

UCLA-OLIVE VIEW INTERNAL MEDICINE RESIDENCY
HEPATOLOGY CLINIC CURRICULUM

Target: PGY 1-3
Updated September 2018

A. EDUCATIONAL OVERVIEW

The purpose of this rotation is to train residents to competently evaluate and treat patients with acute and chronic liver conditions common to outpatient general medicine practice.

B. ROTATION DESCRIPTION AND STRUCTURE

The training site for this clinic assignment is the Olive View-UCLA Medical Center. Hepatology clinic occurs on Tuesday mornings in the GI Lab, 2C-175. Residents (PGY-2 or -3) and interns (PGY-1) will be assigned to the clinic as part of an Ambulatory Medicine rotation. Additional rotators may include UCLA Hepatology and Internal Medicine residents, and they will be assigned separate patients. All rotators will be supervised by an attending physician, with specialization in Hepatology.

C. GOALS & OBJECTIVES

Residents will be expected to acquire the knowledge and skills necessary to care for patients with common hepatic conditions over the three-year training program. The resident is expected to achieve the common goals and objectives (see separate document) in addition to the following objectives.

In addition to knowledge of the common hepatic conditions, residents will be expected to provide appropriate evaluation and treatment for these conditions as well as competently perform basic in-clinic hepatic procedures.

1. Goal: Provide new evaluation and management of liver conditions.

The resident should be able to:

- Perform a focused history of the liver condition, including time course, evolution of the symptoms and extrahepatic manifestations, medical history, and drug / supplement exposures. (PC1)
- Perform a focused examination and detailed description of the liver and abdomen using appropriate terminology. (PC1)
- Differentiate between benign and malignant liver lesions. (MK1, PC1)
- Synthesize the patient's findings into a top diagnosis and if needed at least two other differential diagnoses. (PC1)
- Recommend additional laboratory testing, imaging, and liver biopsy only when appropriate. (PC2)
- Explain the risks, benefits, and steps of getting a percutaneous or transjugular liver biopsy and describe the indications for the transjugular route. (PC4)
- Provide appropriate follow-up when indicated for clinical re-assessment or follow-up of test results. (PC2-3, SBP1)
- Know when and how to screen for hepatic porphyrias. (PC1/2, MK1)

2. Goal: Recommend appropriate treatment for liver conditions.

The resident should be able to:

- Identify correct antiviral therapies for treating hepatitis B (HBV) and hepatitis C (HCV) viruses and explain the indications for starting and stopping treatment. (PC2, MK1)
- Describe the array of possible medical treatments for fatty liver disease (NAFLD/NASH) but also their limitations. (PC2, MK1)
- Explain the role of bariatric surgery in the management of metabolic syndrome. (PC2/5, MK1)
- Explain the use of prednisolone in acute alcoholic hepatitis. Furthermore, manage acute alcoholic hepatitis and effectively counsel patients and families about the systemic, genetic, and social issues around alcohol use/abuse. (PC2/3, PROF3)
- Describe the use of immunosuppressants (glucocorticoids, 6-MP/azathioprine, mycophenolate) in the treatment of autoimmune hepatitis (AIH). (MK1)
- Describe the use of ursodiol and obeticholic acid in the management of primary biliary cholangitis (PBC). (MK1)
- Describe the role of phlebotomy in hereditary hemochromatosis and chelation therapy in Wilson disease. (MK1)
- Identify patients who need surgical intervention for benign liver lesions (adenoma, focal nodular hyperplasia, hemangioma). (PC2/5)
- Risk stratify patients with cirrhosis (MELD and CPT score) and refer them for formal evaluation for liver transplant when appropriate. (PC1-3/5)
- Describe the role of chemotherapy, interventional radiology techniques (TACE, RFA), and liver transplantation in the management of hepatocellular carcinoma (HCC). (PC2/5)

D. CORE TOPICS IN HEPATOLOGY

1. Common Diseases and Conditions (MK1)

- Abnormal Liver Function Tests
- Chronic Liver Injury
 - Cirrhosis and preceding levels of liver fibrosis
 - Non-alcoholic Fatty Liver Disease (NAFLD) and Steatohepatitis (NASH)
 - Alcoholic Liver Disease
 - Viral hepatitis B & C
 - Autoimmune Hepatitis
 - Primary Biliary Cholangitis (PBC)
 - Primary Sclerosing Cholangitis (PSC)
 - Hemochromatosis and secondary causes of iron overload
 - Wilson Disease
 - Alpha-1 anti-trypsin deficiency
 - Glycogen storage diseases and Lysosomal disorders
 - Porphyrias
- Acute Liver Injury
 - Drug-Induced Liver Injury including acetaminophen toxicity

- Acute alcoholic hepatitis
- Acute viral hepatitis
- Ischemic liver injury / Shock liver
- Autoimmune liver disease
- Wilson Disease
- Budd-Chiari

2. Diagnostic Studies (MK2)

- Paracentesis (when to, how to, percutaneous vs. transjugular)
- Liver biopsy (indications and limitations)
- Explain the use of arterial blood gas, bubble study (ECHO), macroaggregated albumin (MAA) studies, and right heart catheterization for differentiating hepatopulmonary syndrome (HPS) from portopulmonary hypertension (POPH).
- Serologies for viral hepatitis (both acute and chronic, screening and monitoring)

E. TEACHING METHODS

Clinical education is provided through direct patient care and discussion of each case with the supervising attending physician.

Housestaff are also expected to supplement learning through self-directed reading from available resources.

F. SUPERVISION AND EVALUATION

All housestaff and patient care will be supervised by the attending physician.

Residents will be evaluated by the supervising attending. Direct feedback will be provided at the point-of-care and additional feedback may be provided in writing through MedHub. These can be reviewed by the resident at any time and will be reviewed with the housestaff during the Clinical Competency Committee meeting.

Direct observation and feedback of interviewing, examination, and/or counseling skills may be documented with the Mini-CEX.

G. EDUCATIONAL RESOURCES

Electronic resources are also available through the internet at Olive View-UCLA Medical Center and through UCLA.

- UpToDate
- Dynamed (coming)
- PubMed
- American Association for the Study of Liver Diseases (AASLD) Clinical Guidelines