Adult Liver Pathway

Key
Green text – test type
Blue box - test results
Orange box - referrals

Routes into Pathway

Patient presents with symptoms

Patient presents with deranged LFTs

Clinical Assessment - History

Symptoms – *present for how long?*

Jaundice
- *Pale Stool/Dark Urine*
- *Vomiting*
- *Weight Loss*
- *Abdominal Swelling*
- *Pruritis*

Fever
Pain – including back pain
Symptoms found on systemic review

Risk Factors

Lifestyle
Sexual History
Prison
Travel
Tattoos
Occupation

Medical
Transfusion
Surgery
New medications
Autoimmune disorders
Pregnant

Metabolic Disorders
Weight
Diabetes
Dyslipidaemias

Drugs and Alcohol
Drug and alcohol usage (inc. legal, illicit, herbal)
IV drug use

Clinical Assessment - Examination

General
Pale
Jaundiced
Paul/ BP/ Temperature

Specific
Flap
Tremor
Foetor
Confusion
Spider Naevi
Clubbing

Abdomen
Peritoneal Signes
Organomegaly
Swelling/ Ascites
Caput Medusa

Urgent Referral and Admission Guidance

Additional Info Pop Up

Isolated raised GGT – poor specificity and does not need referral or further investigation
Isolated raised ALP with normal GGT

Likely Bone Origin – investigate as appropriate – pop up

Urgent Imaging Referral

For new onset jaundice (USS/ CT)

Urgent Referral Pop Up
Over 40s with jaundice – 2WW
Associated systemic features suggestive of malignancy
Features of Chronic Liver disease without need for admission (need define urgent)

Admission Pop Up
Very unwell with high fever/ low BP/ high pulse

Medical
Renal Failure
Hepatic decompensaton (altered mental state, ataxia, liver flap, easy bruising, tense ascites)
Malaena or Haematemesis

Surgical
Jaundice with Pale Stools/Dark urine with fever and rigors, pain +/- vomiting
Peritoneal

Obstetrics
Pregnancy (gestation?)

Investigations – *select all appropriate based on clinical assessment*

NOTE
If clear recent insult (eg new drugs) stop and reassess at 4/6 weeks

All patients that are symptomatic or no obvious insult (if not already done)

FBC CRP UE LFT INR

DO NOT DO GGT

Isolated Raised **ALP** → **GGT**
- Raised → **USS** → Normal → **Antibodies Immunoglobulins AMA ANCA ASM Ferritin TSAT**
- Normal → Bone origin

TSAT ≥ 45% → Repeat as fasting → If still abnormal → Genetic testing for haemochromatosis / **Refer** Haem/ Liver

Additional Info Pop Up

See separate pathway

Additional Info Pop Up

To include Hep B/C Risks and Hep A/ EBV Clinical Features

Investigations – *select all appropriate based on clinical assessment*

Raised **ALT**

- Acute Illness **Hep A EBV** *(if required)* → Reassess 4/6 weeks → Persistently raised LFTs
- Excess Alcohol **AST** → AST: ALT ≤ 0.8 / AST: ALT ≥ 0.8
- Obesity **FIB4 HbA1c TSH**
- Risks for BBV **Hep B Hep C HIV** → Negative / Positive

Positive **Autoantibodies Alpha 1 antitrypsin ceruloplasmin**

USS
Liver Screen
No obvious cause | cause eliminated and symptoms/ deranged LFTs persist | potential cause not eliminated

AST Fib4 Hba1c
Hep B C HIV
Autoantibodies (AMA, ASM, LKM, ANA)
Immunoglobulins
Ferritin and TSAT
Ceruloplasmin (<60yrs)
Alpha1 antitrypsin
Coeliac Screen

Abnormal → **Refer** Gastro/ Hep

Fatty Liver on USS → **FIB4**
- <1.3 (<65) <2 (>65) → Manage risks including reduction in alcohol intake/ weight reduction strategies. Repeat LFTs at 2/3 months
- >1.3 (<65) >2 (>65) → **Fibroscan**
  - <8 → Manage risks including reduction in alcohol intake/ weight reduction strategies. Repeat LFTs at 2/3 months
  - 8 - 16 / ≥ 16 → **Refer** Gastro/ Hep

Additional Info Pop Up

Signpost to Sexual Health Service

Additional Info Pop Up

If LFTs persistently raised, consider Liver Screen
Where NAFLD reassess every 3 years

Additional Info Pop Up

Gilbert's syndrome

Isolated raised **BILIRUBIN** (all other LFTs normal) → Commonly Gilberts Syndrome. Request conjugated bilirubin to clarify.
- Unconjugated > 20% - likely Gilberts Syndrome
- Consider intravascular haemolysis → **FBC Blood Film Reticulocyte Count Haptoglobin LDH** → **If abnormal consider haematology referral**
- Conjugated bilirubin > 30% → Consider: Drugs e.g. phenothiazines, sulfonamides & carbimazole Dubin-Johnson Syndrome Rotor's Syndrome → **USS & Refer Gastro OR Jaundice/ Suspected cancer pathway**