Treatment Options For HIV and Hepatitis C Coinfection

The goal of hepatitis C treatment is to cure the virus, which can be done by using a combination of drugs. Having HIV does not affect a person's chances of becoming cured. The length of treatment, which ranges from 8 to 24 weeks, depends on the person's HCV genotype (genetic structure of the virus), whether or not they have been treated before, if they have liver cirrhosis, and the level of virus in the body (known as viral load).

Successful hepatitis C treatment is defined as an undetectable HCV viral load 12 weeks after completing treatment. This is called a sustained virologic response, or SVR. It is also abbreviated as "SVR12," based on the weeks that have passed since treatment. People who achieve an SVR12 are generally considered cured.

A cure typically stops the advancement of liver scarring (called fibrosis), and may even send it in reverse to an extent. Ridding yourself of the virus also reduces, but does not necessarily eliminate, the raised risk of future health complications resulting from hep C, including cirrhosis, liver cancer, liver failure and death. The risks of such outcomes are higher if they already have severe liver scarring or cirrhosis, despite being cured of hepatitis C.

Research has suggested that people who are living with both HIV and hep C (this is called being coinfected) tend to experience faster progression of hepatitis C-related complications than those who only have hep C. The American Association for the Study of Liver Diseases (AASLD) says that people with hep C who are coinfected with HIV should be prioritized for HCV treatment.

There are a number of highly effective treatments currently approved by the U.S. Food and Drug Administration (FDA) to treat hep C. Many others are being studied in clinical trials or are awaiting FDA approval. For details on these medications, click here. To check out the AASLD-recommended regimens for those who are coinfected with HIV, click here. (The treatment recommendations are based on your hep C genotype. If you don't know your virus genotype, that's a good thing to ask your doctor.)

Drug-drug interactions

Some of the hepatitis C drugs have been shown to interact negatively with HIV antiretrovirals. This is called a drug-drug interaction. So it's important for you, your physician and your pharmacist to consider what HIV regimen you are taking, to make sure it is safe with the hep C medications you

are going to take, and to make any necessary adjustments. Luckily, with the hep C therapies available today, the opportunities for safe and effective treatment when someone is being treated for HIV are quite broad.

Identified drug-drug interactions between HIV antiretrovirals and the various hep C drugs, as described in the various medications' published prescribing information, include:

Daklinza (daclatasvir):

- Daklinza requires dose adjustment when used with ritonavir-boosted Reyataz (a decrease to 30 mg daily) and efavirenz (found in Sustiva and Atripla) or Intelence (etravirine) (an increase to 90 mg daily).

Epclusa (sofosbuvir/velpatasvir):

- Epclusa can be used with most antiretrovirals, but not efavirenz, etravirine, nevirapine, or ritonavir-boosted tipranavir.
- Because the velpatasvir in Epclusa increases tenofovir levels, when given as tenofovir disoproxil fumarate (TDF; found in Viread, Truvada, Atripla, Complera, and Stribild), using Harvoni in combination with any of these HIV medications should be avoided by those with reduced kidney function (determined by laboratory tests measuring creatinine clearance rate).
- Tenofovir alafenamide (TAF; found in Descovy, Odefsey, and Genvoya) may be an alternative to TDF during Epclusa treatment for patients who take cobicistat or ritonavir as part of their antiretroviral therapy.

Harvoni (sofosbuvir/ledipasvir):

- Harvoni can be used with most antiretrovirals, but should not be used with ritonavir-boosted tipranavir.
- Because the ledipasvir in Harvoni increases tenofovir levels, when given as tenofovir disoproxil fumarate (TDF; found in Viread, Truvada, Atripla, Complera, and Stribild), using Harvoni in combination with any of these HIV medications should be avoided by those with reduced kidney function (determined by laboratory tests measuring creatinine clearance rate).
- Because this effect may be more likely to occur when TDF is used with HIV antiretrovirals

boosted with either ritonavir or cobicistat, Harvoni should be avoided when these HIV drugs are being used, unless the antiretroviral regimen cannot be changed and the urgency of treatment is high. Tenofovir alafenamide (TAF; found in Descovy, Odefsey, and Genvoya) may be an alternative to TDF during Harvoni treatment for patients who take cobicistat or ritonavir as part of their antiretroviral therapy.

Mavyret (glecaprevir/pibrentasvir):

- Mavyret should not be taken with atazanavir (found in Reyataz and Evotaz), darunavir (found in Prezista, Prezcobix and the investigational combination tablet Symtuz), lopinvair (found in Kaletra) or ritonavir (found in Kaletra and often used as a "boosting agent" to raise the drug levels of other HIV medications). These drugs may raise the body's levels of the medications in Mavyret.
- Mavyret should not be taken with efavirenz (found in Sustiva and Atripla) because it may lower the body's level of the two drugs in Mavyret and thus reduce the HCV treatment's effectiveness

Ribavirin:

- Combining with didanosine, stavudine, or zidovudine is not recommended.

Sovaldi (sofosbuvir):

- Aptivus (ritonavir-boosted tipranavir) should not be used with Sovaldi.

Vosevi (sofosbuvir/velpatasvir/voxilaprevir):

- Vosevi should not be combined with atazanavir (found in Reyataz and Evotaz) or lopinavir (found in Kaletra). These drugs may raise the body's level of voxilaprevir.
- Vosevi should not be combined with Norvir (ritonavir)-boosted Aptivus (tipranavir) as the drug may lower the body's level of the sofosbuvir and velpatasvir components of Vosevi.
- Vosevi should not be combined with efavirenz (found in Sustiva and Atripla) as the drug may lower the telaprevir and voxilaprevir components of Vosevi.
- Vosevi may raise the body's level of tenofovir disoproxil fumarate (found in Viread, Atripla, Complera, Stribild and Truvada). Physicians should monitor those receiving Vosevi and Viread

for indications of adverse reactions to the latter drug.

Zepatier (grazoprevir/elbasvir):

- Zepatier should be used with antiretroviral drugs with which it does not have substantial drug-drug interactions. These are: abacavir, emtricitabine, enfuvirtide, lamivudine, raltegravir, dolutegravir, rilpivirine, and tenofovir.
- Zepatier should not be used with cobicistat, efavirenz, etravirine, nevirapine, or any HIV protease inhibitor.

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