

METRO NORTH HOSPITAL AND HEALTH SERVICE HEPATOLOGY DEPARTMENTS

Adult Referral Evaluation and Management Guidelines

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EVALUATION AND MANAGEMENT GUIDELINES

For Emergency Referrals: Phone on call Hepatology Registrar via:

Royal Brisbane & Women's Hospital switch - (07) 3646 8111

The Prince Charles Hospital switch - (07) 3139 4000

and send patient to the Department of Emergency Medicine (DEM) at their nearest hospital.

Category 1

- i. Appointment within thirty (30) days is desirable; AND
- ii. Condition has the potential to require more complex or emergent care if assessment is delayed; AND
- iii. Condition has the potential to have significant impact on quality of life if care is delayed beyond thirty (30) days.

Category 2

- i. Appointment within ninety (90) days is desirable; AND
- ii. Condition is unlikely to require more complex care if assessment is delayed; AND
- iii. Condition has the potential to have some impact on quality of life if care is delayed beyond ninety (90) days.

Category 3

- i. Appointment is not required within ninety (90) days; AND
- ii. Condition is unlikely to deteriorate quickly; AND
- iii. Condition is unlikely to require more complex care if assessment is delayed beyond 365 days.

The Hepatology Department provides a high standard of complex patient care. Our Outpatient waiting times are available on the <http://www.health.qld.gov.au/hospitalperformance> website.

All urgent cases must be discussed with the on call Hepatology Registrar. Contact through RBWH switch (07) 3646 8111, TPCH (07) 3139 4000 to obtain appropriate prioritisation and treatment. Urgent cases accepted via phone must be accompanied with a written referral and a copy faxed immediately to the Central Patient Intake Unit: 1300 364 952.

When possible all non-metropolitan patients referred must include travel, accommodation, and escort arrangements. An inpatient bed may not be possible or relevant once the patient has been assessed by the Hepatology department.

Referrals containing insufficient information or that are illegible will be returned to the referral centre. This may result in delayed appointment/treatment for your patient.

HEPATOLOGY DEPARTMENTS

Royal Brisbane and Women's Hospital (RBWH)

Level 9, Ned Hanlon Building, RBWH

The Prince Charles Hospital (TPCH)

Specialist Clinics, Ground Floor

IN-SCOPE FOR HEPATOLOGY OUTPATIENT SERVICES

Please note this is not an exhaustive list of all conditions for outpatient services and does not exclude consideration for referral unless specifically stipulated in the out-of-scope section.

- Abnormal liver function tests / jaundice
- Autoimmune liver disease / Autoimmune Hepatitis (AIH) / Primary Biliary Cirrhosis (PBC) / Primary Sclerosing Cholangitis (PSC)
- Elevated iron studies
- Hepatic steatosis / Non-alcoholic fatty liver disease (NAFLD)
- Hepatitis B Virus
- Hepatitis C Virus
- Liver cirrhosis
- Space occupying liver lesion

OUT-OF-SCOPE FOR HEPATOLOGY OUTPATIENT SERVICES

Not all services are funded in the Queensland public health system. The following are not routinely provided in a public Hepatology service.

- No out of scope conditions noted

EMERGENCY

If any of the following are present or suspected arrange immediate transfer to the emergency department.

- Potentially life threatening symptoms suggestive of:
 - Acute severe GI bleeding
 - Acute liver failure
 - Sepsis in a patient with cirrhosis
 - Severe encephalopathy in a patient with liver disease

METRO NORTH CENTRAL PATIENT INTAKE UNIT (CPI)

<https://www.health.qld.gov.au/metronorth/refer/>

GENERAL REFERRAL INFORMATION

| | |
|--|--|
| <p>Patient's Demographic Details</p> <ul style="list-style-type: none"> • Full name (including aliases) • Date of birth • Residential and postal address • Telephone contact number/s – home, mobile and alternative • Medicare number (where eligible) • Name of the parent or caregiver (if appropriate) • Preferred language and interpreter requirements • Identifies as Aboriginal and/or Torres Strait Islander | <p>Relevant Clinical Information about the Condition</p> <ul style="list-style-type: none"> • Presenting symptoms (evolution and duration) • Physical findings • Details of previous treatment (including systemic and topical medications prescribed) including the course and outcome of the treatment • Body mass index (BMI) • Details of any associated medical conditions which may affect the condition or its treatment (e.g. diabetes), noting these must be stable and controlled prior to referral • Current medications and dosages • Drug allergies • Alcohol, tobacco and other drugs use |
| <p>Referring Practitioner Details</p> <ul style="list-style-type: none"> • Full name • Full address • Contact details – telephone, fax, email • Provider number • Date of referral • Signature | <p>Reason for Request</p> <ul style="list-style-type: none"> • To establish a diagnosis • For treatment or intervention • For advice and management • For specialist to take over management • Reassurance for GP/second opinion • For a specified test/investigation the GP can't order, or the patient can't afford or access • Reassurance for the patient/family • For other reason (e.g. rapidly accelerating disease progression) • Clinical judgement indicates a referral for specialist review is necessary |
| <p>Clinical Modifiers</p> <ul style="list-style-type: none"> • Impact on employment • Impact on education • Impact on home • Impact on activities of daily living • Impact on ability to care for others • Impact on personal frailty or safety • Identifies as Aboriginal and/or Torres Strait Islander | <p>Other Relevant Information</p> <ul style="list-style-type: none"> • Willingness to have surgery (where surgery is a likely intervention) • Choice to be treated as a public or private patient • Compensable status (e.g. DVA, Work Cover, Motor Vehicle Insurance, etc.) |

HEPATOLOGY CONDITIONS

Abnormal Liver Function Tests / Jaundice

Minimum Referral Criteria

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|---|---|
| Category 1 (appointment within 30 days is desirable) | <ul style="list-style-type: none">Abnormal liver function tests with ALT >500 and/or Red flagsPresence of Red flags:<ul style="list-style-type: none">Evidence of liver decompensation i.e. jaundice, ascites, encephalopathy |
| Category 2 (appointment within 90 days is desirable) | <ul style="list-style-type: none">Abnormal liver function tests +/- low platelets and/or splenomegaly without Red flags |
| Category 3 (appointment within 365 days is desirable) | <ul style="list-style-type: none">No category 3 criteria |

Essential referral information (Referral may be rejected without this)

- General referral information
- Alcohol history
- ELFT FBC results
- HBV HCV serology results
- Upper abdominal USS report
- Height, weight and BMI

Additional referral information (Useful for processing the referral)

- Family history of liver disease or blood disorders
- Medication history including non-prescription medications, herbs, supplements
- Recent overseas travel
- Record of previous liver function tests
- Coeliac serology
- Iron studies

Other useful information for referring practitioners (Not an exhaustive list)

- Lifestyle modification (increased activity, dietary, weight, smoking, alcohol)
- Consider cessation of alcohol, hepatotoxic medication, herbal preparations, supplements, NSAIDs and benzodiazepines

Autoimmune Liver Disease (AIH, PBC, PSC)

Minimum Referral Criteria

Category 1

(appointment within 30 days is desirable)

- Autoimmune liver disease with abnormal liver function tests and/or **Red flags**
- Presence of **Red flags**:
 - ALT >500
 - Evidence of liver decompensation i.e. jaundice, ascites, encephalopathy

Category 2

(appointment within 90 days is desirable)

- Diagnosed autoimmune liver disease without **Red flags**

Category 3

(appointment within 365 days is desirable)

- No category 3 criteria

Essential referral information (Referral may be rejected without this)

- General referral information
- Alcohol history
- ELFT FBC INR results
- HBV HCV serology results
- ANA AMA SMA LKM1 results
- Upper abdominal USS reports

Additional referral information (Useful for processing the referral)

- Medication history including non-prescription medications, herbs, supplements
- For PSC: previous history of IBD, colonoscopy and surveillance
- Record of previous liver function tests
- Iron studies
- IgA IgG IgM results
- Height, weight and BMI

Other useful information for referring practitioners (Not an exhaustive list)

- Lifestyle modification (increased activity, dietary, weight, smoking, alcohol)
- Consider cessation of alcohol, hepatotoxic medication, herbal preparations, supplements, NSAIDs and benzodiazepines

Elevated Iron Studies

Minimum Referral Criteria

| | |
|---|--|
| Category 1 (appointment within 30 days is desirable) | <ul style="list-style-type: none">• Ferritin level >1000ug/L +/- elevated transferrin saturation and/or presence of Red flags• Presence of Red flags:<ul style="list-style-type: none">◦ Evidence of liver decompensation i.e. jaundice, ascites, encephalopathy |
| Category 2 (appointment within 90 days is desirable) | <ul style="list-style-type: none">• Ferritin level > 500ug/L and <1000ug/L without presence of Red flags |
| Category 3 (appointment within 365 days is desirable) | <ul style="list-style-type: none">• Normal ferritin with positive HFE gene study |

Essential referral information (Referral may be rejected without this)

- General referral information
- Alcohol history
- ELFT FBC HBV HCV serology fasting glucose and lipid results
- Iron studies
- HFE gene studies
- Upper abdominal USS reports

Additional referral information (Useful for processing the referral)

- Family history of liver disease or blood disorders
- Medication history including non-prescription medications, herbs, supplements
- Record of previous liver function tests
- CRP
- Height, weight and BMI

Other useful information for referring practitioners (Not an exhaustive list)

Medical management

- Consider elevated ferritin in presence of NAFLD or ALD
- Consider venesection if serum ferritin >1000ug/L or C282Y homozygous haemochromatosis
- Monitor iron studies annually if serum ferritin normal
- Screen adult family members if genetically confirmed in index case
- Lifestyle modification (increased activity, dietary, weight, smoking, alcohol)
- There is no need to follow a low iron diet, however people may choose to reduce red meat intake (e.g. to 90-120 g/day)
- Consider cessation of alcohol, hepatotoxic medication, herbal preparations, supplements, NSAIDs and benzodiazepines

Hepatic Steatosis/ Non-alcoholic Fatty Liver Disease (NAFLD)

Minimum Referral Criteria

Category 1

(appointment within 30 days is desirable)

- Hepatic steatosis / NAFLD / Non-alcoholic steatohepatitis (NASH) with **Red flags**
- Presence of **Red flags**:
 - Evidence of liver decompensation i.e. jaundice, ascites, encephalopathy

Category 2

(appointment within 90 days is desirable)

- Hepatic steatosis / NAFLD without **Red flags**

Category 3

(appointment within 365 days is desirable)

- No category 3 criteria

Essential referral information (Referral may be rejected without this)

- General referral information
- Height, weight and BMI
- ELFT FBC HBV HCV serology fasting glucose and lipid results
- Upper abdominal USS reports

Additional referral information (Useful for processing the referral)

- Family history of liver disease or diabetes
- Alcohol and illicit drug history
- Medication history including non-prescription medications, herbs, supplements
- Record of previous liver function tests
- Iron studies/INR

Other useful information for referring practitioners (Not an exhaustive list)

- Manage metabolic factors
- Lifestyle modification (increased activity, dietary, weight, smoking, alcohol)
- Address misuse of other substance (illicit and prescription drugs)
- Consider cessation of alcohol, hepatotoxic medication, herbal preparations, supplements, NSAIDs and benzodiazepines

Hepatitis B Virus

Minimum Referral Criteria

Category 1

(appointment within 30 days is desirable)

- Patients who are HBsAg positive with **Red flags** or ALT >100
- Pregnant women who are HBsAg positive and have HBV DNA >10⁶ IU/ml or abnormal ALT
- Presence of **Red flags**:
 - Evidence of liver decompensation i.e. jaundice, ascites, encephalopathy

Category 2

(appointment within 90 days is desirable)

- Patients who are HBsAg positive without presence of **Red flags**

Category 3

(appointment within 365 days is desirable)

- No category 3 criteria

Essential referral information (Referral may be rejected without this)

- General referral information
- ELFT FBC Alpha fetoprotein (AFP) results
- HBV HCV serology results
- HBV DNA quantitative
- Upper abdominal USS reports

Additional referral information (Useful for processing the referral)

- Medication history including non-prescription medications, herbs, supplements
- Record of previous liver function tests, imaging and/or liver biopsy results
- HIV HDV serology

Other useful information for referring practitioners (Not an exhaustive list)

- HBV DNA quantitative (patient is eligible for one test per year under Medicare)

Medical management

- Screening and vaccination for Hepatitis A for patients
- Screening and vaccination for Hepatitis B of sexual contacts and immediate family members
- Natural history of disease, transmission risks and precautions
 - lifelong monitoring of disease if advanced fibrosis/cirrhosis, disclosure, treatment options
- Lifestyle modification (increased activity, dietary, weight, smoking, alcohol)
- Consider cessation of alcohol, hepatotoxic medication, herbal preparations, supplements, NSAIDs and benzodiazepines

Hepatitis C Virus

Minimum Referral Criteria

| | |
|---|--|
| Category 1 (appointment within 30 days is desirable) | <ul style="list-style-type: none">• Acute and/or chronic Hepatitis C with Red flags or ALT >500• Presence of Red flags:<ul style="list-style-type: none">◦ Evidence of liver decompensation i.e. jaundice, ascites, encephalopathy |
| Category 2 (appointment within 90 days is desirable) | <ul style="list-style-type: none">• Acute and/or chronic Hepatitis C without Red flags |
| Category 3 (appointment within 365 days is desirable) | <ul style="list-style-type: none">• No category 3 criteria |

Essential referral information (Referral may be rejected without this)

- General referral information
- Height, weight and BMI
- ELFT FBC fasting glucose and lipids results
- HBV HCV HIV serology
- HCV RNA qualitative/quantitative and genotype
- Upper abdominal USS reports

Additional referral information (Useful for processing the referral)

- Alcohol and illicit drug history
- Medication history including non-prescription medications, herbs, supplements
- Record of previous liver function tests, imaging and/or liver biopsy results

Other useful information for referring practitioners (Not an exhaustive list)

- Consider alternative referral pathways (local availability) including treatment options in primary care
- HCV RNA (patient is eligible for one test per year under Medicare)

Medical management

- Screening and vaccination for Hepatitis A for patients
- Screening and vaccination for Hepatitis B of sexual contacts and immediate family members
- Natural history of disease, transmission risks and precautions
- Lifelong monitoring of disease for hepatocellular cancer screening with USS and AFP if advanced fibrosis/cirrhosis disclosure and treatment options
- Address misuse of other substance (illicit and prescription drugs)
- Lifestyle modification (increased activity, dietary, weight, smoking, alcohol)
- Consider cessation of alcohol, hepatotoxic medication, herbal preparations, supplements, NSAIDs and benzodiazepines

Liver Cirrhosis

Minimum Referral Criteria

Category 1

(appointment within 30 days is desirable)

- Suspected or confirmed severe fibrosis or cirrhosis with **Red flags**
- Presence of **Red flags**:
 - Evidence of liver decompensation i.e. jaundice, ascites, encephalopathy

Category 2

(appointment within 90 days is desirable)

- Suspected fibrosis or cirrhosis without **Red flags**

Category 3

(appointment within 365 days is desirable)

- No category 3 criteria

Essential referral information (Referral may be rejected without this)

- General referral information
- Family history of liver cancer or other liver disease/s
- Alcohol and medication history
- Height, weight and BMI
- ELFT FBC INR results
- Alpha fetoprotein (AFP) results
- HBV HCV iron studies results
- Upper abdominal USS reports

Additional referral information (Useful for processing the referral)

- Previous endoscopic procedures (date and report)
- Relevant imaging reports
- Record of previous liver function tests, imaging and/or liver biopsy results

Other useful information for referring practitioners (Not an exhaustive list)

Medical management

- Screening and vaccination for Hepatitis A
- Screening and vaccination for Hepatitis B
- Lifelong monitoring of disease with surveillance for hepatocellular cancer screening with USS and AFP if advanced fibrosis/cirrhosis disclosure and treatment options
- Address misuse of other substance (illicit and prescription drugs)
- Consider cessation of hepatotoxic medication, herbal preparations, supplements, NSAIDs and benzodiazepines
- Lifestyle modification (increase activity, dietary, weight, smoking, alcohol)

Space Occupying Liver Lesion

Minimum Referral Criteria

Category 1

(appointment within 30 days is desirable)

- Space occupying liver lesion on imaging

Category 2

(appointment within 90 days is desirable)

- No category 2 criteria

Category 3

(appointment within 365 days is desirable)

- No category 3 criteria

Essential referral information (Referral may be rejected without this)

- General referral information
- Height, weight and BMI
- History of liver disease and/or previous cancer/s
- ELFT FBC Alpha fetoprotein (AFP) results
- HBV HCV serology results
- Relevant imaging reports

Additional referral information (Useful for processing the referral)

- Family history of HCC
- Past history of cancer e.g. colorectal cancer, gastric cancer
- History of liver disease
- Alcohol history
- Medication history including non-prescription medications, herbs, supplements
- INR results