

Dear Doctor,

Whilst this proforma cannot replace the detailed knowledge you have of your patients, our aim is to standardise the minimum data set we receive with referrals in order to improve the patient pathway and experience. This will facilitate efficient and timely triage and assessment of patients. It may also allow you to delegate more easily, completion of referrals to ourselves. We are happy to continue to receive referral letters.

MANY THANKS.

Name of Referrer:	
Named Consultant:	
Referring Hospital:	
Contact Phone number:	
Contact email:	
Date of Referral:	

LEEDS REFERRAL FOR LIVER TRANSPLANT ASSESSMENT

Name	Date of Birth	NHS number
Address		Postcode
Synthetic dysfunction Ascites SBP	Variceal haemorrhage Hepatic Encephalopathy Nutritional Decline/Sarcopenia Other (Please specify)	
Additional information		
Diabetes <ul style="list-style-type: none">• Diet controlled• Type 2 requiring oral hypoglycaemics only• Type 2 diabetes requiring Insulin• Type 2 Diabetes	Cardiovascular disease <ul style="list-style-type: none">• Atrial fibrillation• Ischaemic heart disease• Other (Please specify)	
Additional information		
Alcohol history		
Information regarding abstinence:		
Smoking history:		
Substance use history:		

Section 6: INVESTIGATIONS BEFORE REFERRAL <i>(Please ensure these investigations are completed/have been requested locally prior to referral)</i>				
Sodium:	Creatinine:	Bilirubin:	INR:	Albumin:
MELD	UKELD	Child-Pugh Score	BMI	
Abdo USS & Doppler OGD DEXA scan Pulmonary Function Tests Echocardiogram Please assess LV & RV function (including diastolic function), valve assessment, PA pressures, Ejection fraction and EA ratio/TMD				
Section 7: ADDITIONAL INVESTIGATIONS				
MRI CT		ECG CXR	(We would image link for recent investigation if it reduces radiation exposure)	
PLEASE NOTE: If referral is for HCC patient must have had a triple phase CT or MRI abdomen and staging CT including Chest, Abdomen and Pelvis				
<i>It is expected that the aetiology panel below has been done at the patient's initial presentation. Please attach details of results</i>				
U&Es LFTs FBC Clotting TFTs Calcium	Glucose HbA1c AFP Serum Copper Ceruloplasmin (<45yrs) Ethanol	HCV HbsAg HbCab HIV	Liver autoantibodies anti-tTG antibody Immunoglobulins Alpha-1 antitrypsin	
Urine Protein/Creatinine ratio CPO swabs MRSA swabs		These results are not expected but are very useful if known.		

Please attach reports of any recent CTs and previous liver biopsies and arrange for any recent cross-sectional imaging to be image linked to the St James's Radiology Department.

If you intend to perform an MRI on your patient please find attached the protocol used at LTHT to help facilitate reproducible quality.

Many thanks for your referral and assistance. We will notify you on receipt of this referral and aim to see patients within 6 weeks. During this time we appreciate your continued management of the patient and clinical updates when appropriate.

Yours Sincerely,

**The Liver Transplant Team,
Leeds Teaching Hospital NHS Trust.**

Please fax to: 0113 2066462

or send to: Hepatology Department, Merville Building, Beckett Street, St James's Hospital Leeds, LS9

7LS.

Appendices

- **MRI Protocol**
- **UKELD calculator link**

Appendix 1 - MRI Protocol

PRE GAD

Routine pre gad sequences.

Axial Tru Fisp
Coronal Tru Fisp
Axial T2 Haste
Axial IP/OOP or Dixon
Axial VIBE.
Cor/Oblique RAO VIBE

If liver lesion noted or nodular liver, use 10ml Primovist , otherwise Gadovist

Test Bolus 1ml gad @4mls/sec or 1ml Primovist @1.5ml/sec

POSTGAD

Contrast Injection 10mls gadovist or 20mls other agents @ 4mls/sec, followed by 20mls saline. Or 10ml Primovist @1.5 mls/sec

Axial VIBE Calculate arterial phase time to peak (test bolus) + injection time -time to center of K space .

Cor/Oblique RAO VIBE Porto-venous phase 15 seconds after the arterial phase

Axial VIBE Equilibrium phase 90-120 seconds from the start of injection.

Cor/Oblique LAO through splenic hilum if sinistral varices present

Axial Diffusion (in gap waiting for delayed scans)

10mins (Gadovist patients)

Axial Vibe

Cor/oblique RAO Vibe

20mins (Primovist patients) Hepatocyte phase

Axial Vibe

Cor/oblique RAO Vibe

If contrast is not demonstrated in the bile ducts consider a further delayed vibe.

NB.
If Gadovist demonstrates lesion hypervascularity administer *10ml Primovist and perform delayed Primovist VIBE scans at 20mins.*

Patients with a history of PSC -Gadovist only.

Appendix 2 UKELD calculator

https://nhsbtmediaservices.blob.core.windows.net/organ-donation-assets/downloads/UKELD_calculator.xls

There is also an app for smartphones created by one of our Doctors that calculates MELD, UKELD and Child's Pugh Score

- **OLTcalc**