Australian STI Management Guidelines for Use in Primary Care

Hepatitis C

Overview

- Almost all patients can be successfully cured with direct-acting antiviral (DAA) therapy.
- Populations at risk include: people with current or history of injecting drug use; previous incarceration; born in hepatitis C virus (HCV) endemic countries and regions; received blood products before 1990 or in developing countries; engage in condomless anal sex with a partner with HCV infection, participate in group sex and current HIV pre-exposure prophylaxis (PrEP) use (See Hepatitis Australia – hepatitisaustralia.com).
- Hepatitis C may cause acute hepatitis (uncommon).
- Chronic HCV is defined as a HCV VL detected in the absence of clinical features of acute hepatitis infection.
- Disease progression is usually slow but may cause cirrhosis, liver failure and hepatocellular carcinoma.
- Disease progression can be affected by age at infection, duration of infection, alcohol and other drug use, co-infection with HIV or hepatitis B virus (HBV), male gender, stage of fibrosis and higher alanine aminotransferase (ALT) levels, other comorbid conditions e.g. diabetes.
- Almost all patients can be successfully treated with direct-acting antiviral (DAA) therapy.
- Ensure your patient uses new equipment if they continue to inject drugs.

Cause

- Infection with the single-stranded RNA hepatitis C virus.

Clinical presentation

Symptoms
• Asymptomatic infection: common • Acute hepatitis: uncommon. Symptoms include upper right quadrant pain, lethargy, nausea, fever, anorexia for a few days then jaundice. • Chronic hepatitis: infection lasting over 6 months.
Complications
• Cirrhosis • Hepatocellular carcinoma

Diagnosis

Useful resources –

ASHM Decision making tool for hepatitis C

AST to Platelet Ratio Index (APRI) Calculator

Site/Specimen	Test	Consideration
Blood	Hepatitis C antibody (Hep C Ab)	Detected: Infection with hepatitis C (past or current) Not detected: no evidence of infection
	HCV RNA (NAAT)/HCV PCR	Detected: active infection Not detected: past/cleared infection; never had infection NB: Use for test of cure or test of re-infection
	Liver function test (LFT)	Upper limits of normal ALT – male sex 30 IU/L; female sex 19 IU/L, AST 40/L for APRI calculator.
	HCV genotype	Viral subtype: not required for treatment but is recommended as part of clinical assessment where possible
	Full blood count	Platelet count important for APRI score
	HCV resistance testing	Done by a specialist to guide treatment if initial treatment has failed
	AFP	Increasing levels may indicate Hepatocellular carcinoma (HCC). Upper limit of normal ≤ 10 May be elevated in other conditions

Online calculator	APRI	Above 1: increased likelihood of cirrhosis
Finger prick blood test	HCV RNA Point-of-care test	Result in 60 minutes – useful for test and treat models of care

RNA – Ribonucleic acid NAAT – Nucleic Acid Amplification Test PCR – Polymerase chain reaction ALT – Alanine aminotransferase AST – Aspartate aminotransferase	SVR- Sustained Viral Response (TOC 12 weeks after the completion of treatment) AFP- Alpha-fetoprotein APRI – AST/platelet ratio index

- HCV PCR is required for patients with previously cleared or treated infection who require ongoing testing.
- About 75% of people with hepatitis C infection will progress to chronic hepatitis.
- Past cleared hepatitis C infection does not provide immunity against re-infection.
- Medicare Benefits Schedule (MBS): check the schedule for pre-treatment, on-treatment and post-treatment item number and testing amounts per 12-month periods at: https://www1.health.gov.au/internet/main/publishing.nsf/Content/path-comp-hep-table
- Never repeat an HCV antibody test if initially positive.
- **Reflex testing** is an HCV PCR test done if an HCV antibody test is positive. The opportunity to diagnose HCV status is done without having to recall the client. Two EDTA samples need to be collected with the initial serum sample. Request HCV PCR if HCV antibody (anti-HCV) confirmed positive (ensure with the local pathology service if this test is possible, as sample preparation will differ in metropolitan, regional and rural areas).

Management

Situation	Recommended	Alternative
Acute hepatitis	Test for HCV PCR 6 months after possible infection date – the patient may have cleared the infection.	Speak to a specialist if the patient is unwell.

Chronic infection	All positive patients should be treated. http://www.hepcguidelines.org.au/	
Complications	Referral to specialist if complications suspected e.g. cirrhosis. The Hepatitis C Consensus Statement states: All people with cirrhosis should be referred to, and managed in consultation with, a specialist familiar with the management of this condition 1208.	Commence treatment and send the patient to a specialist or speak to a specialist.

Treatment

- All HCV PCR positive patients should be given the opportunity to be treated.
- Treatment advice and initiation in collaboration with HCV treatment providers until you are comfortable with the decision-making process and prescribing.

Other immediate management decisions

- Vaccinate for hepatitis A and B, if susceptible.
- Screen for sexually transmitted infections (STIs) and other blood borne viruses (HIV and syphilis).
- Provide patient with fact sheet.
- Notify the state/territory health department if required (only if HCV PCR detected).

Special Treatment Situations

Situation	Recommended
Pregnancy	Refer to antenatal care and blood borne viruses.
Babies and children	All babies of HCV RNA positive women should be tested with an HCV PCR test at 8 weeks of age and then 4-6 weeks later. If positive, the baby will need specialist management. See ASHM Testing Portal. Treatment for HCV PCR positive children from ≥ 12 years old with DAA.
Over 65 years old	No dose adjustment required.

Past failed treatment or current treatment failure (positive SVR)	Refer to a specialist.
Re-infection	Treat again.
Co-infection with HIV, HBV	Refer to specialist services.
Current injecting drug use	Current injecting drug use does not exclude patient from treatment initiation.

Contact Tracing

- Low risk for sexual exposure, contact tracing not generally performed for sexual partners
- Contacts via parenteral exposure (shared needles, injecting equipment) should be tested if possible
- Children of mothers who are HCV PCR positive and not tested in the post-natal period should be tested. DAA are available for children ≥ 12 years of age (see 'special situations')

See Australasian Contract Tracing Manual – Hepatitis C for more information

Follow Up

Patients with chronic hepatitis C should be assessed for other causes of hepatitis (e.g. alcohol, fatty liver), and should be counselled to reduce these factors if relevant (e.g. reduced alcohol intake)

Test of cure (TOC)

- TOC-HCV PCR at 4 weeks after completion of treatment, if negative, counsel about possible risk behaviour and re-infection; if positive, retest at 12 weeks post treatment.
- Following successful treatment or natural clearance of hepatitis C virus, HCV RNA will be negative although hepatitis C antibody will remain

positive
- Refer to a specialist if the SVR is positive

Retesting

- If your patient has ongoing risk factors annual HCV RNA test. If re-infected offer re-treatment and harm reduction strategies
- Only use HCV PCR on patients with previous HCV infection
- Clearance of hepatitis C does not provide immunity from re-infection. Retesting is required if there is a continued risk of re-exposure

Auditable Outcomes

- 100% of hepatitis C antibody positive patients have a hepatitis C RNA performed
- 100% of hepatitis C antibody positive/RNA positive patients are offered HCV treatment

Resources

- ASHM Decision making tool for hepatitis C
- ASHM Decision making tool for hepatitis C in children

Endorsement: These guidelines have been endorsed by the Blood Borne Viruses and Sexually Transmitted Infections Standing Committee (BBVSS).

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