

BASED ON TIP 53

Addressing Viral Hepatitis in People With Substance Use Disorders

KAP KEYS FOR CLINICIANS



Introduction

KAP Keys were developed to accompany the Treatment Improvement Protocol (TIP) Series published by the Substance Abuse and Mental Health Services Administration (SAMHSA). These KAP Keys are based entirely on TIP 53 and are designed to meet the needs of the busy clinician for concise, easily accessed “how-to” information.

For more information on the topics in these KAP Keys, see

TIP 53: Addressing Viral Hepatitis in People With Substance Use Disorders

Other TIPs relevant to these KAP Keys:

TIP 49: Incorporating Alcohol Pharmacotherapies Into Medical Practice

TIP 48: Managing Depressive Symptoms in Substance Abuse Clients During Early Recovery

TIP 37: Substance Abuse Treatment for Persons With HIV/AIDS

TIP 35: Enhancing Motivation for Change in Substance Abuse Treatment

TIP 24: A Guide to Substance Abuse Services for Primary Care Clinicians

Overview of Viral Hepatitis

Viral hepatitis is inflammation of the liver caused by a virus. Over time, inflammation can lead to scarring, which in turn can lead to cirrhosis and eventually to liver failure.

The most common types of hepatitis in the United States are hepatitis A, B, and C.

- Hepatitis A is the *disease* caused by the hepatitis A *virus* (HAV).
- Hepatitis B is the *disease* caused by the hepatitis B *virus* (HBV).
- Hepatitis C is the *disease* caused by the hepatitis C *virus* (HCV).

Hepatitis can be:

- *Acute*: Infection resolves within 6 months.
- *Chronic*: Infection lasts more than 6 months.

Overview of the Most Common Types of Viral Hepatitis

Category	Hepatitis A	Hepatitis B	Hepatitis C
Transmission route	Fecal–oral route	Blood and body fluids	Blood
Percentage of adults infected who develop chronic infection	0%	6%–10%	75%–85%
Immunity after clearing infection	Yes	Yes	No
Vaccine available	Yes	Yes	No

KAP KEYS BASED ON TIP 53

Addressing Viral Hepatitis in People
With Substance Use Disorders

Screening for Viral Hepatitis

Hepatitis A Screening

Test	Positive Result
Antibody test	Currently infected, has been infected, or has been vaccinated; the person is immune to HAV reinfection.

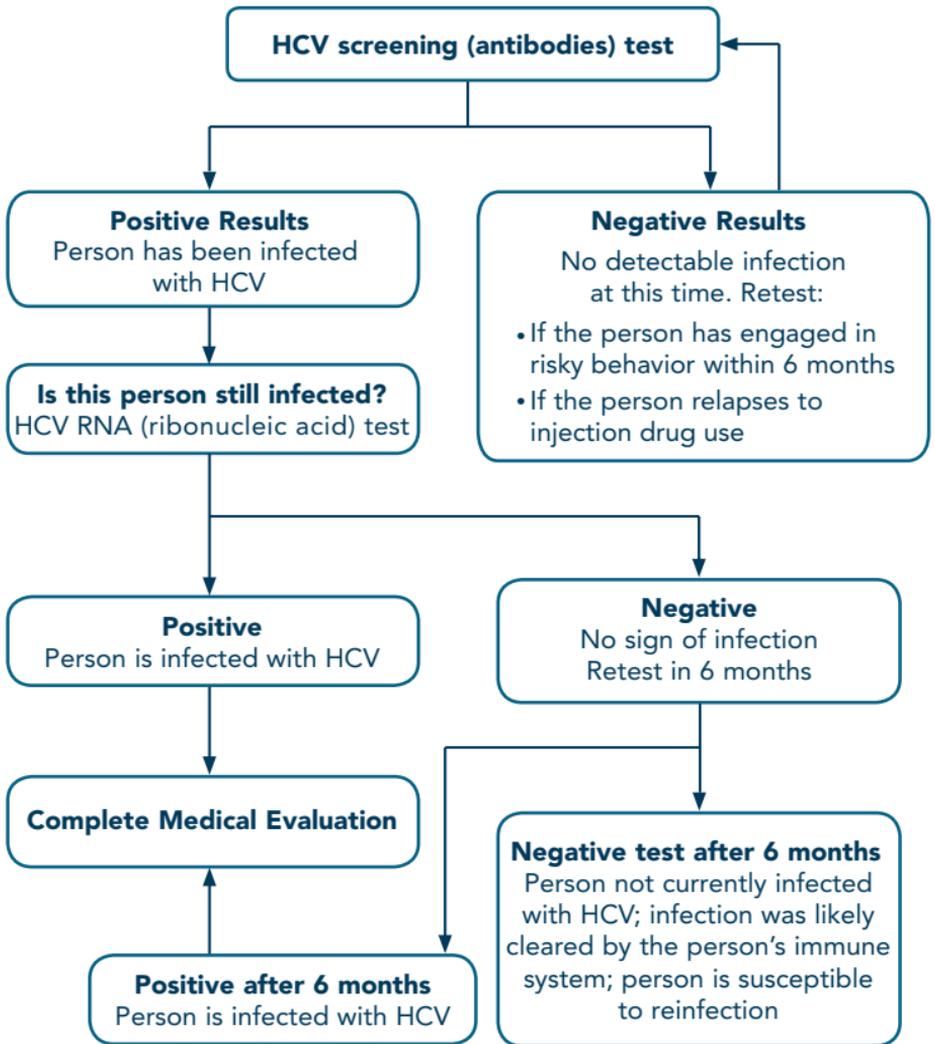
Hepatitis B Screening

Test	Positive Result
Surface antigen test	Currently infected and can pass the infection to others. If, after 6 months, the test is again positive, HBV infection is considered chronic.
Core antibody test	Has been infected with HBV. However, the test does not specify whether the person has cleared the virus, still has the infection, or is immune to reinfection.
Surface antibody test	Has been infected and cleared the virus or has been vaccinated against HBV. Has lifetime immunity from hepatitis B.

Hepatitis C Screening

Test	Positive Result
Antibody test	Is a chronic carrier of HCV, has been infected but has cleared the infection, or is recently (acutely) infected. A person who obtains a positive result on an HCV antibody screening test should receive additional tests to get more information.

The HCV Screening Process



KAP KEYS BASED ON TIP 53

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With Substance Use Disorders

Evaluation of Chronic Hepatitis

Test	Purpose
Liver panel (liver function tests)	A series of blood tests to measure the extent of liver injury.
Viral load tests	Indicate the quantity of virus present in the blood stream; the best and most specific tests to indicate the presence of viral hepatitis B or C.
Genotype test	Identifies the type or strain of the hepatitis virus.
Liver biopsy	<p>Involves removing a small number of liver cells; the best way to determine the health of the liver and any damage resulting from scarring, cirrhosis, or other causes.</p> <p>Helps determine the appropriate course of treatment.</p>

Treatment of Hepatitis

Treatment of Hepatitis A

Because hepatitis A is always acute, treatment is generally limited to addressing symptoms, monitoring liver health, and letting the virus run its course.

Treatment of Hepatitis B

Medication	Administration
Short-acting interferon	Injected several times a week for 6 months–1 year, sometimes longer
Long-acting (pegylated) interferon	Injected once per week for 6 months–1 year
Lamivudine, Adefovir dipivoxil, Entecavir, Telbivudine, Tenofovir	Tablet taken once per day for 1 year or longer

Treatment of Hepatitis C

Medication	Administration
Long-acting (pegylated) interferon	Injected weekly for 6 months–1 year
Ribavirin	Tablet or capsule taken orally, usually twice per day for 6 months or longer
Boceprevir	Capsule taken orally, three times per day (with food). Length of treatment depends on individual. Must be taken in combination with interferon and ribavirin.
Telaprevir	Tablet taken orally, three times per day (with food), usually for 12 weeks but can be up to 36 weeks. Must be taken in combination with interferon and ribavirin.

With almost all of these medications, the disease may worsen if the medication is stopped prematurely.

Managing Side Effects of Hepatitis C Antiviral Treatment

Bad taste in mouth

- Try sugar-free lemon drops or lemon wedges.
- Eat a small amount of yogurt ½ hour before meals.
- Eat dark chocolate or drink lemonade or cranberry juice.
- Eat food cold or at room temperature.
- Brush teeth frequently.
- Use plastic utensils if experiencing metallic taste.

Cough

- Increase fluid intake (noncaffeinated).
- Use a humidifier.
- Try sugar-free hard candy or cough drops.

Diarrhea

- Eat more low-fiber foods like bananas, white rice, applesauce, and white toast (the BRAT diet).
- Avoid spicy or acidic foods (like citrus) and dairy products for several days after diarrhea resolves.
- Drink plenty of fluids (six to eight 8-oz. glasses/day).

Dry mouth or mouth ulcers

- Brush teeth frequently, especially after eating.
- Avoid mouthwash containing alcohol.
- Drink plenty of water or use ice chips or sugar-free lemon drops.
- Ask medical care provider about medications for mouth sores/ulcers.

Dry skin/rashes

- Avoid long, hot showers or baths.
- Use moisturizing soaps and lotions, sunscreen, and mild unscented laundry detergents.
- Avoid fabric softeners.
- Rub or press on the itchy areas rather than scratch them.
- Use petroleum jelly on affected areas and ask medical provider about other solutions.

Fatigue

- Try low-impact exercise such as walking or low-impact aerobics, if approved by medical care provider.

Managing Side Effects of Hepatitis C Antiviral Treatment (continued)

- Drink plenty of fluids and get plenty of rest.
- Lessen work schedule if possible.
- Eat well-balanced meals every day.

Fever/Chills

- Notify medical care provider if the temperature is above 101 °F for more than 24 hours.
- Inject interferon at bedtime.
- Take acetaminophen 30–60 minutes before weekly interferon injection and repeat 4–6 hours later, if approved by medical care provider.
- Use ibuprofen or naproxen, if approved by medical care provider.
- Try a cool sponge bath, ice pack, or cold pack.
- Use extra blankets and clothes.

Hair thinning or hair loss

- Avoid harsh hair products such as dyes, perms, gels, sprays, and mousses.
- Use mild shampoo such as baby shampoo.
- Avoid braiding hair.
- Use a wide-tooth comb or soft brush.

Headaches

- Drink plenty of fluids and get plenty of rest.
- Try taking acetaminophen or ibuprofen, if approved by medical care provider.
- Keep lights dim, wear sunglasses, or stay in darkened rooms.

Injection site reactions

- Warm the vial by gently rolling it in between two hands for a minute before injecting.
- Rotate injection sites—thigh, upper arm, and abdomen.
- Do not inject into an area that is irritated, bruised, or red.
- Do not rub injection site.
- Apply a cold pack.
- Apply hydrocortisone cream or other medications, if approved by medical care provider.

Managing Side Effects of Hepatitis C Antiviral Treatment (continued)

Insomnia

- Go to bed and get up at the same times every day.
- Do not watch TV or read in bed.
- Limit daytime naps.
- Take ribavirin in the late afternoon instead of before bedtime, if it causes the jitters.
- Limit fluid intake for 2 hours before bedtime to avoid getting up to go to the bathroom.
- Avoid caffeinated products, especially in the afternoon and at night.
- Avoid heavy meals close to bedtime.
- Take warm baths, read, listen to music, try massage.
- Drink a glass of warm milk (contains tryptophan, a natural sleep agent).
- Take diphenhydramine (Benadryl) or other medications recommended by medical care provider.

Muscle and body aches

- Try low-impact exercise such as walking or low-impact aerobics, if approved by medical care provider.
- Drink plenty of fluids, at least six to eight noncaffeinated 8-oz glasses/day.
- Apply warm, moist heat or massage affected areas.

Nausea and vomiting

- Take ribavirin with food.
- Eat small meals.
- Avoid foods or smells that trigger nausea; eat cold foods and avoid cooking smells.
- Eat healthful foods; avoid greasy, spicy, acidic, or sweet foods.
- Try ginger tea, ginger ale, or gingersnaps.
- Eat crackers or dry white toast for morning nausea.

Poor appetite

- Eat small, more frequent (4–6) meals throughout the day.
- Try protein drinks and snacks (cheese, peanut butter, eggs).
- Eat whatever appeals to you even if not hungry; eat a variety of foods.
- Walk before a meal.

Potential Interactions Among Medications Used To Treat Chronic Hepatitis and Behavioral Health Conditions

Prescription Medication	Indication	Potential Interaction With Hepatitis Medications
Alprazolam	Anxiety	<p>The use of telaprevir with alprazolam increases exposure to alprazolam. Clinical monitoring for dose adjustment is recommended.</p> <p>The use of boceprevir could result in increased sedation or respiratory depression when used with alprazolam. A lower dose of alprazolam should be considered.</p>
Buprenorphine	Opioid dependence	The use of boceprevir could result in an increase or decrease in buprenorphine levels. However, the combination of buprenorphine and boceprevir has not been studied. Clinical monitoring for dose adjustment is recommended.
Bupropion	Depression; nicotine dependence	The use of bupropion is associated with an increased risk of seizures. Use of interferon and bupropion together might increase seizure risk as well.
Clozapine	Schizophrenia; psychosis	Clozapine might cause marrow disorders, neuroleptic malignant syndrome, and increased seizure risk. When taken with interferon, the risks of these might increase.

KAP KEYS BASED ON TIP 53

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Potential Interactions Among Medications Used To Treat Chronic Hepatitis and Behavioral Health Conditions (continued)

Prescription Medication	Indication	Potential Interaction With Hepatitis Medications
Desipramine	Depression	The use of telaprevir or boceprevir could result in an increase in desipramine concentration, which might lead to adverse events (e.g., nausea, dizziness). The combination of telaprevir or boceprevir and desipramine should be used with caution and a lower dose of desipramine should be considered.
Disulfiram	Alcohol use disorders	Disulfiram might cause or worsen hepatitis. When taken with interferon alpha 2a, there is increased risk of peripheral neuropathy.
Escitalopram	Depression	The use of telaprevir can result in decreased escitalopram concentration. Clinical monitoring for dose adjustment is recommended.
Methadone	Opioid dependence	<p>The use of telaprevir is associated with decreased methadone concentration. Clinical monitoring for dose adjustment is recommended.</p> <p>The use of boceprevir could result in an increase or decrease in methadone levels. However, the combination of methadone and boceprevir has not been studied. Clinical monitoring for dose adjustment is recommended.</p>

Sources:

Physicians' Desk Reference 2010 (64th ed.). 2009. Montvale, NJ: PDR Network, LLC.

Food and Drug Administration. (2011). *Highlights of prescribing information for Incivek (telaprevir)*. Retrieved August 14, 2013, from http://www.accessdata.fda.gov/drugsatfda_docs/label/2011/201917lbl.pdf

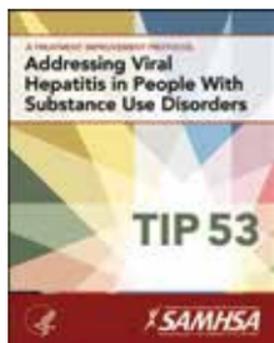
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Potential Interactions Among Medications Used To Treat Chronic Hepatitis and Behavioral Health Conditions (continued)

Prescription Medication	Indication	Potential Interaction With Hepatitis Medications
Midazolam	Anxiety	<p>Telaprevir is contraindicated with oral midazolam. The interaction could result in increased sedation or respiratory depression.</p> <p>The use of boceprevir could result in increased sedation or respiratory depression when used with intravenous midazolam. A lower dose of intravenous midazolam should be considered.</p>
Naltrexone	Opioid and alcohol use disorders	When taken with interferon alpha 2a, naltrexone might exacerbate liver damage.
Trazodone	Depression	The use of telaprevir or boceprevir can result in an increase in trazodone concentration, which might lead to adverse events (e.g., nausea, dizziness). The combination of telaprevir or boceprevir and trazodone should be used with caution and a lower dose of trazodone should be considered.
Triazolam	Insomnia	Telaprevir and boceprevir are contraindicated with triazolam. The interaction could result in increased sedation or respiratory depression.
Zolpidem	Insomnia	The use of telaprevir can result in decreased zolpidem concentration. Clinical monitoring and dose adjustment of zolpidem are recommended to achieve the desired response.

Ordering Information



TIP 53

Addressing Viral Hepatitis in People With Substance Use Disorders

TIP 53-Related Products:

Quick Guide for Clinicians and Administrators
Based on TIP 53

Publications may be ordered or downloaded from SAMHSA's Publications Ordering Web page at <http://store.samhsa.gov>. Or, please call SAMHSA at 1-877-SAMHSA-7 (1-877-726-4727) (English and Español).

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