Clinical guidance for treating hepatitis C virus infection: a summary

Four key questions before commencing pan-genotypic treatment for hepatitis C virus (HCV) infection

- Is HCV RNA detectable?
- Is cirrhosis present?
- Is HBV–HCV or HIV–HCV coinfection present?
- Are there potential drug–drug interactions?

Checklist for pre-treatment assessment for people with hepatitis C virus (HCV) infection

HCV virology: • Anti-HCV (serology) • HCV PCR • HCV genotype (may be considered)	 • Indicates HCV exposure • Confirms current HCV infection • May influence choice and duration of treatment regimen
HCV treatment history — previous regimen and response	Determines treatment regimen and duration
Potential for non-adherence?	Consider medical and social issues that may be barriers to medication adherence
Alcohol intake history	Cofactor for cirrhosis
Check for drug–drug interactions	**www.hep-druginteractions.org** Includes prescribed, over-the-counter, herbal, illicit drugs
Pregnancy discussion*	
Weight and body mass index	Non-alcoholic fatty liver disease is a cofactor for cirrhosis
Signs of chronic liver disease	
FBE	• Baseline haemoglobin level • Low platelets — suspect portal hypertension
• LFTs and INR • eGFR	• Low albumin, raised bilirubin, raised INR suggest advanced cirrhosis • Patients with severe renal impairment (eGFR < 30 mL/min/1.73 m^2 or haemodialysis) should be in specialist care
HBV (HBsAg, anti-HBc, anti-HBs), HIV,† HAV serology	• Specialist referral is recommended for people with HBV or HIV coinfection • If seronegative, vaccinate against HAV, HBV
Cirrhosis assessment‡ • e.g. FibroScan® • e.g. APRI	Thresholds consistent with no cirrhosis: • Liver stiffness < 12.5 kPa • APRI < 1.0 Specialist referral is recommended for people with cirrhosis

anti-HBc = hepatitis B core antibody; anti-HBs = hepatitis B surface antibody; APRI = aspartate aminotransferase to platelet ratio index; DAA = direct-acting antiviral; eGFR = estimated glomerular filtration rate; FBE = full blood examination; HAV = hepatitis A virus; HBsAg = hepatitis B surface antigen; HBV = hepatitis B virus; INR = international normalised ratio; LFT = liver function test; PCR = polymerase chain reaction.

* As there are no safety data for the use of any DAA regimen during pregnancy, treatment of pregnant women is not recommended.

† If testing for HBV and HIV cannot be performed before starting DAA therapy, especially in high-prevalence clinics where people are being screened for HCV using point-of-care tests, HBV and HIV testing should be performed within 4 weeks of starting DAAs.

‡ If cirrhosis assessment cannot be organised in a timely fashion, people should immediately start hepatitis C treatment, especially when there is concern about loss to follow-up.

Support for people living with hepatitis C

People living with hepatitis C can receive information, support and referral from community services, including:

- Hepatitis Australia: http://www.hepatitisaustralia.com
- Hepatitis Information Line: 1800 437 222
- Australian Injecting & Illicit Drug Users League: http://www.aivl.org.au

On-treatment and post-treatment monitoring for virological response

Routine monitoring for an 8–12-week treatment regimen:*

Week 0	• Pre-treatment blood tests, including LFTs, HCV PCR
Week 12† post-treatment (SVR12)	• LFTs, HCV PCR (qualitative)

* For more intensive monitoring that may be required in certain populations and for management of treatment interruption, see *Australian recommendations for the management of hepatitis C virus infection: a consensus statement (2022)*, http://www.gesa.org.au.

† Opportunistic testing of HCV RNA to check for SVR at any time beyond 4 weeks after treatment completion (SVR4) is adequate, especially when there is concern about subsequent loss to follow-up.

HCV = hepatitis C virus; LFT = liver function test; PCR = polymerase chain reaction; SVR12 = sustained virological response at least 12 weeks after treatment (cure).

Ongoing monitoring of people after successful hepatitis C treatment outcome (SVR)

SVR, no cirrhosis and normal LFT results (male, ALT ≤ 30 U/L; female, ALT ≤ 19 U/L):

- People who are cured do not require clinical follow-up for hepatitis C

SVR and abnormal LFT results (male, ALT > 30 U/L; female, ALT > 19 U/L):

- Patients with persistently abnormal LFT results require evaluation for other liver diseases and should be referred for gastroenterology review. Investigations to consider include: fasting glucose level, fasting lipid levels, iron studies, ANA, ASMA, anti-LKM antibodies, total IgG and IgM, AMA, coeliac serology, copper level, caeruloplasmin level and α-1-antitrypsin level

SVR and cirrhosis:

- Patients with cirrhosis require long-term monitoring and should be enrolled in screening programs for:
  - hepatocellular carcinoma
  - clinically significant portal hypertension
  - osteoporosis

SVR and risk of reinfection:

- Patients with ongoing risk of HCV infection should have at least annual HCV RNA testing
- Anti-HCV antibodies will remain positive in all people with prior exposure, and this does not require repeated testing

ALT = alanine aminotransferase; AMA = anti-mitochondrial antibody; ANA = anti-nuclear antibodies; ASMA = anti-smooth muscle antibodies; LFT = liver function test; LKM = liver–kidney microsome; SVR = sustained virological response at least 12 weeks after treatment (cure).

GESA Gastroenterological Society of Australia

AUSTRALASIAN HEPATOLOGY ASSOCIATION

ASID

ashm
Supporting the HIV, Viral Hepatitis and Sexual Health Workforce

hepatitis australia

Recommended pan-genotypic treatment protocols for people with hepatitis C virus (HCV) infection and compensated liver disease, including people with HCV–HIV coinfection

			Treatment duration	
Regimen	HCV genotype	Pill number	No cirrhosis	Cirrhosis
First-line regimens for people who are treatment-naive				
Sofosbuvir 400 mg, orally, daily + Velpatasvir 100 mg, orally, daily	1–6	1 pill daily	12 weeks	12 weeks
Glecaprevir 300 mg, orally, daily + Pibrentasvir 120 mg, orally, daily	1–6	Once daily (3 pills)	8 weeks	8 weeks*
Regimen for people who do not respond to first-line therapy due to virological failure				
Sofosbuvir 400 mg, orally, daily + Velpatasvir 100 mg, orally, daily + Voxilaprevir 100 mg, orally, daily	1–6	1 pill daily	12 weeks	12 weeks

HIV = human immunodeficiency virus.

* A treatment duration of 12 weeks may be considered for patients with compensated cirrhosis, at the discretion of the prescriber.