

## Hepatitis C

### Background

Estimated 3.5 million persons in the living with Hep C in the US (CDC estimation). Big increase in new acute cases from 2005 to 2015 (possibly due to opioid epidemic). It is estimated that 75% of the patients with HCV were born between 1945 and 1965 and 50% of patients are unaware.

The most common risk factor for HCV is injection drug use. Can be transmitted sexually but higher risk with MSM (especially those with HIV). Experts projecting that HCV deaths will peak around the year 2030 to 2035 with rates as high as 36,000 per year. Then the rates will decrease as more providers treat the disease.

The American Association for the Study of Liver Diseases (AASLD) and Infectious Diseases Society of America (IDSA) have guidelines for when to test patients for HCV. They include patients with admitted injection-drug use as well as intranasal illicit drug use. They also recommend testing patients with long-term hemodialysis, getting tattoos in unregulated setting, children born to HCV positive mothers, prior recipients of transfusions or organ transplants, or people who were ever incarcerated.

### Initial Workup

Alcohol history – CAGE Questionnaire

Injection drug use history

Staging of liver fibrosis

Liver disease complications

Other medical comorbidities

Prior HCV treatment

### Indirect Markers of Fibrosis

Aspartate Aminotransferase-To-Platelet Ratio Index (APRI)

FIB-4

Fibroindex

Forns Index

Hepascore/Fibrotest

### Treatment Options

NS3/4A Protease Inhibitors	NS5A Inhibitors	NS5B Polymerase Inhibitors
<b>Boceprevir</b>	<b>Daclatasvir</b>	<b>Dasabuvir</b>
<b>Glecaprevir</b>	<b>Elbasvir</b>	<b>Sofosbuvir</b>
<b>Grazoprevir</b>	<b>Ledipasvir</b>	
<b>Paritaprevir</b>	<b>Ombitasvir</b>	
<b>Simeprevir</b>	<b>Pibrentasvir</b>	
<b>Telaprevir</b>	<b>Velpatasvir</b>	
<b>Voxilaprevir</b>		

### **Treatment for HCV Genotype 1a - Recommended**

***Elbasvir-Grazoprevir (Zepatier)*** – 1 tablet once daily for 12 weeks

***Glecaprevir-pibrentasvir (Mavyret)*** – 3 tablets once daily for 8 weeks

***Sofosbuvir-Velpatasvir (Epclusa)*** – 1 tablet once daily for 12 weeks

***Ledipasvir-Sofosbuvir (Harvoni)*** – 1 tablet once daily for 12 weeks

-Harvoni approved for genotype 1a for 8 weeks in patients who are non-black, HIV negative, HCV RNA level <6 million IU/mL, and no cirrhosis

### **Treatment for HCV Genotype 1a – Alternative**

***Ombitasvir-Paritaprevir-Ritonavira and Dasabuvir (Viekira Pak) + Ribavirin*** x 12 weeks

***Simeprevir (Olysio) + Sofosbuvir (Sovaldi)*** x 12 weeks

***Daclatasvir (Daklinza) + Sofosbuvir (Sovaldi)*** x 12 weeks

***Elbasvir-Grazoprevir (Zepatier) + Ribavirin*** x 16 weeks

### **References**

-<https://www.hepatitisc.uw.edu>

-Liverpool HEP iChart app

-HepCalc app