

**TRAINING MANUAL FOR
TREATMENT ADVOCATES**

**HEPATITIS C VIRUS
& COINFECTION
WITH HIV**

SECTION 9: TREATMENT FOR PEOPLE WHO USE DRUGS OR ALCOHOL USERS AND TREATMENT ISSUES FOR HIV/HCV COINFECTED PEOPLE

- Although many doctors think that it is not possible to treat HCV in people who are using drugs, several studies have shown otherwise
 - Older studies found that people who use drugs could be successfully treated for HCV, when their side effects were treated and when counseling from peers and mental health staff, methadone or buprenorphine, clean injection equipment, and addiction treatment were available on request.
 - These studies were conducted during PEG-IFN treatment trials, and high cure rates among people who use drugs have been seen with DAAs using different levels of support.
- **Access to clean injection equipment and safe drug consumption spaces are also critical to help prevent reinfection.**

Alcohol Use

- Although older studies reported that both lifetime and recent alcohol use among people undergoing HCV treatment reduced the chance of being cured, many of them were performed in the era of non-pegylated interferon, which is significantly less effective than DAAs.
- The studies didn't measure adherence.
- People who drink alcohol, especially heavy drinkers, are more likely to develop liver damage.
- Quitting or cutting down on drinking can be very difficult, but drinking less—or not at all—can help a person with HCV to prevent liver damage, particularly in places where treatment is not available. **Getting cured is the most important thing!**

Marijuana

- Marijuana may have both positive and negative health effects for people with HCV.
- Daily marijuana use may or may not affect fat buildup in liver cells (*steatosis*), which can worsen fibrosis.
- Modest marijuana use may be beneficial for some people undergoing HCV treatment.
 - In one study, it helped to reduce side effects, which allowed more people to complete treatment in the pegylated interferon era—and be cured of the virus—compared with those who didn't.
 - Researchers have also found that some people with HCV who have used marijuana daily for many years have more serious liver damage than those who don't use the drug or use it occasionally, although other studies have not confirmed this finding.

HCV and HIV Treatment Issues for HIV/HCV-Coinfected People

- HCV progresses more quickly in people who are also HIV-positive, so access to HCV treatment is especially important for people with coinfection.
- HIV treatment is now recommended for all people living with HIV.
- Many people who are coinfecting receive HCV treatment while continuing their HIV therapy.
- Advisable that people coinfecting with both viruses begin treatment for HIV, and get an **undetectable HIV viral load before beginning HCV treatment.**
- **People living with HIV and HCV are just as likely to be cured by DAAs as people living with HCV alone.**
- SVR rates of 95% and higher have been reported by researchers who have conducted clinical trials of DAA regimens in people coinfecting with both viruses—even for those who were not successfully cured by previous regimens or those who have advanced fibrosis.

Antiretrovirals (ARVs) and Liver Toxicity

- ARVs are broken down by the liver
- Prescription drug-induced liver toxicity is more common in people coinfecting with HIV and HCV
- Liver toxicity is more likely for coinfecting people with serious liver scarring.
- Having liver enzyme levels checked regularly is very important for coinfecting people who are taking ARVs, because these can pick up liver problems caused by HIV treatments or other causes.
- HCV treatment can lower the risk of liver toxicity from ARVs by slowing or stopping liver scarring.

HIV Treatment Selection and Prescription Drug Interactions

- Some HIV medications can interact with HCV medications, which can decrease HIV or HCV treatment effectiveness or increase the risk of serious side effects.
- Some HIV and HCV medications should not be used at the same time, or dose changes should be made.
- Important to inform your doctor about the medications you are taking.

Select HIV and HCV Prescription Drug Interactions (1/4)

Selected HIV Treatments	Dolutasvir	Sofosbuvir	Ledipasvir/ Sofosbuvir	Velpatasvir/ Sofosbuvir	Sofosbuvir/ Velpatasvir/ Voxilaprevir	Glecaprevir/ Pibrentasvir	Elbasvir/ Grazoprevir	Ombitasvir/ Paritaprevir/ Ritonavir/ Dasabuvir	Simeprevir
	Daklinza	Sovaldi	Harvoni	Epclusa	Vosevi	Mavyret	Zepatier	Viekira Pak/XR	Olysio
Nucleoside Reverse Transcriptase Inhibitors									
Abacavir	✓	✓	✓	✓	✓	✓	✓	✓	✓
Emtricitabine	✓	✓	✓	✓	✓	✓	✓	✓	✓
Lamivudine	✓	✓	✓	✓	✓	✓	✓	✓	✓
Tenofovir alafenamide fumarate (TAF)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Tenofovir disoproxil fumarate (TDF)	✓	✓	Monitor for kidney or bone side effects.	Monitor for kidney or bone side effects	Monitor for kidney or bone side effects	✓	✓	✓	✓
HIV Protease Inhibitors									
Atazanavir (unboosted)	✓	✓	✓	✓	✗	✗	✗	✓ Reduce atazanavir dose to 300 mg & take in the morning at same time as Viekira Pak/XR	✗

✓ = Can be used together

✗ = Not recommended for use together

? = Not enough information available to recommend use together

Select HIV and HCV Prescription Drug Interactions (2/4)

Selected HIV Treatments	Daclatasvir	Sofosbuvir	Ledipasvir/ Sofosbuvir	Velpatasvir/ Sofosbuvir	Sofosbuvir/ Velpatasvir/ Voxilaprevir	Glecaprevir/ Pibrentasvir	Elbasvir/ Grazoprevir	Ombitasvir/ Paritaprevir/ Ritonavir/ Dasabuvir	Simeprevir
	Daklinza	Sovaldi	Harvoni	Eplusa	Vosevi	Mavyret	Zepatier	Viekira Pak/XR	Olysio
HIV Protease Inhibitors									
Atazanavir/ Ritonavir or Atazanavir/ Cobicistat	✓ Lower daclatasvir dose to 30 mg/day	✓	✓ If used with TDF, monitor for kidney or bone side effects	✓ If used with TDF, monitor for kidney or bone side effects	✗	✗	✗	✓ Discontinue ritonavir (or the combination tablet Evotaz) and switch to unboosted atazanavir (300 mg), taken in the morning at the same time as Viekira Pak/XR.	✗
Darunavir/ Ritonavir or Darunavir/ Cobicistat	✓	✓	If used with TDF, monitor for kidney or bone side effects	If used with TDF, monitor for kidney or bone side effects	✓ If used with TDF, monitor for kidney or bone side effects; also monitor for liver toxicity	✗	✗	✗	✗
Lopinavir/ Ritonavir	✓	✓			✗	✗	✗	✗	✗
Tipranavir/ Ritonavir	?	✗	✗	✗	✗	✗	✗	✗	✗

✓ = Can be used together

✗ = Not recommended for use together

? = Not enough information available to recommend use together

Select HIV and HCV Prescription Drug Interactions (3/4)

Selected HIV Treatments	Dacatasvir	Sofosbuvir	Ledipasvir/ Sofosbuvir	Velpatasvir/ Sofosbuvir	Sofosbuvir/ Velpatasvir/ Voxilaprevir	Glecaprevir/ Pibrentasvir	Elbasvir/ Grazoprevir	Ombitasvir/ Paritaprevir/ Ritonavir/ Dasabuvir	Simeprevir
	Daklinza	Sovaldi	Harvoni	Epclusa	Vosevi	Mavyret	Zepatier	Viekira Pak/XR	Olysio
Non-Nucleoside Reverse Transcriptase Inhibitors									
Efavirenz	✓ Increase daclatasvir dose to 90 mg/day	✓		✗	✗	✗	✗	✗	✗
Etravirine	✓ Increase daclatasvir dose DCV dose to 90 mg/day	✓	✓ If used with TDF, monitor for kidney or bone side effects	✗	✗	✗	✗	✗	✗
Nevirapine	✓ Increase daclatasvir dose DCV dose to 90 mg/day	✓		✗	✗	?	✗	✗	✗
Rilpivirine	✓	✓		✓	✓	✓	✓	✗	✓

✓ = Can be used together

✗ = Not recommended for use together

? = Not enough information available to recommend use together

Select HIV and HCV Prescription Drug Interactions (4/4)

Selected HIV Treatments	Daclatasvir	Sofosbuvir	Ledipasvir/ Sofosbuvir	Velpatasvir/ Sofosbuvir	Sofosbuvir/ Velpatasvir/ Voxilaprevir	Glecaprevir/ Pibrentasvir	Elbasvir/ Grazoprevir	Ombitasvir/ Paritaprevir/ Dasabuvir	Simeprevir
	Daklinza	Sovaldi	Harvoni	Epclusa	Vosevi	Mavyret	Zepatier	Viekira Pak/XR	Olysio
Integrase Strand Transfer Inhibitors									
Dolutegravir	✓	✓	✓ If used with TDF, monitor for kidney or bone side effects	✓	✓	✓	✓	✓	✓
Elvitegravir/ Cobicistat/TDF/ Emtricitabine	✓ Decrease daclatasvir dose to 30 mg/day	✓	✗	✓ If used with TDF, monitor for kidney or bone side effects	✓ If used with TDF, monitor for kidney or bone side effects; also monitor for liver toxicity	✓ If used with TDF, monitor for kidney or bone side effects; also monitor for liver toxicity	✗	✗	✗
Elvitegravir/ Cobicistat/TAF/ Emtricitabine	✓ Decrease daclatasvir dose to 30 mg/day	✓	✓	✓	✓ Monitor for liver toxicity	✓ Monitor for liver toxicity	✗	✗	✗
Raltegravir	✓	✓	✓	✓	✓	✓	✓	✓	✓
CCR5 Antagonist									
Maraviroc	✓	✓	✓	✓	✓	✓	?	✗	✓

✓ = Can be used together

✗ = Not recommended for use together

? = Not enough information available to recommend use together

ADVOCACY EXERCISE

Discussion Questions:

1. How can we get better, less toxic ARV regimens that work with HCV treatment?
2. Is it difficult for coinfecting people to change ARV regimens where you are?

Action Steps:

1. How can we increase access to HCV care and treatment for people living with HIV and people who use drugs?
2. How can we address other barriers to HIV and HCV treatment access, including discrimination in health care settings, lack of comprehensive harm reduction services, and the criminalization of people who use drugs?
3. What additional support, programs, or resources are needed to overcome the stigmatization and discrimination towards people who use drugs to ensure they can access HCV treatment?
4. What are some harm reduction approaches aimed to reduce alcohol or drug use? What are some ways to protect liver health for someone with a history of drug and alcohol use?