

Barriers to Referral for Liver Transplantation.

These are your survey instructions that you would enter for your survey participants. You may put whatever text you like here, which may include information about the purpose of the survey, who is taking the survey, or how to take the survey.

Surveys can use a single survey link for all respondents, which can be posted on a webpage or emailed out from your email application of choice. By default, all survey responses are collected anonymously (that is, unless your survey asks for name, email, or other identifying information). If you wish to track individuals who have taken your survey, you may upload a list of email addresses into a Participant List within REDCap, in which you can have REDCap send them an email invitation, which will track if they have taken the survey and when it was taken. This method still collects responses anonymously, but if you wish to identify an individual respondent's answers, you may do so by also providing an Identifier in your Participant List. Of course, in that case you may want to inform your respondents in your survey's instructions that their responses are not being collected anonymously and can thus be traced back to them.

This is a quality improvement project. The purpose of this survey is to better understand barriers to referral for liver transplantation. This survey should take less than 10 minutes. Your answers are completely anonymous.

Please answer the following demographic questions:

What is your current age?

- 20-40 years
- 41-50 years
- 51-60 years
- 61-80 years
- 81 and over

What is your gender?

- Male
- Female
- Transgender
- Prefer not to answer
- Other

Please specify "Other"

What is your ethnicity?

- Hispanic
- Non-Hispanic
- Prefer not to answer

What is your race?

- White
- Black or African American
- Hispanic or Latino
- Asian or Pacific Islander
- Native American
- Prefer not to answer
- Other

Please specify "Other"

What type of clinician are you?

- Advanced practice provider (i.e. nurse practitioner, physician assistant)
- Gastroenterology/Hepatology Fellow
- Physician

How many years has it been since you completed your medical training? (i.e. fellowship or PA/NP school)?

- 1-4 years
 5-10 years
 11-20 years
 Greater than 20 years

Please answer the following questions regarding your practice setting and scope:

Do you treat patients with cirrhosis in your outpatient or inpatient practice?

- Weekly
 Several times per month
 Several times per year
 Rarely
 Never

Where is your primary practice setting?

- University Hospital Liver Transplant Center
 University Hospital Non-liver Transplant Center
 Community Hospital affiliated with a medical school
 Community Hospital not affiliated with a medical school
 Veterans Administration
 Private practice
 Internal Medicine
 Family Medicine

What is your primary specialty within gastroenterology? If you start transplant evaluations for patients please choose Transplant hepatology.

- Transplant hepatology
 General hepatology
 General gastroenterology
 Advanced Endoscopy
 Motility
 Inflammatory Bowel Disease
 Esophageal Disease

Please rate the largest system barriers to referring patients for liver transplantation in your practice.

	Not a Barrier= 1	2	3	4	Significant Barrier= 5
Time to discuss transplant process with patient in addition to other medical issues	<input type="checkbox"/>				
Unclear about indications for liver transplant	<input type="checkbox"/>				
Unclear about medical contraindications for liver transplant	<input type="checkbox"/>				
Cumbersome referral process	<input type="checkbox"/>				
Concerns that patient will be lost to your practice	<input type="checkbox"/>				
Unclear about alcohol use policies	<input type="checkbox"/>				
Time to complete referral process (i.e. fax documentation)	<input type="checkbox"/>				

Lack of clear process for
transplant referral

Please read the following short vignettes. The question stems are intentionally short and may not contain all the information that you may normally incorporate into your decision-making process. The answer choices intentionally do not reflect the complexities of these decisions. Please choose the best answer given the information provided.

Mrs. Ross is a 62-year-old woman with a history of non-alcoholic steatohepatitis associated cirrhosis, complicated by ascites, requiring paracentesis every week. She has hepatic encephalopathy treated with lactulose and rifaximin and has been hospitalized twice in the past six months for treatment. She has a history of diabetes and hypertension that are well controlled. She is independent with his activities of daily living, but her daughter notes she is weaker than she was a year ago. Her model for end-stage liver disease sodium (MELD-Na) score is 14.

- Referral if MELD-Na is 15 on follow up labs in three months
 - Refer for liver transplant evaluation
 - Do not refer for liver transplant evaluation
-

Mr. Smith is a 59-year-old male with alcohol associated cirrhosis. He has history of recurrent gastric variceal bleeding and underwent transjugular intrahepatic portosystemic shunt (TIPS) placement one year ago. He has been hospitalized three times for acute kidney injury and hyponatremia since that time. He completed an alcohol treatment program 1 year ago, but relapsed. He has been sober again for 4 months with negative alcohol biomarkers. His MELD-Na score is now 25.

- Do not refer for liver transplant evaluation
 - Refer after he has been sober for six months
 - Refer for liver transplant evaluation
-

Mr. Sanchez is a 45-year-old male with a history of autoimmune hepatitis and cirrhosis diagnosed by liver biopsy when he presented to the hospital with jaundice. He has been on azathioprine and steroids for a year without complete normalization of his liver test. He has trace ascites on ultrasound. His MELD-Na score is now 10.

- Refer for liver transplant evaluation if increasing steroids does not normalize liver test
 - Refer for general hepatology evaluation
 - Refer for liver transplant evaluation
-

Mrs. Blake is a 55-year-old woman with cirrhosis secondary to hepatitis-c virus (untreated), who has just been diagnosed with hepatocellular carcinoma on a triple phase CT. She has a single 4.2 cm lesion. She has a history of large non-bleeding esophageal varices managed with carvedilol. She has no history of ascites or hepatic encephalopathy. Her model for end-stage liver disease sodium score is 8.

- Refer for liver transplant evaluation
 - Do not refer for liver transplant evaluation
 - Refer for surgical evaluation
-

Mrs. Taylor is 73-year-old woman with cirrhosis secondary to non-alcoholic steatohepatitis. She has ascites that is managed with diuretics. She has been admitted twice in past 18 months for hepatic encephalopathy. Her medical history is notable for coronary artery disease and myocardial infarction. She has heart failure with ejection fraction of 40% evaluated 3 months ago and is ASA class II. She has COPD and uses oxygen with exertion. She has poor appetite and has been losing weight in the setting of nausea and abdominal pain. She is independent with her activities of daily living. Her MELD sodium score has increased in the past three months since her last visit from 13 to 22.

- Refer for liver transplant evaluation
- Refer for palliative care evaluation
- If MELD-Na does not improve with holding diuretics, refer for liver transplant evaluation

Mr. Johnson is a 45-year-old male with alcohol associated cirrhosis complicated by ascites requiring paracentesis weekly for the past six months. He has been admitted twice in the past 3 months for complications of acute alcohol associated hepatitis. He continues to drinks daily, but comments to team that he is now committed to cutting back given his recent frequent hospital admissions. He has no other comorbidities. His MELD-Na score is 28.

- Refer for liver transplant evaluation
- Do not refer for liver transplant evaluation
- Refer for consideration acute alcohol associated hepatitis protocol

Thank you for taking the time to complete our survey to help improve patient care.