HEPATITIS C ONLINE

Simplified Treatment Algorithm for Hepatitis C

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Disclosures

- Dr. Corcorran does not have any disclosures.

Overview

- Introduction to simplified treatment.
  - Who is eligible
  - Pretreatment assessment
- Recommended direct acting antiviral (DAA) regimens
  - Sofosbuvir-velpatasvir (*Epclusa*)
  - Glecaprevir-pibrentasvir (*Mavyret*)
- Common drug-drug interactions to be aware of
- On-treatment and post-treatment laboratory evaluation

Simplified Treatment Algorithm

WHO IS ELIGIBLE FOR SIMPLIFIED TREATMENT:
Adults with chronic HCV infection, regardless of genotype, who DO NOT HAVE DECOMPENSATED CIRRHOSIS and who are HCV TREATMENT-NAÏVE.

WHO IS NOT ELIGIBLE FOR SIMPLIFIED TREATMENT:
Patients with any of the following conditions or characteristics are not eligible for the simplified treatment algorithm.

- Prior HCV treatment
- Decompensated cirrhosis
- Coinfection with hepatitis B virus (HBV)
- Currently pregnant
- Known or suspected hepatocellular carcinoma (HCC)
- History of liver transplantation
- Patients with compensated cirrhosis and end-stage renal disease (ESRD)

Source: AASLD/IDSA HCV Guidance: Recommendations for Testing, Managing, and Treating Hepatitis C

Simplified Treatment Algorithm: Pretreatment Assessment

1. Calculate a FIB-4
2. Assess for cirrhosis
3. Medication reconciliation, including over the counter medications
4. Assess for potential drug-drug interactions
5. Educate the patient on medication administration, adherence and risk for reinfection
6. Pre-treatment laboratory assessment

Source: AASLD/IDSA HCV Guidance: Recommendations for Testing, Managing, and Treating Hepatitis C

Pretreatment Laboratory Assessment

A. Within 6 months of treatment initiation for patients without cirrhosis and within 3 month of treatment initiation for those with compensated cirrhosis:
   i. Complete blood count
   ii. Hepatic function panel
   iii. Calculate glomerular filtration rate

B. Any time prior to initiating treatment:
   i. Quantitative HCV RNA
   ii. HIV antigen/antibody test
   iii. Hepatitis B surface antigen

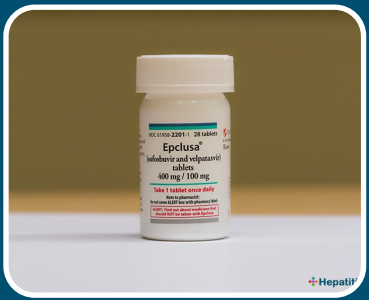
C. Before starting treatment:
   i. Serum pregnancy testing and counseling on the risk related to HCV medications should be provided to persons capable of becoming pregnant.

Source: AASLD/IDSA HCV Guidance: Recommendations for Testing, Managing, and Treating Hepatitis C

Recommended DAA Medications for Treatment of HCV in the Simplified Treatment Algorithm

Glecaprevir-Pibrentasvir (*Mavyret*)

- 3 tablets daily for 8 weeks
- Taken with food



Sofosbuvir-Velpatasvir (*Epclusa*)

- 1 tablet daily for 12 weeks
- Patients with GT3 and cirrhosis require NS5A RAS testing

Glecaprevir-Pibrentasvir

- First pangenotypic NS3/4A protease inhibitor-NS5A inhibitor combination to be approved
- Not an option for patients with decompensated cirrhosis due to the presence of a protease inhibitor.
- SVR-12 rates ≥95% for treatment naïve individuals with and without compensated cirrhosis

Glecaprevir-Pibrentasvir: Notable Drug-Drug Interactions

1. **Statins:** Co-administrations leads to increased plasma concentrations of statins and can increase the risk for myopathy, including rhabdomyolysis.

2. **Ethinylestradiol:** Co-administration increase levels of ethinylestradiol, leading to increased risk of ALT elevation.

3. **Select HIV ART:** Protease inhibitors and pharmacologic boosters (e.g., ritonavir and cobicistat) can increase serum concentrations of glecaprevir. Select NNRTIs, including efavirenz and etravirine, which can decrease plasma concentrations of glecaprevir-pibrentasvir.

Sofosbuvir-Velpatasvir

- Pangenotypic NS5A-NS5B inhibitor, given as a single pill combination.
- Safe for use in patients with decompensated cirrhosis.
- SVR-12 rates ≥95% for treatment naïve individuals with and without compensated cirrhosis

Sofosbuvir-Velpatasvir: Notable Drug-Drug Interactions

1. **Proton pump inhibitors:** Co-administration leads to decreased plasma concentrations of sofosbuvir-velpatasvir.

Summary of Glecaprevir-Pibrentasvir vs. Sofosbuvir-Velpatasvir

Medication	Glecaprevir-Pibrentasvir	Sofosbuvir-Velpatasvir
Trade Name	Mavyret	Epclusa
Adult dose (oral)	Glecaprevir 300 mg and pibrentasvir 120 mg as 3 tablets once daily	Sofosbuvir 400 mg and velpatasvir 100 mg as one single tablet once daily
Duration	8 weeks	12 weeks
Food requirement	Yes	No
Hepatic impairment	Contraindicated in patients with decompensated cirrhosis (Child B or C)	No dose adjustment necessary for any degree of cirrhosis (Child A, B or C)
Renal impairment	No dosage adjustment in patients with any degree of renal impairment, including dialysis	No dosage adjustment in patients with any degree of renal impairment, including dialysis
Notable drug interaction(s)	- Statins - Ethinylestradiol - HIV protease inhibitors and select NNRTIs	- Proton pump inhibitors (PPIs)

Laboratory Monitoring

- Most patients will not require any on-treatment laboratory monitoring.
- Patients taking diabetes medications should monitor for hypoglycemia.
- Patients on warfarin should have INR monitoring to evaluate for subtherapeutic anticoagulation.
- In patients with compensated cirrhosis, providers may order liver function testing to monitor for liver injury during treatment.
- All patients should undergo repeat HCV RNA and liver function testing 12 weeks post-treatment to assess for HCV cure and transaminase normalization.

Source: AASLD/IDSA HCV Guidance: Recommendations for Testing, Managing, and Treating Hepatitis C

Hepatitis C Online

A free educational website from the
University of Washington Infectious Diseases Education & Assessment (IDEA) program

Contributors

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Acknowledgments

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