

HCV Drugs Study Cheat Sheet

Hepatitis C Virus Drug Mechanisms	
Drug Ending	Drug Target
-pre ^u vir	NS3/4A protease inhibitor
-asvir	NS5A inhibitor
-bu ^u vir	NS5B polymerase inhibitor

- Check Prior To Starting Treatment**
- HCV genotype
 - HCV viral load
 - Cirrhosis status
 - Treatment status (naïve vs experienced)
 - HIV infection status
 - HBV infection status
 - Resistance testing (for some)

DIRECT ACTING ANTIVIRALS

Year Approved	Generic	Brand	Mechanisms			FDA Approvals By Genotype							
			NS3/4A	NS5A	NS5B	1a	1b	2	3	4	5	6	
2011	Boceprevir	Victrelis	Discontinued										
2011	Telaprevir	Incivek	Discontinued										
2013	Simeprevir	Olysio	✓			✓	✓						
2013	Sofosbuvir	Sovaldi			✓	✓	✓	✓	✓	✓			
2014	Ledipasvir/ sofosbuvir	Harvoni		✓	✓	✓	✓				✓	✓	✓
2014	Ombitasvir/ paritaprevir/ ritonavir/ dasabuvir	Viekira PAK	✓	✓	✓	✓	✓						
2015	Ombitasvir/ paritaprevir/ ritonavir	Technivie	✓	✓							✓		
2015	Daclatasvir	Daklinza		✓		✓	✓		✓				
2016	Elbasvir/ garzoprevir	Zepatier	✓	✓		✓	✓				✓		
2016	Sofosbuvir/ velpatasvir	Epclusa		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2017	Sofosbuvir/ velpatasvir/ voxilaprevir	Vosevi	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2017	Glecaprevir/ pibrentasvir	Mavyret	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓

- FDA WARNINGS**
1. Serious bradycardia can occur when amiodarone is used concomitantly with sofosbuvir-containing DAAs.
 2. Risk of hepatitis B reactivation in some patients Treated with DAAs.

Contraindicated or Not Recommended with Child-Pugh class B or C

Olysio, Viekira Pak, Technivie, Zepatier, Vosevi, Mavyret

- Gt1a is the most common HCV genotype in USA
- NS5A and NS3 RASs frequently seen with failure of NS5A or NS3 inhibitor-containing regimens
- With the availability of DAAs, there is little role for interferon in the management of HCV
- At times ribavirin is added to DAAs. Usually this is for treatment experienced and/or cirrhotic patients. It is important to beware anemia and fatigue with ribavirin. CBC monitoring (hemoglobin) is likely indicated.
- Almost all the DAAs have the potential side effect of headache and fatigue
- Beware drug-drug interactions with sofosbuvir/ ledipasvir and PPIs or other acid-suppressing agents
- It is not likely that a single DAA alone would be indicated for treatment of HCV
- Monitor HCV PCR (viral load) on therapy, with goal of reaching non-detectable. Continue therapy for full course even if reach goal on therapy. Repeat HCV PCR 12 weeks after treatment for SVR-12 assessment.
- Use [this](#) guideline from AASLD to answer specific questions and get the most current recommendations
- [Here](#) is a link to a free FIB-4 calculator

Abbreviations: AASLD = American Association for the Study of Liver Diseases, DAA = direct acting antiviral, PPI = proton pump inhibitor, RAS = resistance-associated substitutions, SVR = sustained virologic response