Hepatitis C Treatment Considerations With Pan-Genotypic Medications

February 5, 2020 By Connie M. Welch

Treatment for hepatitis C has improved greatly over the past decades including pan-genotypic medications designed to treat more than one genotype (virus strains) at the same time.

Pan-genotypic treatments are power-packed once-daily combination pills offering high cure rates, few side effects and shorter treatment duration options to genotypes 1, 2, 3, 4, 5, 6, including subtypes.

Are pan-genotypic treatments the magic bullet to curing all hepatitis C patients with a variety of liver and medical conditions? Considerations and restrictions need to be observed for each treatment according to the patient's liver and medical condition.

U.S. FDA Approved Pan-Genotypic Treatments

- Epclusa (sofosbuvir/velpatasvir). A combination of an NS5A inhibitor (sofosbuvir) and an NS5B inhibitor (velpatasvir). Epclusa is marketed by Gilead Sciences.
- Mavyret (glecaprevir/pibrentasvir). A fixed-dose combination of glecaprevir, a hepatitis C virus (HCV) NS3/4A protease inhibitor, and pibrentasvir, an HCV NS5A inhibitor. Mavyret is marketed by AbbVie.
- Vosevi (sofosbuvir, velpatasvir, voxilaprevir). Vosevi is marketed by Gilead Sciences.

Considerations & Restrictions

Eplcusa (sofosbuvir/velpatasvir)

- Also available as a generic in the U.S. from Asegua Therapeutics (Gilead Science Subsidiary).
- Cure rate of 98% in clinical trials.
- Eplcusa can be used for patients with compensated or decompensated cirrhosis or without cirrhosis.

- Eplcusa can be used for patients with co-infections like Hep C and HIV-1.
- Dosage and treatment duration for Epclusa is a once-daily pill with or without food, taken for 12 weeks. Eplcusa can be taken with or without ribavirin.
- Common side effects include; headache and fatigue. If ribavirin is used, side effects can include possible anemia, fatigue, nausea, headache, insomnia, and diarrhea were reported in clinical trials.
- Warning: Epclusa may cause serious slowing of the heart rate (symptomatic bradycardia). Cases requiring pacemaker intervention have been reported when taking amiodarone (heart medication) is used in treatments including sofosbuvir.
- Epclusa is not recommended for patients who take amiodarone, topotecan, or proton-pump inhibitors, oxcarbazepine, phenobarbital, phenytoin, rifabutin, rifapentine, efavirenz, and tipranavir/ritonavir. Certain drugs that may reduce of the amount of Epclusa in the blood could reduce efficacy of treatment are not recommended.

Mavyret (glecaprevir/pibrentasvir)

- Cure rates from 95% to 99% depending on genotype.
- Mavyret used to treat adults and children 12 years old or weighing at least 99 pounds who have chronic hepatitis C.
- Mavyret is for patients without cirrhosis or with compensated cirrhosis.
- Also used for those with genotype 1 previously treated with a hep C NS5A inhibitor or an NS3/4A protease inhibitor, but not both.
- Dosage and treatment duration for Mavyret is three tablets taken once per day with food. Mavyret is typically taken for 8 weeks in most cases but can be taken for 12, or 16 weeks depending on liver condition. Mavyret is taken without ribavirin.
- Common side effects include; headache, fatigue, nausea, and some with diarrhea.
- Do not take Mavyret if you have certain liver problems like decompensated cirrhosis or if you take medications atazanavir or rifampin.
- Warning of possible hepatitis B reactivation. Important prior to treatment with Mavyret patients

need to be tested for hepatitis B. If you have ever had hep B, there is a possibility of hep B becoming active again during or after treatment with Mavyret. Reactivation of hep B may cause serious liver problems, including liver failure and death. You will need to be monitored closely by your physician during and after treatment.

Vosevi (sofosbuvir, velpatasvir, voxilaprevir)

- Cure rate of 96% to 97%.
- Vosevi treats adults without cirrhosis or with compensated cirrhosis
- Vosevi can be used for patients with all genotypes who have been previously treated with direct-acting antiviral drug sofosbuvir, or other treatment for Hep C that inhibit the protein NS5A.
- Vosevi can also be used for patients with genotypes 1a or 3 previously treated with sofosbuvir without an NS5A inhibitor.
- Dosage and treatment duration for a fixed-dose tablet taken once per day at a scheduled time, taken with food. Vosevi is taken for 12 weeks.
- Common side effects include; Vosevi (sofosbuvir, velpatasvir, voxilaprevir), headache, fatigue, diarrhea, and nausea.
- Warning: Vosevi can cause hepatitis B reactivation. Patients need to be tested for hep B prior to beginning treatment. If they have had hep B prior patients will need to be closely monitored during and after treatment by their physician.
- Do not take Vosevi if you have medications containing rifampin (Rifater, Rifamate, Rimactane, Rifadin).

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