# **Hepatology referral pathways for GPs**

# 1 Scope

For use within hepatology

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# 2 Liver blood tests and what they mean

Test	Normal range	What does it mean?	Actions if abnormal
ALT	7-40	Hepatocellular injury	Raised ALT
Bilirubin isolated raised	<21	Gilberts Haemolysis	Isolated asymptomatic raised bilirubin
Bilirubin with abnormal LFT		Liver or biliary pathology	Refer (routine vs urgent acc to values)
Alkaline Phosphatase (ALP)	30-130	Biliary disease (if raised GGT) Bone disease Pregnancy (placenta) Acute phase response	Raised ALP and normal ALT
Gamma glutamyl transferase (GGT)	Male 0-73 Female 0-38	Non-specific – can reflect alcohol intake, non-alcoholic fatty liver or biliary disease if associated with raised ALP	Follow relevant pathway
Prothrombin time (PT)		Elevated with impaired synthetic function or biliary obstruction	Refer if could be liver related
Albumin	35-50	Non-specific, but may represent impaired synthetic function if low	Refer if could be liver related
Ferritin		Not necessarily iron overload	Raised ferritin
Reduced platelets		Can be a feature of cirrhosis with portal hypertension	Refer if could be liver related

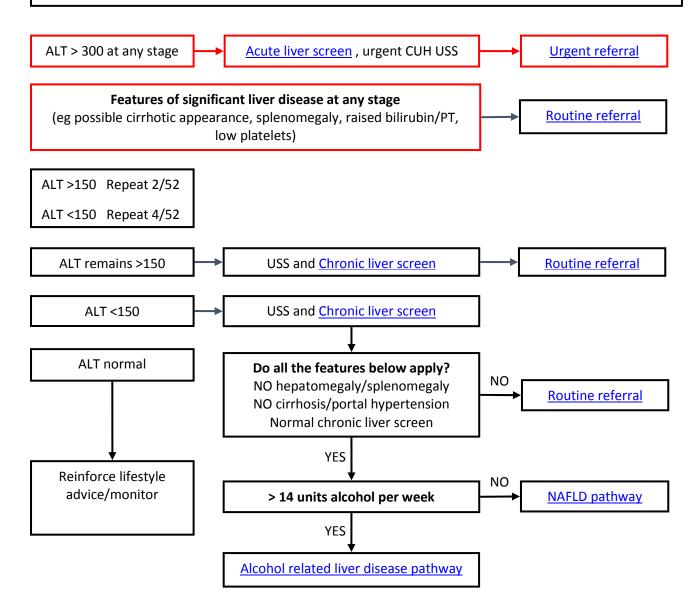
Chronic liver screen	Acute liver screen
U/E, LFT, FBC, PT, FIB-4 if suspected NAFLD	LFT, FBC, PT
Hepatitis B & C serology	Hepatitis A, hepatitis B and hepatitis E serology
Liver autoantibodies	(IgM & IgG), EBV and CMV
Serum immunoglobulins	Liver autoantibodies
Iron studies	Serum immunoglobulins
Alpha-1 antitrypsin level	If under 50 caeruloplasmin
Random glucose, HBA1c, lipids if ?NAFLD	
If under 50 caeruloplasmin	

Hepatitis B screen	Hepatitis C screen
Chronic liver screen plus:	Chronic liver screen plus:
HBV DNA	HCV RNA and genotype
Hepatitis A IgG	Hepatitis A IgG
HIV screen	HIV screen

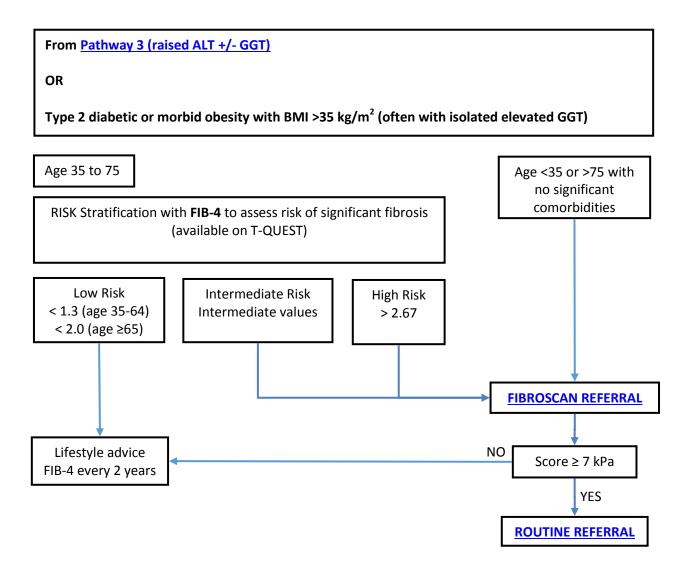
### 3 Isolated raised ALT (+/- GGT)

THINK about and address Risk Factors

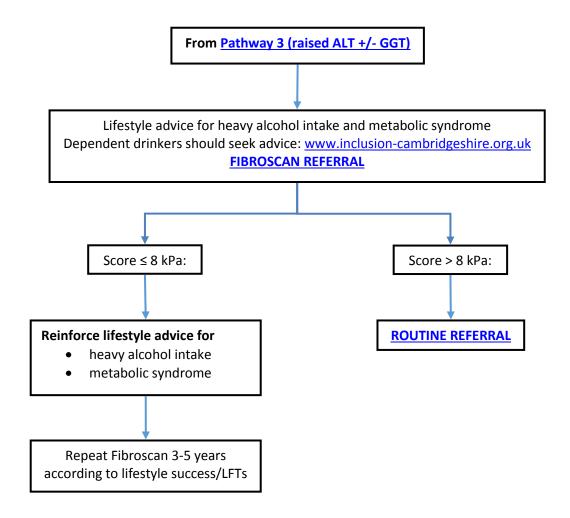
- Metabolic syndrome
- Diabetes
- Alcohol
- Risks for viral hepatitis (ethnicity, IV drug use)
- Medication
- Vigorous exercise (check CK)



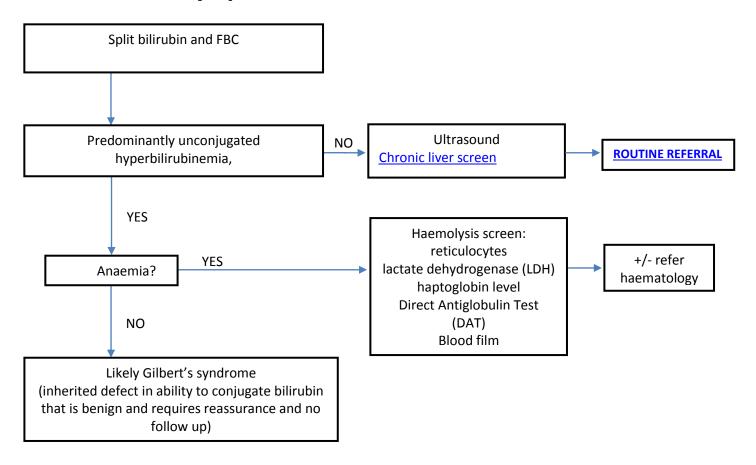
### 4 Non Alcoholic Fatty liver Disease (NAFLD) pathway



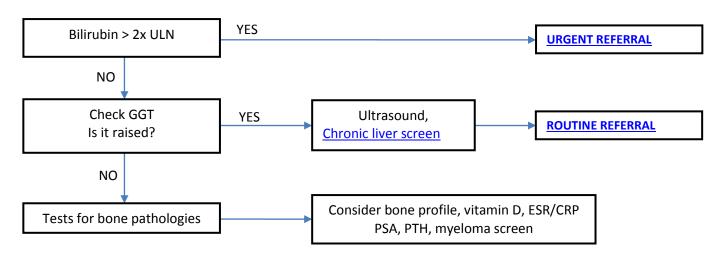
# 5 Alcohol-related Liver Disease (ArLD) pathway



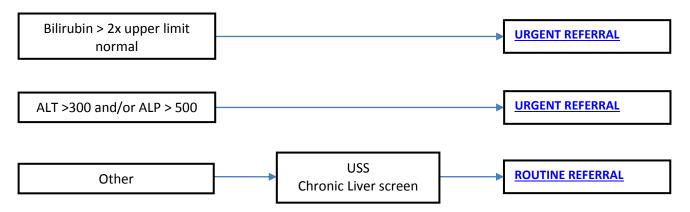
### 6 Isolated asymptomatic raised bilirubin



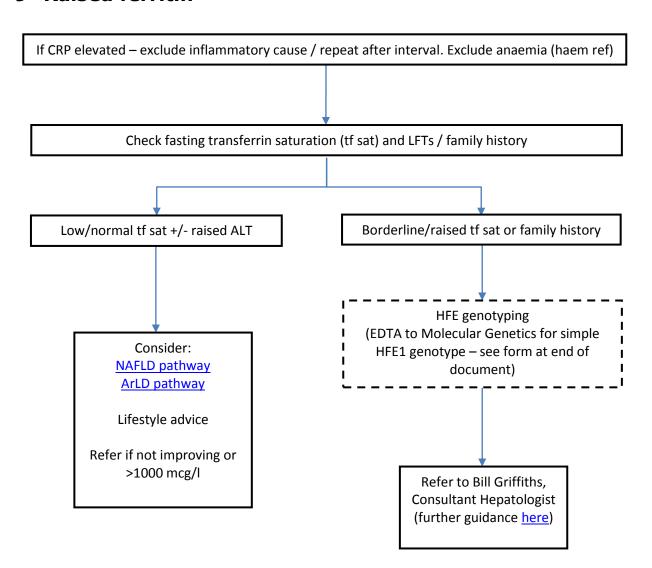
#### 7 Raised ALP and normal ALT



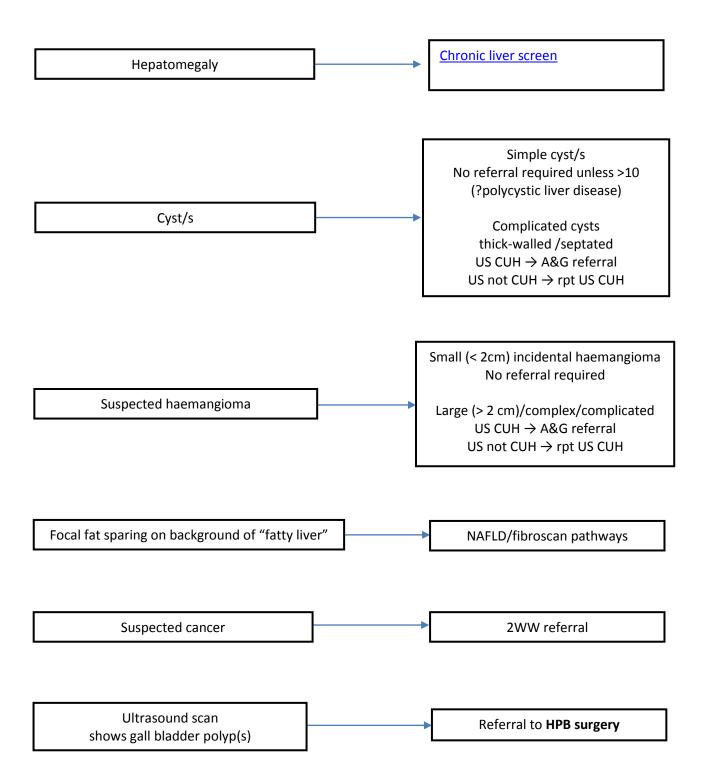
#### 8 Combination of LFT abnormalities



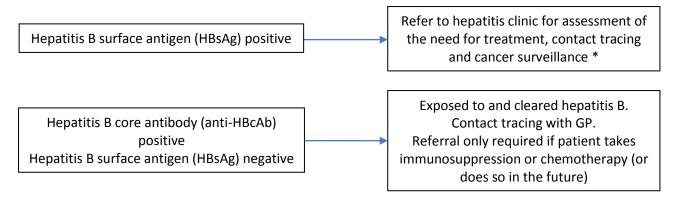
#### 9 Raised ferritin



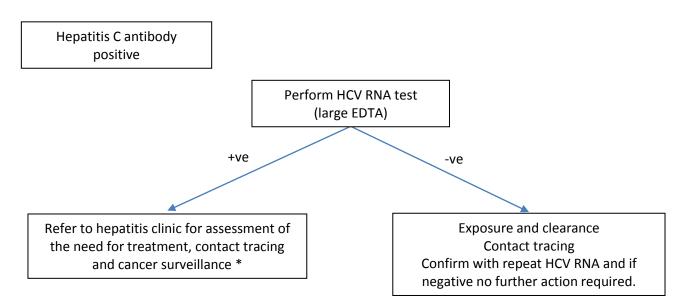
# 10 Abnormal liver imaging



## 11 Hepatitis B



### 12 Hepatitis C



\* Pre-clinic workup: (see T-Quest Groups)

For HBV and HCV: Chronic liver screen plus HIV and hepatitis A immunity serology

For HCV: HCV RNA and genotype (large EDTA tube)

For HBV: HBV DNA (large EDTA tube)

# 13 Referral pathways

URGENT REFERRAL	
Jaundice <40 yrs, tense ascites, ALT > 300 and/or ALP > 500, Suspected cirrhotic decompensation Jaundice >40 yrs, suspected liver cancer	E-referral to general hepatology clinic (non-viral) and mark URGENT  2WW pathway

ROUTINE REFERRAL – please review guidance		
Abnormal LFTs Suspected chronic liver disease Raised ferritin	E-referral to general hepatology clinic (non-viral)	
Hep B or C new diagnosis	E-referral to <i>viral hepatitis</i> clinic	
Benign abnormal liver imaging	Referral according to guidance	
Fibroscan	E-referral via specific proforma	

- Addenbrookes Hepatology Webpage
- Further information: <a href="https://easternliver.net">https://easternliver.net</a>

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**Document management** 

Approval:	Dr Bill Griffiths, Clinical Lead		
Owning department: Hepatology			
Author(s):	Dr Will Gelson, Dr Bill Griffiths, Dr Mike Allison		
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