

Keck Medical Center

Transplant Hepatology Orientation

2021-2022

Faculty in Charge of Rotation:

Brian Kim, MD

Cell 917-721-1249

Office 323-442-6275

brian.kim2@med.usc.edu

First Day of Rotation:

Given the current need for social distancing in the setting of COVID-19 pandemic, please report to the resident work room in the basement call room (password 54511#) of Keck Hospital in the morning. Please contact the GI or Transplant Hepatology Fellow on service at 6:30AM who will give directions regarding method of teaching rounds for the week (videoconferencing vs. in-person).

GOALS

The goal of the Keck Transplant Hepatology rotation is to provide an educational opportunity for the resident to acquire experience in the diagnosis and management of acute and chronic liver diseases as well as evaluation and management of patients pre- and post-liver transplantation. The resident will work in conjunction with a transplant hepatology attending, a gastroenterology and/or transplant hepatology fellow, two to three other second-year internal medicine residents, and a nursing coordinator. This team will take care of patients admitted to Keck Hospital under the transplant hepatology service, including the ICU. The resident will be an active part of the primary team and participate in all aspects of patient care.

As residents, you are integral members of the teaching medical team with the goals to provide excellent patient care in a collaborative and educational environment. All medical team members including medical students and attending physicians are responsible for promoting learning and teaching in an educational environment.

In addition to fostering competence in the areas of patient care and medical knowledge, the service provides critical experience in collaborating with other members of the healthcare team, including transplant surgeons, nurse practitioners, care coordinators, social workers, and pharmacists, as well as students and fellow residents, which builds skill in interpersonal communication and professionalism. Exposure to the intricacies of daily hospital care, including discharge planning and triage to higher or lower levels of care, builds competency in systems-based practice, allows opportunities to learn from mistakes, and builds pattern of practice-based learning.

ROTATION STRUCTURE

STARTING THE ROTATION

Before the first day on service, sign-out should occur from the outgoing member to the oncoming team member.

WEEKLY SCHEDULE

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Morning			7:45AM-8:30AM (weekly) Multidisciplinary Patient Care Rounds in 7E ICU or via Microsoft Teams	8:00AM-9:00AM (weekly) Multidisciplinary Pathology and Radiology Rounds in HCC4 2 nd Floor Conference Room 2404A/B or via Zoom	
Afternoon	3:30PM-5:00PM (weekly) Recipient Selection Committee Meeting in HCC3 2 nd Floor Conference Room 3265 or via Microsoft Teams	1:00PM-2:00PM (weekly) Transplant Hepatology Core Lecture in HCC3 2 nd Floor Conference Room 3265 or via Zoom			1:00PM-2:00PM (weekly, optional for residents) Living Donor Selection Committee Meeting in HCC3 2 nd Floor Conference Room 3265 or via Microsoft Teams
	4:00PM-5:00PM (every other week, optional for residents) Tumor Board in HCC3 2 nd Floor Conference Room 3265 or via Microsoft Teams	4:30PM-5:30PM (weekly, optional for residents) GI/Liver Grand Rounds in Hastings Auditorium or via Zoom			2:00PM-4:00PM (weekly, optional for residents) LAC Liver Rounds in LAC endoscopy suite conference room or via Zoom

DAILY SCHEDULE

7:00 AM – 8:00 AM	Sign-out, Fellow pre-rounds
8:00 AM – 11:00 AM	Attending Rounds
11:00 AM – 12:00 PM	Lunch
12:00 PM – 7:00 PM	Patient Care and Management
7:00 PM – 7:30 PM	Sign-out to Night Float resident

Fellow Pre-Rounds

The Fellow Work Rounds are an opportunity for the team to discuss and evaluate the admissions from the night before and the difficult management cases with the fellow prior to rounding with the attending. A preliminary plan on each patient should be made at this time.

Attending Bedside Rounds

Attending Bedside Rounds are performed from 8:00 AM – 11:00 AM everyday (unless otherwise specified). The rounds start on 7E ICU or via videoconferencing if social distancing is in effect. The attending should review all of the team's new admissions from the previous twenty-four hours and discuss all of the team's established patients with new, significant developments. Any new patient must be seen by and discussed with the attending with the team. Faculty are expected to perform bedside teaching, discussion of pathophysiology, and should use current available studies to aid in diagnostic and therapeutic decisions whenever possible.

Faculty must perform discharge planning and management rounds daily. Faculty must evaluate all of their team's patients each day and must co-sign all necessary notes. All documentation, including the initial history and physical must be signed within 24 hours. Each faculty attending is available for their team at all times when they are on service.

TEAM STRUCTURE

The Keck Liver team consists of 1 faculty attending from the Division of Gastrointestinal and Liver Disease, 1-2 GI/transplant hepatology fellow(s), 3-4 residents, nursing coordinator, and at times, 1-2 fourth-year medical students. A faculty attending will be available to the house officers at all times of the day. Each attending will perform teaching rounds seven days per week.

The housestaff are expected to use this attending as the primary resource for issues regarding patient care. The attendings rotate on a weekly basis, starting from Thursday to Wednesday. Fellows generally rotate monthly on the first weekday calendar day.

ADMISSION SCHEDULE

Keck Hepatology accepts new admissions daily. The resident must see and evaluate all admissions and staff the patient with the fellow and attending. The team's attending is always responsible for all activities no matter the time of day.

TRAINEE CAPS

Residents on this service will cover up to 6 patients per day. Caps will be maintained on the weekdays and weekends. This is to ensure that the environment on this service is optimal for your learning.

SIGN-OUT

The Keck Liver night float resident is responsible for cross-covering and admitting for the Keck Hepatology team overnight. Each medicine team signing out to the night float should provide a written handoff ("Physician Handoff") in addition to preparing for a verbal sign-out. Sign-out should take place in a protected, quiet space, and follow the I-PASS format. It is the responsibility of

the team member signing out patients to update the Physician Handoff. The Keck Liver team should arrive promptly to receive sign-out on their patients at 7:00 AM and the night float should arrive promptly to receive sign-out at 7:00 PM.

DAYS OFF

All house officers on the Keck Liver Service will get an average of one day off per week across the duration of the rotation. Days off will be designated by the Chief Residents and is available on AMION. Predetermining everyone's days off will ensure that days off are distributed fairly and that the appropriate complement of residents and interns are in the hospital at all times.

EXPECTED OR UNEXPECTED ABSENCES

Any planned absences, including for fellowship interviews, must be reported to the Medicine Chief Residents. You should also let the Liver Consult fellow and other team members know if you will be absent from service so that patient care responsibilities can be redistributed accordingly.

CURRICULUM

EDUCATIONAL PLAN

The purpose of this rotation is to train residents to competently care for patients with a broad range of acute and chronic liver diseases as well as patients peri-transplant who require hospital admission to the Transplant Hepatology service. The rotation is designed to increase diagnostic skills, reasoning ability, therapeutic acumen, objective knowledge, overall patient care skills and team management skills.

CONFERENCES

Multi-disciplinary Liver Transplant Recipient Selection Committee Meeting

The Multi-disciplinary Liver Transplant Recipient Selection Meeting occurs every Monday at 3:30PM to 5:00PM in the HCC3, 2nd Floor Conference Room 3265 or via Microsoft Teams if social distancing is in effect. Recipient Selection Committee Meeting is attended by transplant hepatology, hepatobiliary surgery, critical care team, social workers, nutritionist, financial services, and nursing coordinators. During this meeting, each candidate for liver transplantation is discussed thoroughly, and eligibility for transplantation is determined. Residents are expected to present the patients and to participate actively in the discussion.

Multi-disciplinary Tumor Board (optional for residents on Keck Liver Service)

The Multi-disciplinary Tumor Board occurs every other Monday at 4:00PM to 5:00PM in the HCC3, 2nd Floor Conference Room 3265 or via Microsoft Teams if social distancing is in effect. The meeting is attended by transplant hepatology, hepatobiliary surgery, oncology, radiology, and nursing coordinators. During the meeting, imaging studies of known and suspected hepatocellular carcinoma cases are reviewed, and treatment plans are discussed.

Transplant Hepatology Core Lecture Series (optional for residents on Keck Liver Service)

The Transplant Hepatology Core Lecture Series occurs every Tuesday at 1:00PM to 2:00PM in the HCC3, 2nd Floor Conference Room 3265 or via Zoom if social distancing is in effect. The hour is dedicated to a core topic in liver transplant, journal club, or case presentation, on a rotating basis. The lecture is given by a member of the transplant multi-disciplinary team or a transplant surgery/hepatology fellow.

GI/Liver Grand Rounds (optional for residents on Keck Liver Service)

The GI/Liver Grand Rounds occur every Tuesday at 4:30PM to 5:30PM in the Hastings Auditorium at the Hoffman Medical Research building or via Zoom if social distancing is in effect. ***The conference is optional for residents on the Keck Liver Service.*** This conference is attended by all fellows and GI/Liver attendings. The type of talks rotate weekly from Grand Rounds Speakers, Journal Club, Endoscopy Rounds, Morbidity and Mortality Conference, and Case Presentations.

Multi-disciplinary Patient Care Rounds

Multidisciplinary Patient Care Rounds occurs every Wednesday at 7:45AM to 8:30AM in 7E ICU or via Microsoft Teams if social distancing is in effect. Rounds is attended by transplant hepatology, hepatobiliary surgery, critical care team, nephrology, social workers, and nursing coordinators to discuss the care plan for peri-transplant patients currently in the hospital. Residents are expected to present the patients and to participate actively in the discussion.

Multi-disciplinary Pathology and Radiology Rounds

Multidisciplinary Pathology and Radiology Rounds occurs every Thursday at 8:00AM to 9:00AM in HCC4 2nd Floor Conference Room 2404A/B or via Zoom. Rounds is attended by transplant hepatology, hepatobiliary surgery, pathology, and radiology. Radiology and pathology of interesting inpatient and outpatient cases are reviewed in a multi-disciplinary setting. Residents are expected to present the patients and to participate actively in the discussion.

Multi-disciplinary Liver Living Donor Selection Committee Meeting (optional for residents)

Multi-disciplinary Liver Living Donor Selection Committee Meeting occurs every Friday at 1:00PM to 2:00PM in the HCC3, 2nd Floor Conference Room 3265 or via Microsoft Teams if social distancing is in effect. The Living Donor Selection Committee Meeting is attended by transplant hepatology, hepatobiliary surgery, social workers, patient advocate, nutritionist, financial services, and nursing coordinators. During this meeting, each donor candidate is discussed thoroughly, and eligibility for donation is determined.

LA County Liver Rounds (optional for residents on Keck Liver Service)

The Liver Rounds occur 2PM to 4PM in the LAC endoscopy unit conference room or via Zoom if social distancing is in effect. Liver attendings in the division attend these rounds during which the resident or the fellow will present interesting or difficult cases. This round-table discussion is meant to stimulate discussion regarding the diagnosis or care of current cases seen on LAC or Keck liver services. This is followed by liver pathology rounds in the Pathology department on the 7th floor or via Zoom.

TEACHING METHODS

Direct observation of patient care and bedside teaching (when appropriate) occur in the setting of daily inpatient rounds with the attending. Residents evaluate and treat patients both in the capacity of follow-up as well as initial evaluation. The supervising attending reviews and critiques the resident's interpretation of diagnostic studies and formulation of assessments and plans. Residents additionally attend didactic conferences as indicated above for formal teaching.

EDUCATIONAL METHODS

The main educational material during the inpatient rotation consists of individual cases which are used as template to discuss differential diagnosis, invasive and non-invasive data and therapeutic modalities for a variety of liver diseases. Patient management conferences also provide the resident with the opportunity to learn and review current literature. The resident is expected to read appropriate materials to supplement the learning experience. Formal teaching on various transplant topics will occur weekly in the Transplant Hepatology Core Lecture Series. Recommended educational resources for this rotation include the AASLD Practice Guidelines accessed via the following: <https://www.aasld.org/publications/practice-guidelines>

EVALUATION TOOLS

The attending physician is responsible for providing verbal feedback and must submit evaluations of the resident physicians in MyEvaluations. The attending must meet face-to-face to provide end-of-rotation feedback with all of the house officers they evaluate and indicate that discussion on the evaluation form. Evaluations must be completed within one week of completing a rotation. Peer evaluations for other trainees on the team should be completed in a timely manner.

PATIENT CARE

LOCATION & PATIENT CHARACTERISTICS

The Keck Transplant Hepatology Service is entirely at the Keck hospital. It comprises of both floor and ICU-level care patients.

- 6N/6S/6E/6W: Med/Surg Wards
- 5S/5N/7N/9E/9W: Med/Surg Wards
- 7E (7W for overflow): Hepatology ICU

The patient population at Keck Hospital is very diverse, with multiple ethnic and age groups represented. The spectrum of these encounters will range from primary presentation of liver disease processes to the tertiary care. Patients receiving inpatient care are generally here for complicated acute or chronic liver disease, cirrhosis, portal hypertension, and consideration for liver transplantation. We also receive transfers from outside hospitals needing acute hospitalization for higher levels of care. The care for these patients will occur on either general medicine floors or ICU.

ADMISSIONS

All potential patient admissions are determined by faculty members of the Division of Gastroenterology and Liver Diseases. Residents will be made aware of any admissions by either the GI/transplant hepatology fellow on service or the attending physician. Once the patient arrives to an inpatient bed, the resident will be notified for admission orders.

CONSULTS

Hepatology consult at Keck and Norris Hospitals are generally seen by the GI/transplant hepatology fellows. Please redirect inpatient consultation to the fellow on service.

TRANSFERS

If a patient is sick or unstable, the patient can be moved from a Med/Surg floor to the ICU. If there is a change in patient status (i.e. death, transfer to ICU, change in code status/goals of care) please inform your attending promptly.

LIVER TRANSPLANTS

Over 50% of liver transplantation at Keck occurs from our ICU. When patients have an allograft offer, the transplant surgical team will generally place pre-operative orders prior to the OR (ie NPO order). After liver transplant, the patient will transfer services to the transplant surgery team.

DISCHARGES

The decision to discharge a patient and the discharge plan must be discussed with the attending each day. This discharge plan should also be discussed with the patients. All hospital discharges require Discharge Instructions and educational material for the patient, appropriate medication reconciliation and prescriptions, appropriate follow-up referrals or appointments, an electronic discharge order, and a Discharge Summary (please see below).

RAPID RESPONSE & CODE BLUES

If a patient appears acutely unstable, do not hesitate to call the Rapid Response Team. If your patient is decompensating rapidly and requires intubation or resuscitation, call a Code Blue. If there is a change in patient status (i.e. death, transfer to ICU, change in code status/goals of care) please inform your fellow and attending promptly.

Always document goals of care discussions, even if the decision is to remain full code. Keep in mind that the code status obtained during the hospitalization is dynamic and only relevant to the current hospitalization. It does not necessarily hold true for the next hospitalization unless the patient has signed a POLST or on discussion with your patient, he/she reiterates his/her desired code status. Upon discharge, a POLST form should be completed in an effort document goals of care. The pink original goes with the patient and a copy should be placed in the chart for scanning into PowerChart.

PLACING CONSULTS

Decisions to consult a different service should always be discussed with the attending of the team. The consultant can be reached either through the operator (dial "0" from any hospital phone) or through QGenda. Remember to be courteous when calling the consult and have a well-defined question for your consultants. Please give your consultants enough time to see your patients, so try placing consults as early in the day as possible.

DEATH

If there is a change in patient status (i.e. death, transfer to ICU, change in code status/goals of care) please inform your attending promptly. Deaths must be pronounced by a licensed provider on the primary team. All in-hospital deaths require a Death Summary to be written by the primary team. If a death is pronounced by the overnight cross-covering resident, he/she may write a brief Death Note to document the circumstances and death exam; however, a Death Summary still needs to be completed by the primary team.

Deaths in the hospital are not uncommon but may be an emotionally challenging experience. Housestaff are encouraged to discuss the experience of caring for a patient who has died with the team and/or chief residents.

DOCUMENTATION

All documentation must be completed electronically in Keck PowerChart. Each note needs to end with "Discussed with Attending Dr. [Name]" and be forwarded to the attending on service for the day for review.

History & Physical

H&Ps must be written and signed by the attending within 24 hours of admission. In PowerChart, the note type, "History and Physical" should be used.

Daily Progress Note

A daily progress note must be completed for each patient unless an H&P or Discharge Summary will be written for the day of admission or day of discharge. Daily progress notes must be forwarded for

evaluation to the attending of the team. In PowerChart, the note type, "Hepatology Inpatient Progress Note" should be used.

Discharge Summary

Discharge Summaries are required for any discharge from the hospital and should be completed within 24-48 hours of discharge. This includes discharges against medical advice or elopements. In PowerChart, the note type, "Discharge summary" should be used. Discharge summaries should include the following:

- Admission date
- Discharge date
- Procedures or surgeries
- Consulting services
- Summary of hospital course
- Discharge diagnoses and medication
- Follow-up plan

Death Summary

A Death Summary is required when a patient expires in the hospital. The Death Summary should follow the format of the Discharge Summary above. In PowerChart, the note type, "Death Summary" should be used.

ACGME MILESTONES 2.0

LEARNING OBJECTIVES

	PGY 2/ PGY3
Patient Care	<ul style="list-style-type: none"> • 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. • Residents must have formal instruction and clinical experience and demonstrate competence in: <ul style="list-style-type: none"> ○ The prevention of acute and chronic endstage liver disease ○ The evaluation and management of inpatients with acute and chronic endstage liver disease ○ The management of fulminant liver failure ○ The psychosocial evaluation of all candidates, in particular those with a history of substance abuse ○ Drug hepatotoxicity and the interaction of drugs with the liver ○ Diagnosis and management of autoimmune hepatitis ○ Diagnosis and management of cholestatic liver diseases – primary biliary cirrhosis (PBC) and primary sclerosing cholangitis (PSC) Learn to provide inpatient care that is safe and compassionate and to develop the ability to thoroughly and clearly educate the inpatient in the relevant areas of disease prevention, detection, progression and therapy to promote liver health.
Medical Knowledge	<ul style="list-style-type: none"> • Resident will be able to describe, identify, and manage the following conditions: <ul style="list-style-type: none"> ○ fulminant liver failure ○ alcoholic hepatitis ○ liver transplantation ○ liver allograft rejection ○ hepatocellular carcinoma ○ portal hypertension (ascites, variceal hemorrhage, encephalopathy)
Practice Based Learning and Improvement	<ul style="list-style-type: none"> • Identify and acknowledge gaps in personal knowledge and skills in the care of ambulatory patients • Develop real-time strategies for filling knowledge gaps that will benefit patients in a busy practice setting
Interpersonal and Communication Skills	<ul style="list-style-type: none"> • Consistently establish rapport with patients and staff. • Present cases in a logical, focused manner and outline impressions that can be justified based on the clinical data. • Work as an effective team member with staff, dietitians, nurses, diabetes educators, and attending physicians. • Write or dictate an appropriately thorough clinical record entry in standard form.

Professionalism	<ul style="list-style-type: none"> • Arrive at the office or hospital promptly, well-prepared with identified learning issues. • Assume responsibility for patient welfare. • Demonstrate the effective utilization of case related clinical learning through availability and appropriate follow-up • Demonstrate independent initiative in commitment to identify and follow through with learning issues. • Seek feedback from attending physicians. • Model effective teaching skills to students and peers. • Comply with Residency dress code
Systems Based Practice	<ul style="list-style-type: none"> • Understand and utilize the multidisciplinary resources necessary to care optimally for patients • Use evidence-based, cost-conscious strategies in the care of patients • Demonstrates collaboration with other members of the health care team, including residents at all levels, fellows, attendings, medical students, nurses, pharmacists, occupational/physical therapists, nutritional specialists, patient educators, social workers, case managers, and providers of home health services • Effectively utilizes of medical consultants, including knowing when and how to request consultation, and how best to utilize the advice provided • Demonstrates willingness and ability to teach medical students and interns • Effectively leads the team, including interns, medical students, nurses, pharmacists, case managers, and social workers • Resident will establish competency navigating a different healthcare system.