

Liver Transplant Service

Patient Care

Goals and Objectives

- 1) Interpret the results of focused clinical evaluations (history, physical examination, laboratory data) performed on patients undergoing assessment for liver transplantation to
 - a) Identify patients who are candidates for liver transplantation
 - b) Identify the findings that constitute contraindications to proceeding with liver transplantation
 - i) Cardiac risk factors
 - ii) Infectious risk factors
 - iii) Risk of rejection
 - iv) Risk of recurrence of disease, hepatocellular carcinoma, hepatitis B and C
 - c) Perform evaluations on patients with end-stage liver disease being assessed for liver transplantation, and identify those findings consistent with liver disease.
- 2) Interpret the results of focused clinical evaluations (history, physical examination, laboratory data) in postoperative liver transplant patients to identify and develop treatment plans for the following postoperative changes and complications:
 - a) Decreased urine output
 - b) Decreased blood pressure
 - c) Fever
 - d) Hemorrhagic shock
 - e) Respiratory failure
 - f) Renal failure
 - g) Hemorrhage
 - h) Rejection
 - i) Anastomotic complication
 - i) Biliary
 - (1) Biliary stricture
 - (2) Leak
 - ii) Hepatic artery
 - (1) Stenosis
 - (2) Thrombosis

Responsibilities & Expectations

- 1) Write admission and inpatient orders under the supervision of the NP/fellow/attendings
- 2) Attend rounds, and be prepared to present patients in an organized and succinct manner
- 3) Update sign out

- 4) Implement the clinical decisions made by the team (on rounds, during the day) in a timely manner
 - a) Arrange consultations
 - b) Check orders
 - c) Schedule diagnostic tests
 - d) Schedule therapeutic procedures
- 5) Notify the fellow/NP if unable to implement the clinical decisions
- 6) Communicate the results of consultations, diagnostic tests, and therapeutic procedures to the fellow in a timely manner
- 7) Present patients in selection
- 8) Write discharge summaries and discharge orders

Medical Knowledge

Goals and Objectives

- 1) Describe the evaluation process, including medical and psychosocial components, for the
 - a) Live liver transplant donor
 - b) Liver transplant recipient
- 2) Justify the indications for and contraindications for liver transplantation
- 3) Describe the significance of and clinical application of:
 - a) The Child-Pugh score
 - b) The MELD system
- 4) Identify immunosuppressive medication
 - a) Classes
 - b) Mechanisms of action
 - c) Toxicities
- 5) Describe the anatomy of
 - a) The liver
 - i) Segmental
 - ii) Blood supply (normal and aberrant)
 - b) Inferior vena cava and hepatic veins
- 6) Describe the major steps involved in performing a liver transplant
- 7) Describe the anatomic definition of
 - a) Right hepatectomy
 - b) Left hepatectomy
 - c) Left lateral segmentectomy
- 8) Describe and compare the treatment options for hepatocellular carcinoma, as well as the criteria for transplant
- 9) Analyze common opportunistic infections in transplant recipients in terms of:
 - a) Presenting signs and symptoms
 - b) Treatment
 - c) Prevention
- 10) Define the course of fulminant hepatic failure and the management of the following complications
 - a) Renal failure

- b) Cerebral edema
 - c) Hypoglycemia
 - d) Coagulopathy
- 11) Identify the optimal management for patients with the following
- a) complications of end-stage liver disease
 - b) Gastrointestinal hemorrhage
 - c) Spontaneous bacterial peritonitis
 - d) Encephalopathy
 - e) Intractable ascites
 - f) Hepatocellular carcinoma

Practice-Based Learning And Improvement

Goals and Objectives

- 1) Analyze the common complications of ESLD and liver transplantation

Responsibilities & Expectations

- a) Participate in the weekly Transplant M&M conference to review and analyze treatment outcomes
- b) Meet with the education representative at least one time during the rotation to review goals & objectives

Interpersonal And Communication Skills

Goals and Objectives

- 1) Communicate effectively as a member of the multidisciplinary team which rounds together
- 2) Communicate effectively with patients and families

Responsibilities & Expectations

- 1) Counsel and educate patients and their families regarding pathology of illness
- 2) Communicate daily plan of care with RN, PT, OT and nutrition.
- 3) Communicate plan of care to transplant coordinator and outpatient providers as needed.

Professionalism

Goals and Objectives

- 1) Describe the ethics of organ donation, brain death, withdrawal of support, and the separation of the transplant team from the team caring for the patient who is a potential donor
- 2) Describe the ethics of living donation, considering donor health and well-being.
- 3) Discuss the ethics of compensation of donor families or living donors.

- 4) Discuss the ethics of various organ allocation schemes, emphasizing utility, efficiency, justice.
- 5) Discuss the conflicting interests of individual transplant patients vs. the waiting list as a whole

Responsibilities & Expectations

- 1) Attend at least two liver transplant selection conferences

Systems-Based Practice

Goals and Objectives

- 1) Describe the US system for allocation of livers from deceased donors
- 2) Compare the costs of
 - a) A liver transplantation
 - b) Immunosuppressive medications with the costs of long-term management of end-stage liver disease
- 3) Analyze the impact of recurrent disease
- 4) Discuss the ethics of patient selection for liver transplantation, including issues surrounding denial of transplantation
 - a) Allocation of a scarce resource (200% mortality, society vs. individual)
 - b) Lack of other options
- 5) Describe the ethics of living donation, considering donor health and well-being
- 6) Discuss the ethics of various organ allocation schemes, emphasizing utility, efficiency, justice

Responsibilities & Expectations

- 1) Attend at least two liver transplant selection conferences