



HCV Diagnosis and Treatment Candidates

Diagnosis of HCV Infection

HCV antibody test

REACTIVE

HCV RNA test

DETECTED

Current HCV infection

Adapted from: CDC. Testing for HCV infection: An update of guidance for clinicians and laboratorians. MMWR 2013;62(18)

Goals of Therapy

- Reduce mortality
- Prevent liver-related health complications
- Achieve sustained virologic response (SVR)
 - Undetectable HCV RNA for at least 12 weeks after treatment completion
 - Achieving SVR = **virological cure**

*The following patients are **not eligible** for simplified treatment:

- Prior hepatitis C treatment (i.e. treatment-experienced patients)
- HBsAg positive
- Current pregnancy
- Known or suspected hepatocellular carcinoma
- Prior liver transplantation
- Current or prior episode of decompensated cirrhosis (Child-Turcotte-Pugh [CTP] score ≥7)
- Cirrhosis **AND** end-stage renal disease (eGFR < 30 mL/min/m2)

Who is Eligible for Simplified Treatment?

- **Treatment-naïve adult** patients without cirrhosis or with compensated cirrhosis (Child-Pugh A) who do not belong in any of the special patient groups*
- The **majority** of patients are eligible for **simplified treatment***

Pre-treatment Assessment

Assess at any point prior to starting treatment

- Quantitative HCV RNA (IU/mL)
- HIV antigen/antibody
- HBV (HBsAg, anti-HBc, and anti-HBs)
- Pregnancy (serum testing)
- HCV genotype (if considering sofosbuvir/velpatasvir in a patient with cirrhosis)
- CTP score (if considering simplified treatment in a patient with cirrhosis)
- FIB-4 score
- Evidence of cirrhosis
 - Transient elastography, serologic tests, prior liver biopsy, or other clinical evidence of cirrhosis

Assess within 6 months prior to starting treatment

- Complete blood count (CBC)*
- Hepatic function panel*
- Estimated glomerular filtration rate (eGFR)*
- International normalized ratio (INR)*
- Liver ultrasound (if considering simplified treatment in a patient with cirrhosis)

*Test within 3 months prior to initiating (not within 6 months) if initiating simplified treatment in a patient with compensated cirrhosis.

CTP: Child-Turcotte-Pugh

FIB-4: Fibrosis-4

Monitoring

- **No routine laboratory** monitoring required for most patients
- Monitor for **side effects** in all patients
- Monitor for **hypoglycemia** in patients taking **medications for glycemic control***
- Monitor for **subtherapeutic INR** in patients taking **warfarin***
- Monitor for liver injury / worsening liver tests in patients with **compensated cirrhosis**
- Assess HCV RNA (plus hepatic function in patients with cirrhosis) **at least 12 weeks** after treatment completion to confirm achievement of SVR

*Clearance of HCV infection may lead to changes in liver function, which may impact response to these medications

Simplified Pangenotypic Treatment Options

Glecaprevir 100 mg / Pibrentasvir 40 mg (Mavyret)

Take **3 tablets (100 mg/40 mg x 3)** by mouth once daily **with food** for **8 weeks**

- Use with **ethinyl estradiol-containing medications** (such as combined oral contraceptives) is **not** recommended due to concerns for **ALT elevation**
- Coadministration with **statins** increases the risk for myopathy and rhabdomyolysis (fluvastatin, pravastatin, rosuvastatin, and pitavastatin may require dose adjustments; **avoid atorvastatin, lovastatin, simvastatin**)

Sofosbuvir 400 mg / Velpatasvir 100 mg (Epclusa)

Take 1 tablet (400 mg/100 mg) by mouth once daily **with or without food** for **12 weeks**

- Test HCV genotype for patients with compensated cirrhosis; those with genotype 3 **without** NS5A resistance-associated substitution Y93H may receive 12 weeks of Epclusa
- Separate dosing from **acid-reducing agents**,
 - **Antacids**: separate from Epclusa by 4 hr
 - **H2RAs**: give simultaneously or separate from Epclusa by 12 hr; avoid doses higher than famotidine 40 mg BID (or equivalent)
 - **PPIs**: not recommended; if necessary, take Epclusa with food 4 hr before omeprazole 20 mg

Shared Counseling Points

- Store in the **original container**
- Avoid missing doses
- Common side effects are **headache** and **fatigue**
- Avoid excess alcohol use
- Risk of **HBV reactivation** in coinfecting patients (during or after HCV treatment)
- **High risk for drug interactions**:
 - All direct-acting antivirals should be avoided with strong CYP3A4 inducers
 - Avoid amiodarone use with sofosbuvir-containing regimens

Check with healthcare provider before starting new meds, supplements and herbal products

Follow Up

If SVR was achieved

- No liver-related follow-up needed in patients without cirrhosis
- **Patients with cirrhosis**: monitor (ultrasound) for hepatocellular carcinoma every 6 months **AND** monitor (endoscopic surveillance*) for esophageal varices

*Follow the AASLD's portal hypertensive bleeding in cirrhosis guidelines

- If the patient is at **ongoing risk for HCV infection** (e.g., IV drug use, MSM engaging in unprotected sex) test HCV RNA **annually**

If SVR was NOT achieved

- **Refer to specialist** for evaluation for **retreatment**
- Assess for disease progression **every 6-12 months** until retreatment begins
- **Patients with cirrhosis**: ultrasound **every 6 months** for hepatocellular carcinoma