one month before the intended time off period. These requests are to be submitted to the program coordinator and are subject to approval by the program director.
- It is the obligation of the fellow who is calling off to arrange for appropriate and approved coverage. The following is a copy of the fellow vacation form that must be completed and given to the program coordinator per the instructions on the previous page of this manual.

Maternity & Paternity Leave Policies:
- Female fellows will receive six weeks off for maternity leave.
- Male fellows will receive one week off for paternity leave.
FELLOW VACATION PREFERENCES FOR 2015-2016 SCHEDULE

FELLOW NAME: ________________________________________________

DECEMBER HOLIDAY:

<table>
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<th>HOLIDAY:</th>
<th>CHRISTMAS</th>
<th>NEW YEARS</th>
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<td>CHOICE:</td>
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VACATION PREFERENCE:
(One week blocks)

Vacation approvals will be minimal during major national conferences
(Steinberg GI Board Review, ACG, AASLD, DDW, etc.) and the Second Year Medical School GI Course

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<td>THIRD</td>
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<td>FOURTH</td>
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LIFE EVENTS:
(Weddings, Births, Religious Holidays)

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<th>DESCRIPTION</th>
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ARE YOU TAKING INTERNAL MEDICINE BOARDS?       Yes____  No____
ARE YOU TAKING THE GASTROENTEROLOGY BOARDS?   Yes____  No____

COMMENTS:_____________________________________________________________________________________
________________________________________________________________________________________________
_____________________________________________________________________________________________

Please return to:
Kim Luketic – kil6@pitt.edu
Division of Gastroenterology, Hepatology and Nutrition
PUH, Mezzanine Level, C-Wing
200 Lothrop Street
Pittsburgh, PA 15213
FAX:  412 383 7580
Phone:  412 648 9241
CLINICAL ACTIVITIES AND LINES OF RESPONSIBILITY

Fellow responsibilities Related to Clinical Activities:

- **Patient Care:** Fellows' clinical education will be emphasized over service.
- **Level of Responsibility for Patient Management:** Fellows will experience increasing levels of responsibility for patient management, as they progress successfully through the training program.
- **How Supervised and By Whom:** All fellow patient care actions and responsibilities are supervised by assigned attending faculty and/or the program director through direct observation, signing off on all procedures, fellow evaluations and direct supervision for all activities. Additional information about fellow supervision may be found in the curriculum sections of this manual.

Routine Fellow Responsibilities:
Transplant Hepatology fellows do not routinely perform ancillary services such as routine blood draws, prepping patients, starting IV's, transporting patients, etc. If a fellow finds him/herself conducting these duties, he/she should report these activities to the program director for corrective action.

Continuity Clinic:
Fellows will participate in a continuity clinic one-half day per week during the entire 12 months of training.

Policy to Obtain Informed Consent:
All physicians are reminded that a very detailed policy and procedure technique has been approved by the Board of the University of Pittsburgh Medical Center and its affiliated hospitals on the mechanism by which an informed consent must be obtained. You are reminded that a patient may bring legal action against any physician who performs a procedure without obtaining Informed Consent in an approved manner. Such a physician can be convicted of battery if Informed Consent is not obtained in the approved fashion regardless of the outcome of the procedure. It is therefore imperative that all physicians have a clear understanding of the mechanism by which Informed Consent is obtained and to make sure that for each and every patient who has a procedure Informed Consent has been obtained including a full explanation of the risks involved, benefits and alternatives. Each dictation of procedures and each procedure note must specifically state that the patient understood all important risks and that the patient was fully capable of providing an Informed Consent to the procedure. Several aspects of this procedure are worth reviewing:

1. The definition of an Informed Consent approved by the health care services malpractice Act, Act III is defined as THE PHYSICIAN HAS INFORMED THE PATIENT.
2. Informed consent must in every case include a full discussion of alternatives by the physician with the patient.
3. When verbal consent is obtained, either by the telephone or direct discussion with the patient, at least two individuals must witness this consent and at least one of whom must be a nurse.
4. The means of obtaining telephone or telegraph consent are quite specific as follows
   a. If the patient is unable to consent and the person legally responsible for providing consent for the patient (minor, mental incompetent, other) is unable to come to the Hospital to sign the consent form, telephone consent is permissible.
   b. This consent must be witnessed by two individuals on extensions of the same line who must sign the witness section of the consent form.
   c. The means of obtaining the consent (telephone number and the time obtained) should be noted on the consent form.
5. Physicians are urged to use caution on the judgment of the patient's capacity to provide informed consent, particularly in any situation which is clearly not an emergency. The specific wording used to describe the indications for obtaining consent from the patient's family or legal guardian includes the very vague and broad concept that the patient may not be competent whenever “a physician or nurse has CAUSED TO DOUBT the medical capacity of the patient to consent” or to “understand the nature of the proposed treatment or procedure”. Note that this is a very broad definition where any doubt as to the patient’s capacities to fully understand the nature of the procedure or treatment requires additional consultation with the patient's family or legal guardian. This is particularly true of patients who may show signs of encephalopathy.
6. The specific responsibilities for the physician in obtaining an informed consent are rather significant. These are:
   a. The physician/surgeon must explain to the patient the material aspects of the nature of the proposed procedure or treatment, the risks involved, and the alternative to treatment or diagnosis.
i. The physician should use layman’s terms during the explanation.
ii. If a language barrier exists, a foreign language bank is available to obtain an interpreter.

b. The physician will enter on the order sheet the exact wording of the procedure(s) or treatment(s) planned and the physician who will perform the procedure.
c. The physician’s procedure note must reflect that the physician has discussed the proposed procedure/treatment, the risks involved, and the alternatives to treatment with the patient.

RESEARCH

Fellows are expected to dedicate a block of time to a research project. Fellows will be supervised by research faculty during their research blocks. Fellows are expected to maintain their continuity clinic during the research block experience. Before the end of training, fellows must demonstrate evidence of recent research productivity through one or more of the following:

- Publications (manuscripts or abstracts) in peer reviewed journals; and/or
- Abstracts presented at national subspecialty meetings.
**ROTATION ALLOCATIONS:**

Transplant Hepatology Fellows will participate in the following rotation allocations:

- Inpatient Liver Consult Rotation 3 months
- Outpatient Transplant/General Hepatology Rotation 5 months
- Transplant Surgery Rotation 2 months
- Research Rotation 2 months

**REQUIRED CONFERENCES:**

Fellows are required to attend the following conferences:

<table>
<thead>
<tr>
<th>Mandatory for Fellows</th>
<th>Conference Name</th>
<th>Description</th>
<th>Day</th>
<th>Time</th>
<th>Frequency</th>
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<tbody>
<tr>
<td>No</td>
<td>Medical Grand Rounds</td>
<td>Core curriculum</td>
<td>Fri</td>
<td>11:00 am – 12:00 pm</td>
<td>4/mo.</td>
</tr>
<tr>
<td>Yes</td>
<td>GI Grand Rounds</td>
<td>Core curriculum</td>
<td>Wed</td>
<td>5:00 – 6:15 pm</td>
<td>4/mo. Sept. thru May</td>
</tr>
<tr>
<td>Liver discussion only + M&amp;M</td>
<td>Tues. Fellows Educational Program</td>
<td>Journal club, case discussion, pathophysiology, board review, M&amp;M</td>
<td>Tues</td>
<td>7:30 – 8:30 am</td>
<td>4/mo. Sept. thru May</td>
</tr>
<tr>
<td>Yes</td>
<td>Hepatology Conference</td>
<td>Clinical cases, journal club, research, radiology/portal hypertension</td>
<td>Wed</td>
<td>7:00 – 8:00 am</td>
<td>3/mo.</td>
</tr>
<tr>
<td>Yes</td>
<td>Transplant Lecture Series</td>
<td>Didactic lectures</td>
<td>Wed</td>
<td>7:00 – 8:00 am</td>
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<tr>
<td>Yes</td>
<td>Transplant Grand Rounds</td>
<td></td>
<td>Fri</td>
<td>8:00 – 9:00 am</td>
<td>4/mo.</td>
</tr>
<tr>
<td>Yes</td>
<td>Transplant Pathology Conference</td>
<td>Liver Pathology</td>
<td>Tue</td>
<td>4:30 – 5:30 pm</td>
<td>4/mo.</td>
</tr>
<tr>
<td>Yes</td>
<td>Liver Tumor Conference</td>
<td>Multidisciplinary Conference</td>
<td>Wed</td>
<td>3:00 – 4:00 pm</td>
<td>4/mo.</td>
</tr>
<tr>
<td>Yes</td>
<td>Transplant Candidate Selection Conference</td>
<td>Multidisciplinary Conference</td>
<td>Tues</td>
<td>3:00 – 4:00 pm</td>
<td>4/mo.</td>
</tr>
<tr>
<td>Yes</td>
<td>Transplant M&amp;M Conference</td>
<td>Multidisciplinary Conference</td>
<td>Tues</td>
<td>4:00 – 4:30 pm</td>
<td>4/mo.</td>
</tr>
</tbody>
</table>

Fellows are required to attend the core conference series outlined on this page.

The UPMC Health System offers many more conferences, and fellows are invited to all of these programs. Some additional non-required conferences which Transplant Hepatology fellows regularly attend include: Pancreaticobiliary Conference, VAMC Liver Transplant Morbidity & Mortality Conference; and the VAMC Tumor Board.

Additional education concerning Palliative Medicine may be found at [http://www.aahpm.org/cgi-bin/wk CGI/search?fastfact=1&search=1](http://www.aahpm.org/cgi-bin/wk CGI/search?fastfact=1&search=1). Additional education related to physician ethics, fatigue management, communication skills and related topics (i.e., the conference series led by Dr. Frank Kroboth) may be found in a manual in the M2 conference room.
EVALUATION

The Transplant Hepatology Fellowship Program uses an online evaluation system for most program evaluations. Fellows will be registered for access to MedHub’s online evaluation forms when starting the program, and fellows will be expected to complete all evaluation submission deadlines throughout their fellowship experience. Attendings also use this online system for fellow reviews. Automatic reminders are e-mailed to any reviewer who does not meet the submission deadlines, and these reminders continue to be sent until the evaluator completes his/her evaluations. If a reviewer ranks a comment poorly, the program director is automatically informed of this ranking, so that immediate and appropriate action may be implemented to improve the issue.

Promotion/Graduation Policy:
Fellow graduation is based on adequately fulfilling the goals and objectives designed for the University of Pittsburgh Transplant Hepatology Fellowship Program. All fellows must complete core competency requirements and meet the program goals as stated in the Transplant Hepatology Fellowship Program Training Manual. Determination of promotion will be confirmed by the program director at the year-end (June) review meeting.

ACGME Resident Survey:
The ACGME distributes a mandatory survey to fellows and residents periodically throughout the ACGME’s program review cycle, typically close to the ACGME’s program review. This survey requests resident feedback on the Transplant Hepatology Fellowship Program. Aggregate, non-identified survey results are shared with the Program Director and Division leadership. The Transplant Hepatology Fellowship Program uses the ACGME Resident Survey to make program enhancements and changes and to address any fellow concerns.

Procedure Practicum: Direct Observation of Fellow by Supervising Attending
Twice per year (November/December and April/May), Transplant Hepatology fellows will receive a focused direct observation evaluation of procedural competency by a supervising attending. This evaluation will be performed on liver biopsy procedures twice per year. Ideally, the evaluating attending is the fellow’s continuity clinic attending, and this practicum should take place as part of a routine half day of procedures with that attending. However, the attending evaluator may be the inpatient attending or other faculty.

At the completion of the evaluation, the attending will provide written and verbal feedback. For any areas “not competent,” the attending will discuss area(s) requiring remediation with the fellow and will repeat the evaluation at a later date after additional training has occurred (no more than eight weeks from original evaluation). If the fellow remains “not competent” in a certain area, further remediation and training will be provided by the program.
The following is a sample of the Transplant Hepatology Fellowship Program’s direct observation evaluation form. See a reference and description of this form on the previous page of this manual.

**PROCEDURE PRACTICUM CHECKLIST**

Fellow Name:  _____________________________________ Year #:  _____________
Attending Evaluator: _____________________________________ Date: _____________

### GENERAL TO ALL ENDOSCOPIC PROCEDURES:

<table>
<thead>
<tr>
<th>Procedure Activity</th>
<th>Competent</th>
<th>Not Competent</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consents the patient for the procedure appropriately, explaining risks, benefits and alternatives of procedure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understands the safe and proper administration of sedation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate communication and orders given to nursing and technical staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generation of procedure report with appropriate recommendations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-procedure review of findings and plan with patient and family/friend</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate recognition of normal landmarks (e.g., esophageal squamocolumnar junction, appendiceal orifice)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate recognition of abnormal findings and action taken based on finding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When indicated, proper biopsy technique</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master scoping and patient manipulations to the degree that patient comfort is acceptable at the level of a beginning independent gastroenterologist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When indicated, proper snare polypectomy</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### LIVER BIOPSY

<table>
<thead>
<tr>
<th>Procedure Activity</th>
<th>Competent</th>
<th>Not Competent</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indication for procedure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procedure labs – tests of coagulation – PT, INR, platelet count</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procedure abdominal imaging – CT, MRI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Checks liver biopsy needle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identifies site for biopsy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recites patient instructions for breath holding pre-biopsy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of biopsy specimen</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-biopsy monitoring</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-biopsy discharge</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**COMMENTS:**
EXTERNAL MEETING ATTENDANCE POLICY

Attendance at national conferences is an important part of fellow career development. These meetings provide the opportunity to present research, establish academic collaborations and meet thought leaders from other institutions. These meetings often include Division faculty as course directors, moderators or presenters and provide unique experiences for fellows.

Attendance at these meetings is a privilege. Fellows not adhering to the Division's professional and academic standards may lose meeting privileges.

The following external meeting schedule is recommended for fellows:

| Transplant Hepatology Fellows | May attend AASLD or ATC meeting. |

The program director must approve requests for meeting attendance preferences different from those described above. While attending any meetings, fellows are responsible for arranging their own coverage, and this coverage plan must be approved by the program director. Acceptable reasons for attending more than one meeting per year include:
- Presentation of research (oral presentation takes priority over poster presentation);
- Fellow's research mentor indicates importance of the additional meeting for the fellow's career, and the faculty mentor discusses this with the program director; and
- A fellow elects to go to more than one conference using his/her vacation time.

Funding Support for Meeting Attendance:
- Fellow annual discretionary fund. This should be the primary funding source for GI fellow conference expenses.
- Fellow travel awards or grants. Fellow is responsible for his/her own award application.
- Research mentor funds. At the discretion of the fellow's mentor.
- Program director fellowship funds or corporate grants. These allocations will be distributed at the discretion of the program director and should not be viewed as the primary funding source for fellow meeting expenses.

PROCEDURE REQUIREMENTS

The ACGME requires fellows to have formal instruction and clinical experience, and to demonstrate competence in the following Transplant Hepatology Fellowship Program procedures:
- Performance of at least 30 percutaneous liver biopsies, including allograft; and
- Knowledge of indications, contraindications, and complications of allograft biopsies.

Additionally, fellows must have formal instruction and clinical experience in interpretation of the following diagnostic and therapeutic techniques and procedures:
- Performance of liver biopsy;
- Review of 200 native and allograft liver biopsies; and the appropriate use of ultrasound localized, laparoscopy-guided and transjugular liver biopsies;
- Liver procurements attended (deceased donor, living donor, other organ procurements);
- Liver transplant surgeries attended (deceased donor, living donor);
- Liver pathology conferences; and
- Liver transplant recipient log care.

LOG OF SUPERVISED PROCEDURES

<table>
<thead>
<tr>
<th>Patient MRN</th>
<th>Date</th>
<th>Procedure</th>
<th>Indications</th>
<th>Diagnosis with Path/Lab Reports</th>
<th>Complications</th>
<th>Supervisor's Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Fellows are required to submit procedure log forms twice per year to the program coordinator. During each of these procedure log submissions, fellows are required to submit:

- All procedures submitted since the last procedure log submission (i.e., the previous third of the year); and
- All procedures submitted since the start of their fellowship with a numerical total of each type of procedure.

The program director will sign off on all procedure logs.

POLICY FOR INPATIENT PROCEDURES IN THE PROCEDURE LAB

Attending Expectations: Start all inpatient procedures at 7:30 am WITHOUT the fellow (who will be at educational conferences). Each night, communicate the order in which the first two to three patients should be called down and whether MAC is required with the GI lab nurse. MAC is NOT mandatory for every inpatient; this is at the discretion of the inpatient attending.

Fellow Expectations: Fellows must consent the patient the night before and must write orders on the first two to three patients to ensure that they are in the GI lab at the prespecified time (beginning at 7:30am) with working IV. Fellows must ensure that the prep is adequate and that blood products are administered (when indicated). Prior to leaving the hospital, a complete list of patients must be written on the GI lab sheet in order of priority (first two or three patients should match those already communicated by the attending to the GI lab).

GI Lab Expectations: The GI lab nurse will page the attending on GI/Liver the night before to discuss the first two to three patients of the day. The GI lab nurse will also page the Nutrition attending the night before to find out which cases will be done and will require MAC (these will likely not start at 7:30am unless there is lab availability). The GI lab nurse will work with transport to ensure that patients are ready and are in the room for the attending at 7:30am. The GI lab nurse will communicate with anesthesia about which patients are scheduled for MAC. The GI lab will not page the fellow between 7:30am and 8:30am Mon. through Fri. and will work directly with the inpatient attending.

There will be exceptions to this policy such as emergencies coming in overnight which alter the schedule or personal emergencies that do not allow a start time of 7:30am, etc. In general, however, these guidelines should be followed.

SERVICES TO ADDRESS STRESS, FATIGUE AND RELATED TRANSPLANT HEPATOLOGY FELLOW NEEDS

If day-to-day patient care is unusually difficult or prolonged, or if a related emergency occurs, a fellow should inform the Transplant Hepatology fellowship program director immediately. If no other fellows are available to cover an emergency situation, a Division faculty member will provide coverage.

If a fellow is unable to perform work due to stress, the program director may remove the fellow for extended rest and, if necessary, counseling. The fellow may be referred to the Resident Fellow Assistance Program (RFAP). RFAP’s phone # is (412) 647-3669.

Additional information to help fellows to manage stress, fatigue and life/career issues may be found at >
http://www.lifecurriculum.info

UPMC Industry Relations Policy

Fellows are not permitted to solicit industry representatives. Fellows must follow all information and directions found in the UPMC Industry Relations Policy (http://www.coi.pitt.edu/IndustryRelationships/). If a fellow learns of a sponsorship opportunity, he/she should contact the director of Digestive Health Programs.
ADHERENCE TO ACGME CORE COMPETENCIES

All University of Pittsburgh's Transplant Hepatology Fellowship Program clinical rotations integrate the following core competencies into all educational offerings. Transplant Hepatology fellows are required to obtain competence in the six areas listed below to the level expected of a new practitioner. The University of Pittsburgh defines the specific knowledge, skills, behaviors, and attitudes required, and provides educational experiences as needed in order for fellows to demonstrate the following:

1. **Patient care** that is compassionate, appropriate, and effective for the treatment of health programs and the promotion of health;

2. **Medical knowledge** about established and evolving biomedical, clinical, and cognate sciences, as well as the application of this knowledge to patient care;

3. **Practice-based learning and improvement** that involves the investigation and evaluation of care for their patients, and the appraisal and assimilation of scientific evidence, and improvements in patient care;

4. **Interpersonal and communication skills** that result in the effective exchange of information and collaboration with patients, their families, and other health professionals;

5. **Professionalism**, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to patients of diverse backgrounds; and

6. **Systems-based practice**, as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.
**CURRICULUM VITAE (CV)**
Fellows are required to update CV’s twice per year and submit to the program coordinator.
A CV preparation guideline in the University of Pittsburgh's preferred format follows:

University of Pittsburgh School of Medicine
Division of Gastroenterology, Hepatology and Nutrition
Transplant Hepatology Fellow Curriculum Vitae Format Guidelines
List your last revision date on the front page of the CV (see page bottom).

**BIOGRAPHICAL**

Name:
Birth Date:
Home Address:
Birth Place:
Home Phone:
Citizenship:
Business Address:
E-mail Address:
Business Phone:
Business Fax:
Spouse Name:

**EDUCATION and TRAINING**
List entries in each section chronologically with the oldest information first and the newest information last.

**UNDERGRADUATE:**

Dates Attended  Name & Location of Institution  Degree Received & Year  Major Subject

**GRADUATE:**

Dates Attended  Name & Location of Institution  Degree Received & Year  Major Advisor & Discipline

**POSTGRADUATE:**
Include internships, residencies, fellowships and/or any other professional training experiences.

Dates Attended  Name & Location of Institution  Name of Program Director & Discipline

**ACADEMIC:**

Years Inclusive  Name & Location of Institution or Organization  Rank/Title
*Visiting prefix must be used if faculty member has been appointed pending committee review or position approval.

**NON-ACADEMIC:**
Include military or other government service

Years Inclusive  Name & Location of Institution or Organization  Rank/Title or Position

Revised: ____________
CERTIFICATION and LICENSURE

SPECIALITY CERTIFICATION:
Certifying Board Year

MEDICAL or OTHER PROFESSIONAL LICENSURE:
Licensing Board/State Year

MEMBERSHIPS in PROFESSIONAL and SCIENTIFIC SOCIETIES
Organization Year

HONORS
Title of Award Year

PUBLICATIONS
List the following categories separately and use the approved citation format. List entries in each section chronologically with the oldest information first and the newest information last.

- Refereed Articles
  - Refereed articles must be listed separately
  - Do not list articles submitted or in preparation
  - Publications must be numbered
  - Bold face your name when there are multiple authors
  - Use Index Medicus citation format.
  - List all authors. Do not use “et al”
  - Letters to the Editor should be included under “Other Publications”
- Reviews, Invited Published Papers, Proceedings of Conference and Symposia, Monographs, Books and Book Chapters
- Published Abstracts
- Other Publications

Sample Refereed Listings:

PROFESSIONAL ACTIVITIES

TEACHING:
Provide a summary of courses and tutorials taught and include numbers and types of students taught, contact hours, number of lectures, etc. Provide other lectures and seminars too.
Include ALL teaching and educational presentations, including Journal Club, GI Grand Rounds, Pathology Conference, web case writing/development, etc. Also include any presentations at any outside program (e.g., Division CME programs, nonprofit medical presentations (CCFA, NPF, etc.) and teaching medical school trainees. Please also include a list of exams taken.

See the following examples for educational listings:

2009, November  Crohn’s and Colitis Foundation of America, Patient and Family IBD Educational Conference. Clinical Trials for the IBD patient. Sheraton Station Square, Pittsburgh.


RESEARCH:
When listing funding, it is advisable to include the total dollar amount (direct plus indirect costs).

<table>
<thead>
<tr>
<th>Grant</th>
<th>Role in Project &amp; Years</th>
<th>Source &amp; Percentage of Effort</th>
<th>Inclusive $ Amount</th>
</tr>
</thead>
</table>

Current Grant Support:

Seminars and Invited Lectureships Related to Your Research:

Fellows: The research information outlined above mostly pertains to Division faculty. Please consider the following when preparing the research section of your current CV:

<table>
<thead>
<tr>
<th>Project</th>
<th>Mentor</th>
<th>Dates</th>
<th>Publications Resulting from Project</th>
<th>Awards Resulting from Project</th>
</tr>
</thead>
</table>

LIST OF CURRENT RESEARCH INTERESTS:
This can be a bullet-point list.

SERVICE:

University and Medical School
Include committee service and chairmanships, administrative appointments and assignments.

Community Activities
TRANSPLANT HEPATOLOGY FELLOW CURRICULUM:

Rotation Goals and Responsibilities
Inpatient Liver Consult Rotation
Curriculum for Transplant Hepatology Fellows

Educational Purpose:
The Inpatient Liver Consult Service provides the fellow with high-level 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 twelve months 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 for the Transplant Hepatology Fellowship Inpatient Liver Consult Rotation:

Goal: The fellow should be able to assess new patient problems, formulate and execute a treatment plan with guidance and teach basic hepatology skills to medical students and other trainees. As the year progresses the 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. With time the 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.

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.
- Complete a time-efficient history and physical examination.
- Demonstrate efficient organization of the Inpatient Liver Consult Rotation and a working knowledge of all patients.
- Demonstrate near-attending level capacity for program assessment and care planning.
- Perform with supervision the following basic procedures (see practicum):
  - 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)
- 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
- 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
- Participate in the primary evaluation, presentation, and discussion of potential transplant candidates
- Provide follow-up for at least 20 new liver transplant recipients for a minimum of 3 months from the time of their transplantation.
- Participate in the follow-up of 20 or more liver transplant recipients who have survived more than 1 year after liver transplantation, in order to gain familiarity and expertise with the management of common long-term problems.
- Participate as an observer in one cadaveric liver procurement and three liver transplant surgeries

- 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.
- Present cases succinctly in a direct manner.
- Know the Inpatient Liver Consult Service’s patients at a management level.
- Handle consult calls respectfully and appropriately.
- Teach good symptom management skills to medical students and other trainees.

Medical Knowledge Objectives:
- Attend core conferences and teaching rounds --- especially the Monday Hepatology Conference --- to learn the pathophysiology, epidemiology, disease management and procedure and medicine management skills for common and uncommon inpatient liver diseases including:
- Access and critique the medical literature regarding hepatology and gastroenterology problems encountered.
  - 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)
  - 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
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.
Participate in the primary evaluation, presentation, and discussion of potential transplant candidates
Provide follow-up for at least 20 new liver transplant recipients for a minimum of 3 months from the time of their transplantation.
Participate in the follow-up of 20 or more liver transplant recipients who have survived more than 1 year after liver transplantation, in order to gain familiarity and expertise with the management of common long-term problems.
Participate as an observer in one cadaveric liver procurement and three liver transplant surgeries

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.
- 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.

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.
- 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:
- 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.
- Begin to mentor medical students, other trainees and Year I fellows in professional conduct.

**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.
- Develop and become familiar with the e-portfolio system for personal documentation management, communication with mentors and other collaborators and related fellowship program documentation.
- 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 hepatology and transplant hepatology gastroenterology conferences (e.g., AASLD and AST conferences/courses).
- Understand and be able to work effectively related to hospital functions within UPMC and UPP.
- Understand and practice proper documentation and billing skills to practice cost-effective care.

**Duties of Hepatology Fellow**

Hepatology Fellow 1: Consult Fellow [will carry pager 3299]
Hepatology Fellow 2: Primary Fellow [will be responsible for all patients on the Primary service with CRNP]

If the Hepatology Fellow is doing an outpatient continuity clinic – the single Hepatology Fellow will serve as the Consult Fellow

- Evaluation of patients admitted to Primary Service
- Evaluation of Hepatology Consults – complete consultation notes and follow up progress notes
- Serve as resource to Hepatology CRNP
- Ensuring Follow Up on Discharge: PCP; local GI MD and CLD Physician/Mid-Level [use Epiccare with note to CLD scheduling]
- Ensuring Follow Up on Discharge: STI Clinic [work with Transplant coordinator]
- Script for Labs on Discharge
- Communication with PCP; local GI MD - Send copy of Discharge Summary

**SAMPLE Structure of Hepatology Rounds:**

**Weekdays: Monday to Friday**

7:00 – 7:30 AM  CRNP/Hepatology Fellow/Hepatology Attending will take sign out assignments of patients to CRNP/Hepatology Fellows

7:30 – 10:00 AM  CRNP/Hepatology Fellow Rounds

7:30 – 10:00 AM  GI Endoscopy
10:00 AM  Multidisciplinary Meeting (Monday-Friday)
10:30AM-12PM Clinical Rounds with Fellows
12:30 – 1:30 PM Hepatology Teaching – Case Based [Wednesday/Thursday]
1:30 – 4:30 PM Data Review
Radiology Abdominal Imaging Review
Liver Pathology Review
Documentation of Notes
4:30 PM  Hepatology Attending Wrap-Up Rounds
6:00 PM  Sign out by CRNP/Hepatology Attending

**Weekends/Holidays**

7:00 – 7:30 AM CRNP/Hepatology Fellow/Hepatology Attending will take sign out assignments of patients to CRNP/Hepatology Fellows
7:30 – 10:00 AM CRNP/Hepatology Fellow Rounds
10:00 AM  Hepatology Attending Rounds
4:30 PM  Hepatology Attending Wrap-Up Rounds
6:00 PM  Sign out by CRNP/Hepatology Attending

**Teaching Methods:**
Transplant hepatology fellows participate in the Inpatient Liver Consult Rotation throughout the fellowship year. 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 Liver Consult 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 Starzl Transplant Institute, Montefiore University Hospital. 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 UPMC Presbyterian and Montefiore 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 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 Inpatient Liver Consult Rotation’s teaching hospitals. UPMC Presbyterian, UPMC Montefiore and the Starzl Transplant Institute 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. In particular, UPMC Presbyterian/UPMC Montefiore and the Starzl Transplant Institute comprise a tri-state and international referral center, and there is outstanding diversity of unusual diagnoses in the teaching services.

**Patient Characteristics:**
UPMC Presbyterian and UPMC Montefiore 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 (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.

**Supervisory Roles and Knowledge of Service**
Medical students and residents rotate on the consult services frequently. It is the fellow’s responsibility to supervise the trainees’ patients and to help them prepare their presentations prior to discussion with the attending. All consults seen by residents or students must be reviewed by a fellow prior to presentation to the service attending. Moreover, any patient seen by a resident or student must be followed by a fellow, and each fellow on service must know every patient.

**Types of Clinical Encounters – Attending Supervision:**
Encounters are inpatient in nature during the Inpatient Liver Consult Service. 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 at both UPMC Presbyterian and UPMC Montefiore seven days per week, and in-house supervision is available all night as well. The attending has ultimate responsibility for patients.

**Procedures:**
During the Inpatient Liver Consult Service, emergency procedures (e.g., for acute 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:**
Transplant Hepatology fellows are evaluated during all Inpatient Liver Consult Service rotations. 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;
  - 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 Transplant Hepatology Fellowship Program annually through a confidential basis.
• Attendings evaluate the Transplant Hepatology 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 fellows’
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.

Bibliography:
• Resource Documents
  o Up-To-Date
  o PubMed
  o Textbook of Gastroenterology – Yamada, et.al.
  o Gastrointestinal Disease: Pathophysiology Diagnosis Management – Sleisenger & Fordtran.
  o Diseases of the Liver - Leon Schiff and Eugene Schiff
  o Zakim and Boyer's Hepatology: A Textbook of Liver Disease
  o Major Gastroenterology/Hepatology/Transplantation journals online and in the program’s fellow
    library including Gastroenterology, American Journal of Gastroenterology, Gut, Hepatology, Liver
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  o Recommended reading and landmark articles are available on the Division of Gastroenterology,
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      ▪ Practice Guidelines from the American Association for the Study of Liver Diseases
        (AASLD) [may also be accessed via www.aasld.org].
      ▪ Transplant Hepatology CAQ
    To access the Division’s shared-access drive, go to >
      ▪ “H:” drive
      ▪ Click on “GI”
      ▪ Click on “Public”
      ▪ Click on the “Chopra” file.
• Curricular Design
  o ACGME Outcome Project documentation (from www.acgme.org).
  o Graduate Education in Internal Medicine: A Resource Guide to Curriculum Development
  o The report of the Federated Council for Internal Medicine Task Force on the Internal Medicine
• Pertinent Teaching References:
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The Inpatient Liver Consult 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.

Updated:
November 2007
August 2009
August 2015
Outpatient Transplant/General Hepatology Rotation
Curriculum for Transplant Hepatology Fellows

Educational Purpose:
The Outpatient Transplant/General Hepatology Rotation exposes the fellow to outpatient management of patients with liver diseases. During this period, the fellow will have the opportunity to assess a wide variety of acute and chronic 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:
Transplant Hepatology fellows will learn all aspects of outpatient liver disease care and will display all general competencies during this experience. 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. 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 for the Outpatient Transplant/General Hepatology Rotation:

Goal: The 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. As the year progresses the 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. With time the 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

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 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.
- Demonstrate efficient organization of the Outpatient Transplant/General Hepatology Rotation and a working knowledge of all patients.
- Demonstrate near-attending level capacity for program assessment and care planning.
- Perform with supervision the following basic procedures (see practicum):
  - 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:
  - 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)
• 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
• 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
• Participate in the primary evaluation, presentation, and discussion of potential transplant candidates
• Provide follow-up for at least 20 new liver transplant recipients for a minimum of 3 months from the time of their transplantation.
• Participate in the follow-up of 20 or more liver transplant recipients who have survived more than 1 year after liver transplantation, in order to gain familiarity and expertise with the management of common long-term problems.

- 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.
- Present cases succinctly in a direct manner.
- Know the Outpatient Transplant/General Hepatology Rotation's patients at a management level.
- Handle consult calls respectfully and appropriately.
- Teach good symptom management skills to medical students and other trainees.

Medical Knowledge Objectives:
- Attend core conferences and teaching rounds --- especially the mandatory Hepatology Conference --- to learn the pathophysiology, epidemiology, disease management and procedures and medicine management skills for common and uncommon liver diseases including:
- 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 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)
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.

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.

Participate in the primary evaluation, presentation, and discussion of potential transplant candidates.

Provide follow-up for at least 20 new liver transplant recipients for a minimum of 3 months from the time of their transplantation.

Participate in the follow-up of 20 or more liver transplant recipients who have survived more than 1 year after liver transplantation, in order to gain familiarity and expertise with the management of common long-term problems.

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.

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.

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.

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.
- 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:
- 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
- Begin to mentor medical students, other trainees and fellows in professional conduct.

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.
- Develop and become familiar with the e-portfolio system for personal documentation management, communication with mentors and other collaborators and related fellowship program documentation.
- 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., AASLD and AST conferences/courses).
- Understand and be able to work effectively related to hospital functions within UPMC and UPP.
- Understand and practice proper documentation and billing skills to practice cost-effective care.
- Use the program’s e-portfolio system for personal documentation management, communication with mentors and other collaborators and related fellowship program documentation.
- 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 conferences directed at career goals.
- Demonstrate near-attending level utilization of overall systems of care

Teaching Methods:
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 Transplant/General Hepatology Rotation 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 Starzl Transplant Institute. 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 various outpatient Hepatology Clinics (General Hepatology and Pre-and Post-Transplantation Clinics) at the Center for Liver Diseases and Thomas E. Starzl Transplantation Institute. 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:**
Transplant Hepatology fellows see a complete mix of liver diseases and conditions at the Center for Liver Diseases (CLD), which is the primary outpatient liver clinic. A diverse spectrum of internal medicine diagnoses and gastroenterology/hepatology care is provided at the CLD.

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. Due to collaborations with UPMC Presbyterian Hospital --- a tri-state and international referral center --- and the institution’s Starzl Transplantation Institute, there is outstanding diversity of unusual diagnoses in the teaching services.

**Patient Characteristics:**
The Center for Liver Diseases 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 Transplant/General Hepatology Rotation, 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 (see procedure practicum: direct observation).

**Evaluation:**
Fellows are evaluated during all Outpatient Transplant/General Hepatology 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. Quarterly evaluations include:
  - 360-degree (attending, nurse, nurse practitioner, staff/clerical, etc.);
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  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.
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- The Program Director meets with all fellows individually twice per year.

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  - Recommended reading and landmark articles are available on the Division of Gastroenterology, Hepatology and Nutrition’s shared-access drive. This information includes:
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Updated:
August 2009
August 2015
Transplant Surgery Rotation
Curriculum for Transplant Hepatology Fellows

Educational Purpose:
During the Transplant Surgery Rotation, the Transplant Hepatology fellow will be assigned to the inpatient Transplant Surgical service. A proportion of this rotation will include care for patients admitted to the Transplant ICU. The fellow will receive exposure and experience in the immediate postoperative management of the post-transplant patient; management of patients with acute liver failure; and participate in the transition of patients from the ICU to the floor units.

The fellow will also attend daily inpatient rounds with the transplant surgery fellow accompanied by the rest of the transplant surgical team which is usually a multidisciplinary team. This will offer the fellow experience in managing patients at different time points after transplantation and will enable the fellow to participate actively in the transplant recipients' medical care, including management of acute cellular rejection, recurrent disease, infectious diseases and biliary tract complications. The fellow will gain familiarity and expertise with the management of common long-term problems after liver transplantation. During this rotation the fellow will have the opportunity to participate in at least one cadaveric liver procurement and observe at least three liver transplant surgeries. Review of allograft liver biopsies and pertinent radiologic imaging studies will also be part of the Transplant Surgery Rotation.

This service provides the fellow with high-level inpatient management of liver transplant patients. During this period, the Transplant Hepatology fellow will have the opportunity to assess a wide variety of acute and chronic hepatology conditions. Fellows will partner with attendings during all aspects of liver transplantation care, including pre-transplant, decision making, during transplant and post-transplant care. 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:
Transplant Hepatology fellows will learn all aspects of liver transplant care and will display all general competencies during this experience. Minimum levels of achievement in each competency are expected during each of the twelve months 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 for the Transplant Surgery Rotation:

Goal: The Transplant Hepatology 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.

Patient Care Objectives:
- Demonstrate efficient organization of the Transplant Surgery 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 liver biopsy procedure.
- 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)
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
Participate in the primary evaluation, presentation, and discussion of potential transplant candidates
Provide follow-up for at least 20 new liver transplant recipients for a minimum of 3 months from the time of their transplantation.
Participate in the follow-up of 20 or more liver transplant recipients who have survived more than 1 year after liver transplantation, in order to gain familiarity and expertise with the management of common long-term problems.
Participate as an observer in one cadaveric liver procurement and three liver transplant surgeries

Medical Knowledge Objectives:
- Access and critique the medical literature regarding hepatology problems encountered with liver transplant.
- Assume a leadership role at core conferences and teaching rounds regarding liver transplant and the pathophysiology, epidemiology, disease management, procedures and medicine management skills for common and uncommon related diseases.
- 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)
  - 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
  - Participate in the primary evaluation, presentation, and discussion of potential transplant candidates
  - Provide follow-up for at least 20 new liver transplant recipients for a minimum of 3 months from the time of their transplantation.
  - Participate in the follow-up of 20 or more liver transplant recipients who have survived more than 1 year after liver transplantation, in order to gain familiarity and expertise with the management of common long-term problems.
  - Participate as an observer in one cadaveric liver procurement and three liver transplant surgeries
- Teach other fellows, medical students, other trainees at near-attending level.
- Organize team activities in a smooth and authoritative fashion.

**Practice-Based Learning Objectives:**
- Review, analyze and utilize scientific evidence from the hepatology literature for the management of liver transplant patients, taking a leadership role in guiding other trainees 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 liver transplant patients and family members accurately, patiently and compassionately and present information in an understandable manner. Convey bad news compassionately and honestly.
- Supervise other 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:**
- 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 UPMC/UPP healthcare resources for the best care of the Transplant Surgery Rotation's patients, including proper documentation and billing skills.
- 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:**
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 Transplant Hepatology fellows gain experience throughout their training, skills of organization and efficiency as well as team leadership become increasingly important.

The Transplant Surgery Rotation experience will prepare the Transplant Hepatology fellow to evaluate and manage acute and chronic liver transplant patients. 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 Starzl Transplantation Institute in Montefiore University Hospital. 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 new consults at UPMC Presbyterian and UPMC Montefiore 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 Transplant Surgery Rotation's teaching hospitals. UPMC Presbyterian, UPMC Montefiore and the Starzl Transplant Institute have a substantial primary care basis, which provides the entire spectrum of internal medicine diagnoses and gastroenterology/hepatology care.

Diagnoses related to liver transplantation 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. In particular, UPMC Presbyterian/UPMC Montefiore and the Starzl Transplant Institute comprise a tri-state and international referral center, and there is outstanding diversity of unusual diagnoses in the teaching services.

Patient Characteristics:
UPMC Presbyterian and UPMC Montefiore 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 (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.

Supervisory Roles and Knowledge of Service
Medical students and residents rotate on the consult services frequently. It is the fellow's responsibility to supervise the trainees' patients and to help them prepare their presentations prior to discussion with the attending. All consults seen by residents or students must be reviewed by a fellow prior to presentation to the service attending. Moreover, any patient seen by a resident or student must be followed by a fellow, and each fellow on service must know every patient.

Types of Clinical Encounters – Attending Supervision:
Encounters are inpatient in nature during the Transplant Surgery 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 both UPMC Presbyterian and UPMC Montefiore seven days per week, and in-house supervision is available all night as well. The attending has ultimate responsibility for patients.

Procedures:
During the Transplant Surgery Rotation, emergency procedures (e.g., for acute 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 during the training year by a supervising attending (see procedure practicum: direct observation).

Evaluation:
Transplant Hepatology fellows are evaluated during the Transplant Surgery Rotation. 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;
  - Peer-reviewed; and
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 Transplant Hepatology Fellowship Program annually through a confidential basis.
- Attendings evaluate the Transplant Hepatology 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 fellows’ 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.

Bibliography:

- Resource Documents
  - Up-To-Date
  - 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/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
  - To access the Division’s shared-access drive, go to >
    - “H:” drive
    - Click on “GI”
    - Click on “Public”
    - Click on the “Chopra” file.

- 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

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The Transplant Surgery Rotation 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.

Updated:
August 2009
August 2015
Research Rotation
Curriculum for Transplant Hepatology Fellows

Educational Purpose:
The Transplant Hepatology Fellow will have a four-week research block, during which there will be no inpatient responsibilities beyond maintenance of his/her outpatient clinic. This research time will be supervised under the preceptorship of a faculty member, and the fellow will be expected to meet with this mentor weekly to review data analysis. The fellow will attend research conferences which will review basic epidemiology, data interpretation and study design. The program director will also meet with the fellow on at least two occasions during this rotation to review progress and will serve as a facilitator for research issues. The fellow will be expected to present to peers and faculty at a research conference during this research block.

The Research Rotation is designed to establish the Transplant Hepatology fellow in the field of hepatology research. Fellows discuss current and future research and have time for research planning, work and post-research outcomes. The Division of Gastroenterology, Hepatology and Nutrition’s Center for Liver Diseases and the Thomas E. Starzl Transplantation Institute have a respected faculty team with diverse clinical and academic interests, ensuring that the fellow has complete opportunities to investigate personalized hepatology research projects conducted in close interaction with the 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.

Objectives:
Transplant Hepatology fellows will follow a course of research study during this rotation including 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 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 Transplant Hepatology Research Rotation:

Goal: The Transplant Hepatology 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. Fellows typically dedicate an average of four rotations to finalizing their research projects and writing about research outcomes. The development of abstract and/or publication submissions of the fellows’ research project should occur early during their twelve months of training. Fellows are required to present or publish their research before graduation.

Medical Knowledge Objectives:
- Access and critique the research literature regarding gastroenterology and hepatology problems encountered.
- Assume a 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.
- Organize team activities in a smooth and authoritative fashion.
Practice-Based Learning Objectives:

- Review, analyze and utilize scientific evidence from the gastrointestinal literature related to the critical review of research publications, translational research/clinical care management of liver patients, and taking a leadership role in guiding other 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:

- Mentor medical students, other trainees and fellows in professional research conduct.
- Make a commitment to finalize the research project early, 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.
- Assist and mentor other trainees in utilization of appropriate UPMC/UPP healthcare resources for the best research approaches and outcomes, including proper documentation.
- Use and train others on the program’s e-portfolio system for personal documentation management, communication with research 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:

Principles of hepatology research are part of the trainees’ Transplant Hepatology fellowship experience. 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 Research Rotation 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 Transplant Hepatology 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 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, UPMC Presbyterian and UPMC Montefiore 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 and fixed-wing 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 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 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 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 Transplant Hepatology Fellowship Program annually through a confidential basis.
- Attendings evaluate the Transplant Hepatology 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.

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.
- 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.
  - Fellow participation in the University of Pittsburgh's Clinical Research Training Program is also available to interested trainees. Eligibility for this course will be at the discretion of the fellowship research committee.

### Competencies-at-a-Glance

**GI Research Rotation**

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Updated:
August 2009
APPENDIX

Policies & Procedures Specific to the Transplant Hepatology Fellowship:
Division of Gastroenterology, Hepatology and Nutrition

Policies & Procedures for All Trainees:
Graduate Medical Education Office / Univ. of Pittsburgh
Please see > http://spis.upmc.com/psd/home/GME/default.aspx
Appendix:

Policies and Procedures
for the specific purpose of the
University of Pittsburgh
Transplant Hepatology Fellowship Program
APPENDIX

Policies & Procedures: Division of Gastroenterology, Hepatology and Nutrition

Policies & Procedures: Graduate Medical Education Office / Univ. of Pittsburgh
Please see > http://spis.upmc.com/psd/home/GME/default.aspx
The University of Pittsburgh Transplant Hepatology Fellowship Program complies with all ACGME resident duty hour regulations as well as the duty hours policy of the University of Pittsburgh Graduate Medical Education (GME) office. In addition to the overall duty hours policy provided through GME office policy, the Transplant Hepatology Fellowship Program requires the following from its trainees, faculty and related fellowship program personnel:

**Duty Hour Information:**
All fellows are responsible for duty hour tracking through the UPMC ROCS (Resident Online Coordination System). Appropriate duty hour compliance is mandatory for the University of Pittsburgh Gastroenterology Fellowship Program. Transplant Hepatology fellows are expected to adhere to the following duty hours and on call regulations.
- Fellow hours will not exceed 80 hours per week.
- Fellows will have a minimum of 10 hours off of clinical duties between work shifts.
- Fellows will have at least one day out of seven per week with no work-related activities.
- No fellow will work more than 30 continuous hours.

Any fellow duty hour violations will be noted on the GME ROCS system duty hour evaluation report. If a fellow has a violation, the program director will contact the fellow to inquire about the reason for the violation and will implement corrective action.

**Directions for using the UPMC GME ROCS (Resident Online Coordination System):**
- The website for viewing and approving timesheets is available through UPMC MedTrak > [http://providertrak.upmc.com](http://providertrak.upmc.com). Log in using UPMC Log In and Password. Once logged into MedTrak, click the left menu link for GME ROCS.
- The timesheets must be approved each week between 8:00 am Friday and 12:00 midnight on Saturday.
- If a fellow does not sign his/her time sheet by 12:00 midnight on Saturday, a paycheck **will not** be issued.
  - If a fellow cannot sign off, the fellow must notify the program coordinator by e-mail, and she will approve the timesheet. If the program coordinator is not e-mailed, the timesheet will not be approved, and the fellow will not receive his/her paycheck.
- The system will permit only a few changes to the schedule. For now, all other changes must be made by the program coordinator, or the fellow will need to type the changes in the comment box (i.e., and the program coordinator will then enter the new schedule information).
  - Fellows may change the start and/or end times of their shifts.
  - The program coordinator has only listed the Monday morning and Medical Grand Rounds conferences for now. If a fellow does not attend one of these conferences, the fellow must inform the program coordinator.
  - The program coordinator will enter “day off” information. Needed corrections should be reported to the program coordinator.
- Moonlighting needs to be documented through the ROCS system as well. All moonlighting work must be reported to the program director in writing via e-mail.
The University of Pittsburgh Transplant Hepatology Fellowship Program complies with all ACGME resident leave of absence regulations as well as the leave of absence policy of the University of Pittsburgh Graduate Medical Education (GME) office. In addition to the overall leave of absence policy provided through GME office policy, the Transplant Hepatology Fellowship Program requires the following from its trainees, faculty and related fellowship program personnel:

**Fellow Illness and Emergency Leave:**
Throughout training, fellows may need to call off from work/service due to illness, family emergency leave and related serious situations. The policy for calling off is as follows:

3. Contact (page if needed) the chief fellow to ensure that appropriate coverage is provided during this absence.
4. E-mail the program director, associate program director and program coordinator with the reason for this requested leave and the anticipated return date.
5. The fellow’s supervising attending must be paged/contacted as well. The attending may be contacted by the fellow calling off or the program coordinator.

Acceptable reasons to miss work include personal illness or personal/family emergencies. Fellows must find their own coverage for vacations, educational sessions and all related non-emergency time off. Fellows are encouraged to exhibit professional courtesy and good teamwork related time off policies.

**Vacation Requests:**
- A vacation request form (sample form provided in Transplant Hepatology Fellow Training Manual) is distributed at the beginning of the fellowship year. Time-off requests are considered when the fellow rotation master schedule is made. If these original time off requests change, fellows are to inform the program coordinator, in writing, at least one month before the change.
- Additional time off requests for vacation, conferences, etc. are to be made in writing no later than one month before the intended time off period. These requests are to be submitted to the program coordinator and are subject to approval by the program director.
- It is the obligation of the fellow who is calling off to arrange for appropriate and approved coverage.

**Maternity & Paternity Leave Policies:**
- Female fellows will receive six weeks off for maternity leave.
- Male fellows will receive one week off for paternity leave.
The University of Pittsburgh Transplant Hepatology Fellowship Program complies with all ACGME resident selection regulations as well as the resident selection policy of the University of Pittsburgh Graduate Medical Education (GME) office. In addition to the overall resident selection policy provided through GME office policy, the Transplant Hepatology Fellowship Program requires the following from its fellows, faculty and related fellowship program personnel:

The following criteria are used by the University of Pittsburgh Division of Gastroenterology, Hepatology and Nutrition to select fellows:
- Participation in an ACGME-accredited Internal Medicine program.
- Passing USLME Boards with excellent board scores preferred.
- Strength of recommendation letters from previous physician mentors.
- Strength of research credentials.
- Earned awards/honors.
- Dedication to an academic career.

The Program Director and Key Clinical Faculty leadership attendings meet as a group to evaluate and screen applicants. Top candidates are invited for a personal interview. During the personal interview, fellow candidates are evaluated on the following criteria by interviewing attendings:
- Educational background.
- Accolades, honors and awards.
- Letters of recommendation.
- Research experience.
- Commitment to research.
- Professionalism (maturity, poise, speech, sensitivity and mannerisms).

Fellow candidates are also asked to discuss their strengths, research interests, special training experiences and possible weaknesses during personal interviews.

After all personal interviews are completed, faculty leadership and interviewers meet as a group again to evaluate the candidates and make selections for fellowship offers.
Division of Gastroenterology, Hepatology and Nutrition
University of Pittsburgh

TRANSPLANT HEPATOLOGY FELLOWSHIP PROGRAM
MOONLIGHTING

The University of Pittsburgh Transplant Hepatology Fellowship Program complies with all ACGME resident moonlighting regulations as well as the moonlighting policy of the University of Pittsburgh Graduate Medical Education (GME) office. In addition to the overall moonlighting policy provided through GME office policy, the Transplant Hepatology Fellowship Program requires the following from its fellows, faculty and related fellowship program personnel:

Transplant Hepatology Fellow moonlighting needs to be documented through the GME ROCS system. All moonlighting work counts towards the required 80-hour work week maximum, and all duty hours regulations apply to fellows’ moonlighting assignments. All moonlighting requests must be approved by the Program Director in writing.
Division of Gastroenterology, Hepatology and Nutrition
University of Pittsburgh

TRANSPLANT HEPATOLOGY FELLOWSHIP PROGRAM
SUPERVISION

The University of Pittsburgh Transplant Hepatology Fellowship Program complies with all ACGME resident supervision regulations as well as the supervision policy of the University of Pittsburgh Graduate Medical Education (GME) office. In addition to the overall supervision policy provided through GME office policy, the Transplant Hepatology Fellowship Program requires the following from its fellows, faculty and related fellowship program personnel:

Resident Responsibilities Related to Clinical Activities:

- Patient Care: Fellows' clinical education will be emphasized over service. Rotation learning objectives describe levels of patient care for all three fellowship years, and this information may be found in the rotation curriculum sections of this manual.
- Level of Responsibility for Patient Management: Fellows will experience increasing levels of responsibility for patient management, as the progress successfully through the training program. Levels of responsibility for each rotation and each year level of training may be found in the curriculum sections of this manual.
- How Supervised and By Whom: All fellow patient care actions and responsibilities are supervised by assigned attending faculty and/or the program director through direct observation, signing off on all procedures, fellow evaluations and direct supervision for all activities. Additional information about fellow supervision may be found in the curriculum sections of this manual.
Fellows may be placed on probation for failure to meet minimum standards as defined in this manual or for critical lapses in patient care. A recommendation to place a fellow on probation will be made by the program director to the chairman of medicine. If the chairman of medicine approves the recommendation, approval of fellowship faculty will be obtained before proceeding with fellow probation.

Whether the fellow is placed on formal probation or has a minor problem with any of the core competencies, remedial instruction, counseling and mentoring will be provided by the program director and, as needed, by fellowship attendings.

Graduation in the Transplant Hepatology Fellowship Program is contingent upon satisfactory academic performance and the fellows’ suitability to assume hepatologist responsibilities. The fellows’ successful performance is based on program director reviews, attending evaluations, other medical professional evaluations, successful completion of the fellows’ research project, and other completed activities described in this manual.