



Hepatitis C : Screening, Testing and Treatment

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Prescription for Gratitude



Disclosure

I have no actual or potential conflict of interest in relation to any product or service mentioned in this program or presentation.



Objectives

- Overview of Hepatitis C
- Discuss screening and testing
- State treatment guidelines and follow up
- Discuss UHC Hepatitis C Program
- Discuss engagement of our care team
- Questions



Hepatitis Awareness - May

National Hepatitis Testing Day - May 19

World Hepatitis Day - June 28

- [Hepatitis Awareness Month \(May\) | HHS.gov](https://www.hhs.gov)

Hepatitis Awareness Month (May)



May is designated as **Hepatitis Awareness Month** in the United States, providing 31 days to raise awareness of viral hepatitis in the United States. During May, agencies and offices across the federal government as well as state and local partners work to raise awareness of the importance of vaccination for hepatitis A and hepatitis B, testing for hepatitis B and hepatitis C, the availability of effective care and curative treatment, and the serious health consequences resulting from undiagnosed and untreated viral hepatitis.

The month-long observance includes [Hepatitis Testing Day](#) on May 19th. These observances are important opportunities to raise widespread awareness of viral hepatitis and its impact in the U.S. and expand our coordinated national efforts to improve the health of the estimated 862,000 people living with hepatitis B and 2.4 million people living with hepatitis C.

Get tested for hepatitis C. It could save your life.

CDC recommends all adults get tested for hepatitis C



Millions of Americans have hepatitis C

An estimated 2.4 million people are living with hepatitis C in the United States. Many people don't know they are infected.



Hepatitis C often has no symptoms

Most people with chronic hepatitis C will not have symptoms for 20 years or more. Even without symptoms, serious damage to your liver can occur.



Hepatitis C can lead to liver cancer

Hepatitis C can cause serious health problems. It is the #1 cause of liver transplants and a leading cause of liver cancer.



Hepatitis C can be cured

Treatments are available that can cure hepatitis C. Treatment can help prevent further liver damage, cirrhosis, and even liver cancer.

Getting tested is the only way to know if you have hepatitis C.
Talk to your doctor about getting tested. It could save your life.

Prevalence of Hepatitis C

- In 2013, viral hepatitis was a leading cause of death worldwide. More than 90% of this burden is due to the hepatitis B virus (HBV) and hepatitis C virus (HCV).¹
- The 2014 World Health Assembly asked the World Health Organization (WHO) to explore how to eliminate HCV. In response, the WHO set 2030 targets for diagnosis, treatment, incidence, and mortality that would achieve the goal of eliminating HCV as a global health burden. Below are more details about the mission—as well as how we all can help make this important mission a reality.
- Hepatitis is a public health crisis.
- The World Health Organization (WHO) has made it a priority to eliminate HCV and set 2030 targets for diagnosis, treatment, incidence, and mortality.



Hepatitis C in Texas

If you are at risk, get tested!

What is hepatitis C?

Hepatitis C is a blood-borne virus that predominantly infects the cells of the liver.

Up to 85% of all hepatitis C virus infections become chronic, meaning the virus is in the body for more than six months.



Chronic hepatitis C can cause:

- Cirrhosis of the liver
- Liver failure
- Liver cancer



People at highest risk of developing hepatitis C:



Adults born during 1945-1965 (baby boomers) account for 73% of all hepatitis C associated mortality. **3 out of 25 people in Texas identify as baby boomers.**



1 in 4 people living with HIV are infected with hepatitis C. An estimated **21,667** are coinfecting with HIV and hepatitis C in Texas.



People who inject and share drugs or other materials are more likely to have hepatitis C. Injection drug use is the source of infection for 60% of persons with hepatitis C.

Hepatitis C in Texas



More than **25%** of Texans are at risk



Over **584,196** people in Texas may have chronic hepatitis C



Mortality increased in Texas by 71% in men and 29% in women since 1990



New medications can cure hepatitis C in 2-3 months with few side effects. **The cure rate is 95%.**



To learn more about hepatitis C, visit www.dshs.texas.gov/hivstd/info/hcv/

Please contact us for references.

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Services

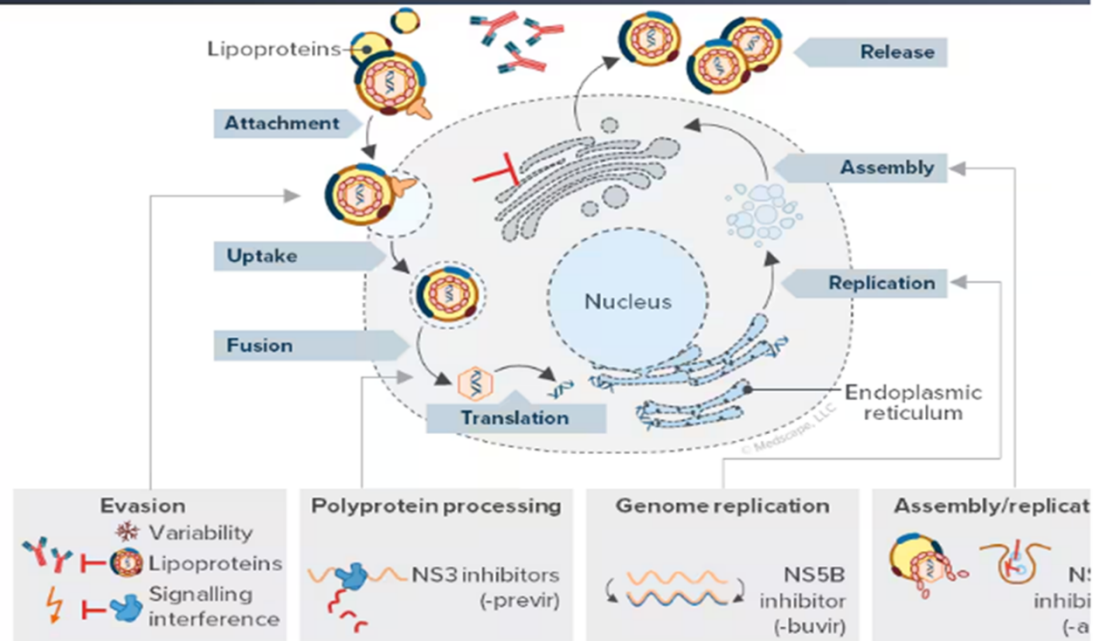
Texas Department of State
Health Services



What is Hepatitis C ?

HCV Pathogenesis and Disease Progression

- HCV is an **RNA virus**
- **Primarily targets liver cells**
- Transmitted through blood-to-blood contact
- In 70% of cases, it becomes a chronic infection
- If untreated, 20% of patients with HCV develop liver cirrhosis, with a fraction further progressing to hepatocellular carcinoma



Pietschmann T, et al. Trends Microbiol. 2019;27:379-380.

Symptoms

Acute Phase :

- Rarely causes symptoms but may include jaundice, fatigue, nausea, fever and muscle aches

Chronic Hepatitis C : Usually has no symptoms for many years.

- Symptoms appear only after virus damages the liver
- Bleeding easily.
- Bruising easily.
- Fatigue.
- Not wanting to eat.
- Yellowing of the skin, called jaundice. This might show up more in white people. Also, yellowing of the whites of the eyes in white, Black and brown people.
- Dark-colored urine.
- Itchy skin.
- Fluid buildup in the stomach area, called ascites.
- Swelling in the legs.
- Weight loss.
- Confusion, drowsiness and slurred speech, called hepatic encephalopathy.
- Spiderlike blood vessels on the skin, called spider angiomas.

What is Hepatitis C

- Six major HCV Genotypes with differing geographic distributions according to geographic origin and other factors.
- The virus is spread when blood or body fluid from an HCV-infected person enters another person's body. HCV is spread through sharing needles or "works" when shooting drugs, through exposure to needlesticks or sharps on the job, or sometimes from an infected mother to her baby during birth. It is possible to transmit HCV during sex, but it is not common.
- Although HCV is not commonly spread through sex, individuals having sex with multiple partners or with an infected steady partner may be at increased risk of HCV infection.



Patient Experience

Meet James:

- 30-year-old, black male, active drug addict for 10 years
- 2017 is when he decided to be tested and was diagnosed with Hepatitis C

“ it felt like part of me died and was going through emotional trauma and didn't know that it can be cured. When I found out I thought I had a stain on me that I was going to carry over forever and glad that I took medication(DAA) to treat Hepatitis C for 8 weeks and it went by very fast, and I didn't have to change my routine and had no side effects.”

“Now I enjoy quiet simple things and to let everyone know that there is a hope and cure.”



Risk Factors

People who
inject drugs

Tattoos/piercing

Needle sharing

Hemodialysis
patients

Co-infection
with HIV or
HBV

Individual born
1945 -1965



Question

What are some of the risk factors for Hepatitis C to recommend them to get screened and tested for Hepatitis C ?

- 1) Patients diagnosed with HIV
- 2) People who inject drugs
- 3) Needle sharing
- 4) Hemodialysis patients
- 5) All of the above



Coverage and Screening

Coverage

- Coverage for hepatitis C treatment is available for all Medicaid recipients.

Screening

- The following individuals should be screened for hepatitis C:
- Those who are 18 years and older (for one-time testing)
- Pregnant women
- Anyone who asks for the test, regardless of age or disclosure of risk



Testing

- Consider ordering a hepatitis C virus (HCV) antibody test with reflex to quantitative HCV RNA test (CPT® code 86803), which automatically tests for HCV RNA on the same sample if the HCV antibody test returns positive.
- UnitedHealthcare covers the test cost if the patient receives it through Quest Diagnostics or LabCorp and other participating labs.
- Repeat testing may be necessary for those with risk exposures and other conditions.



Question

Who should be screened and tested ?

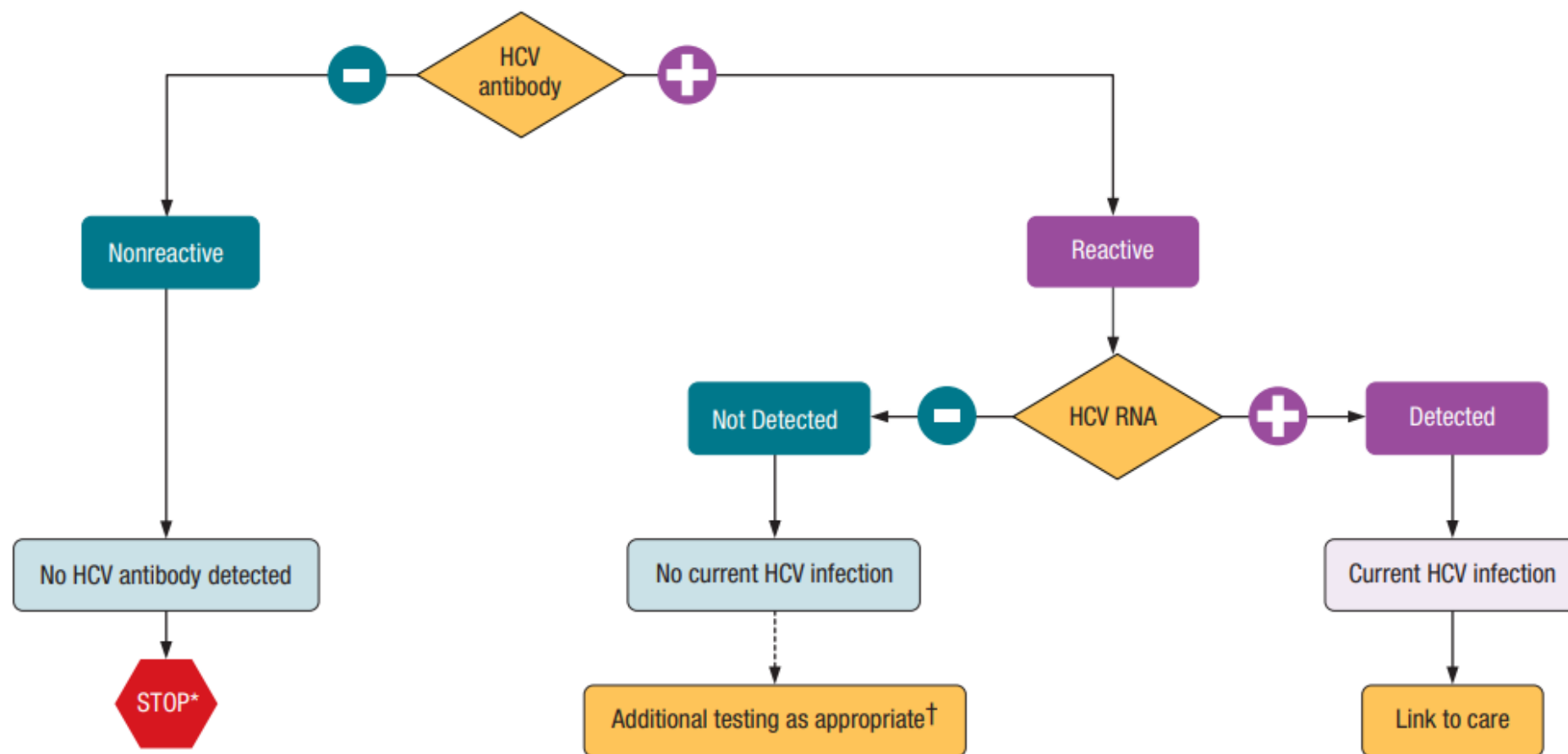
1. Those who are 18 years and older (for one-time testing)
2. Pregnant women
3. Anyone who asks for the test, regardless of age or disclosure of risk
4. All of the above



Recommended Testing Sequence for Identifying Current Hepatitis C Virus (HCV) Infection



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention



* For persons who might have been exposed to HCV within the past 6 months, testing for HCV RNA or follow-up testing for HCV antibody is recommended. For persons who are immunocompromised, testing for HCV RNA can be considered.

† To differentiate past, resolved HCV infection from biologic false positivity for HCV antibody, testing with another HCV antibody assay can be considered. Repeat HCV RNA testing if the person tested is suspected to have had HCV exposure within the past 6 months or has clinical evidence of HCV disease, or if there is concern regarding the handling or storage of the test specimen.

Source: CDC. Testing for HCV infection: An update of guidance for clinicians and laboratorians. MMWR 2013;62(18).

Chronic HCV Infection: Pretreatment Assessment Guide

Screening¹

One-time testing for HCV infection		All adults aged 18 years and older
Periodic repeat HCV testing and one-time HCV testing (individuals aged less than 18 years)		Persons with activities, exposures or conditions/ circumstances with an increased risk of HCV exposure
Prenatal HCV testing with each pregnancy		As part of routine prenatal care
Annual testing		All persons who inject drugs
		HIV-infected men who have unprotected sex with men and men who have sex with men taking PrEP

See AASLD and IDSA guidelines for full details.

Diagnosis¹

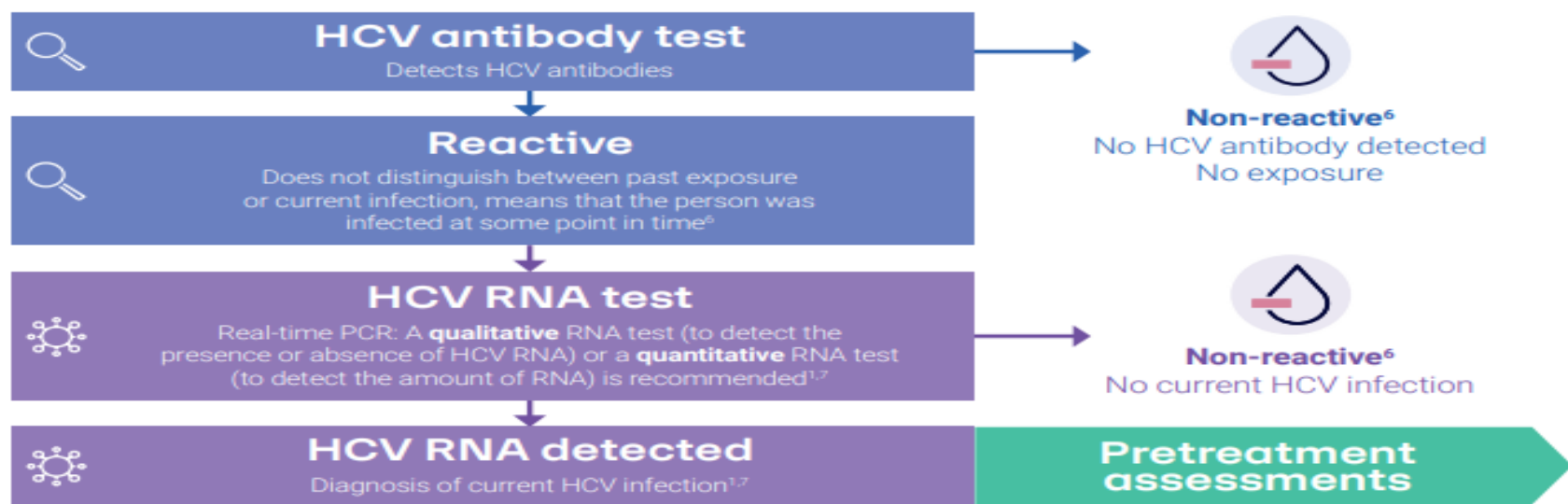
Reflex testing: Diagnosis can be facilitated by automatically testing for HCV RNA on the same sample if the HCV antibody test is positive

A quantitative HCV RNA test to determine viral load is recommended prior to initiation of antiviral treatment

ICD-10 diagnosis codes²

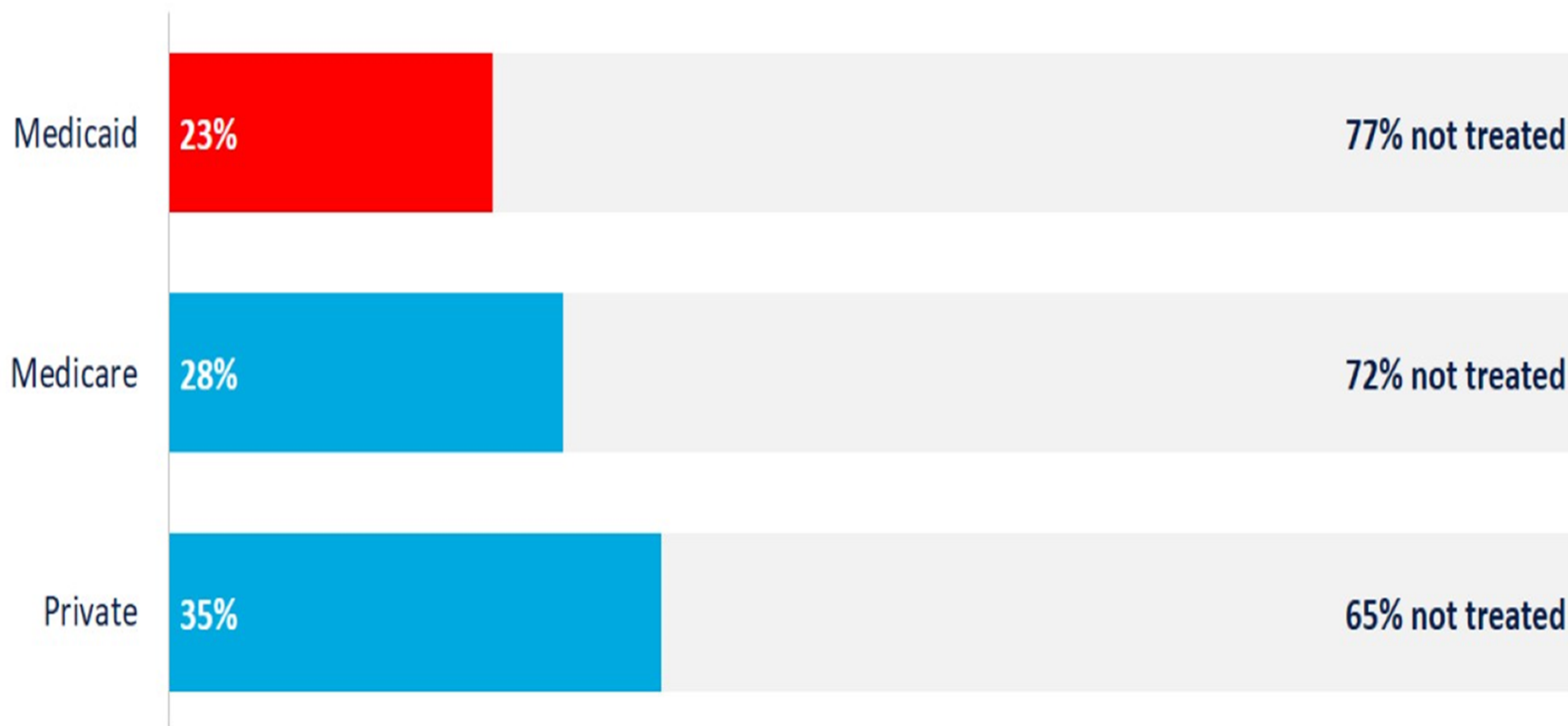
- Acute hepatitis C: B17.1
- Chronic hepatitis C: B18.2
- Contact with and exposure to viral hepatitis: Z20.5

Codes	HCV antibody test with reflex to quantitative HCV RNA test	Quantitative HCV RNA test
CPT	86803 ³	87522 ³
Quest Diagnostics™	8472 ⁴	35645 ⁴
LabCorp	144050 ⁵	551300 ⁵



Treatment is lowest among patients in state-administered Medicaid plans, with fewer than 1 in 4 Medicaid recipients being treated within a year of diagnosis*

Timely HCV treatment by insurance type



Centers for Disease Control and Prevention. New CDC data reveal less than a third of people diagnosed with hepatitis C receive timely treatment. Accessed November 2, 2022.

<https://www.cdc.gov/nchhstp/newsroom/2022/2022-Hep-C-Vital-Signs.html>

* HCV treatment started within 12 months of diagnosis from January 30, 2019 to October 31, 2020

Hepatitis C Treatment

- Over 90% of HCV-infected people can be cured of HCV infection with 8–12 weeks of oral therapy (see www.cdc.gov/hepatitis/hcv/hcvfaq.htm#d1). There are medications for the treatment of chronic and acute HCV infection (see www.hcvguidelines.org).
- HHSC considers HCV a significant burden to the health of individuals and revised the policies around the drugs used to treat HCV, to make them easier to prescribe and obtain.
- AbbVie manufactures Mavyret (Glecaprevir/Pibrentasvir), HHSC's preferred direct-acting antiviral (DAA), for treating HCV.
- Access and availability of DAA (Direct acting antivirals) affects HCV cure rates.
- More provider types are now able to treat HCV as the landscape changes.

Treatment

Used to treat adults and children 3 years of age and older with chronic HCV;

Available to all Medicaid clients for DAA treatment, regardless of the client's METAVIR fibrosis score;

Available without a prior authorization or drug screening requirements.

Able to be prescribed by any Medicaid provider for an 8–12-week treatment duration, though providers may write refills for a more extended period if needed.

Pre-treatment assessments are needed prior to treatment;

After completion of treatment for HCV infection, patients are assessed for treatment success



Hepatitis C Treatment Initiation Low Among Medicaid Recipients

In a large retrospective cohort study, investigators found hepatitis C (HCV) treatment initiation was low among Medicaid beneficiaries overall and varied by demographic characteristics and comorbidities.

The study's findings were published in *JAMA Network Open*.¹

- Specifically, the investigators saw there was a significant difference of lower treatment initiation in people younger than 30 years old, females, Hispanic and Asian individuals, and people who inject drugs (PWID).
- “Of 161 623 patients with an HCV diagnosis during the study period, 87 652 were included in the final analysis. Of the included patients, 43 078 (49%) were females, 12 355 (14%) were age 18 to 29 years, 35 181 (40%) were age 30 to 49 years, 51 282 (46%) were non-Hispanic White, and 48 840 (49%) had an IDU [injection drug use] diagnosis. Additionally, 17 927 patients (20%) received HCV treatment within 6 months of their HCV diagnosis,” the investigators wrote.

Study Takeaways

- DDA therapy can provide curative treatment of HCV but remains underutilized. This study points to specific populations and people with a specific comorbidity (IDU) that public health officials and clinicians can target for educational programs to increase treatment uptake.
- “Treatment initiation was significantly lower among younger individuals and who had diagnoses or treatments suggestive of IDU. Young PWID are a priority population for elimination programming due to several barriers to treatment, including **low perceived severity of HCV, its long asymptomatic period, decreased engagement with health care, stigma, socioeconomic instability, and policies that restrict treatment coverage to those with severe disease or documented sobriety.**”
- “These findings suggest that interventions are needed to increase treatment rates for hepatitis C overall and among key populations and **ensure equity in treatment** within the Medicaid program,” the investigators wrote.

1. Kapadia SN, Zhang H, Gonzalez CJ, et al. Hepatitis C Treatment Initiation Among US Medicaid Enrollees. *JAMA Netw Open*. 2023;6(8):e2327326. doi:10.1001/jamanetworkopen.2023.27326



Pre-treatment Follow up



Pretreatment assessments¹

Any time prior to starting antiviral therapy

HBV coinfection:

All patients should be tested for evidence of current or prior HBV infection (3-part HBV panel: HBsAg, HBsAb, HBcAb)⁸

Quantitative **HCV RNA** (HCV viral load)

HCV genotyping may be considered for those in whom it may alter treatment recommendations

HIV antigen/antibody test

- CPT code: 87902³
- Quest Diagnostics™ code: 37811⁴
- LabCorp code: 550475⁵

- Within **6 months** of initiating treatment in **non-cirrhotic** patients
- Within **3 months** of initiating treatment in **cirrhotic** patients

Hepatic function panel

- Alanine aminotransferase
- Aspartate aminotransferase
- Direct bilirubin
- Albumin
- Total bilirubin

International normalized ratio

Complete blood count

- Platelets

Calculated glomerular filtration rate

FIB-4⁹

$$\frac{\text{Age (years)} \times \text{AST (U/L)}}{\text{Platelet count (10}^9\text{/L)} \times \sqrt{\text{ALT (U/L)}}}$$

FIB-4 >3.25¹⁰

- 55% sensitivity
- 92% specificity



for predicting cirrhosis

Reference: HCV.com



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Chronic HCV Infection: Pretreatment Assessment Guide

HCV.com



Pretreatment assessments¹

Additional consideration prior to treatment



Medication reconciliation

Record current medications, including over-the-counter drugs and dietary supplements



Concomitant medications

- Drug-drug interactions can be assessed using the AASLD/IDSA guidance or the University of Liverpool drug interaction checker
- In patients with HIV, the simplified treatment approach should not be used in those on TDF-containing regimens with eGFR <60 mL/min because of the need of additional monitoring



Patient counseling/education

- Educate the patient about proper administration of medications, adherence, and prevention of reinfection



Immunization

- Vaccination against HAV and HBV is recommended for all susceptible persons with HCV infection
- Vaccination against pneumococcal infection is recommended for all patients with cirrhosis

Treatment

Effective Jan. 1, 2023, Texas Medicaid's Vendor Drug Program designated Mavyret® (Glecaprevir/Pibrentasvir) as the preferred direct-acting antiviral (DAA) for the treatment of hepatitis C. Mavyret is a once-daily, pan-genotypic DAA that has demonstrated remarkable efficacy in treating patients with chronic hepatitis C across various genotypes, and offers a potent and well-tolerated therapeutic option.

Mavyret is:

- Used to treat adults and children 3 years of age and older with chronic hepatitis C virus (HCV)
- Available to all Medicaid recipients for DAA treatment, regardless of their METAVIR fibrosis score
- Available without prior authorization or medication screening requirements
- Able to be prescribed by any Medicaid provider for an 8-week treatment duration, though providers may write refills for a more extended period if needed. Patients no longer need to request additional refills during their treatment.



Texas Medicaid Preferred drug list(PDL) July 2023

<https://www.txvendordrug.com/formulary/formulary-search>

HEPATITIS C AGENTS

PA Criteria (client must meet at least one of the listed PA criteria):

- Treatment failure with preferred drugs within any subclass
- Contraindication to preferred drugs
- Allergic reaction to preferred drugs
- Treatment of stage-four advanced, metastatic cancer and associated conditions
- For drugs in a therapeutic class or subclass with no preferred option, the provider must obtain a PDL prior authorization

PREFERRED AGENTS	NON-PREFERRED AGENTS
PEGYLATED INTERFERONS	
	PEGASYS (pegylated IFN alfa-2a)
POLYMERASE/PROTEASE INHIBITORS	
MAVYRET (glecaprevir/pibrentasvir)	EPCLUSA (sofosbuvir/velpatasvir)
	HARVONI (ledipasvir/sofosbuvir) tablets, pellet pack
	ledipasvir/sofosbuvir
	sofosbuvir/velpatasvir
	SOVALDI (sofosbuvir) tablets, pellet pack
	VIEKIRA PAK (dasabuvir/ombitasvir/paritaprevir/ritonavir)
	VOSEVI (sofosbuvir, velpatasvir, voxilaprevir)
	ZEPATIER (elbasvir/grazoprevir)
RIBAVIRIN	
ribavirin capsule	



Hepatitis C Treatment

Mavyret (Manufacture AbbVie)

Polymerase/Protease Inhibitors

<p>Mavyret (glecaprevir/Pibrentasvir)</p>	<p>Genotype 1, 2, 3, 4, 5, or 6: 8 weeks. Treatment-experienced patients: Genotype 1: (With or without cirrhosis): 16 weeks. Genotype 1, 2, 4, 5, or 6: Prior treatment with regimens containing interferon (including pegylated formulations), ribavirin, and/or Without cirrhosis: 8 weeks With compensated cirrhosis (Child-Pugh class A): 12 weeks. Genotype 3: (with or without cirrhosis): 16 weeks. Liver or kidney transplant recipient: Treatment naive: Genotypes 1, 2, 3, 4, 5, or 6 without prior treatment: 12 weeks. Treatment experienced: Genotype 1: 16 weeks. Genotype 3: 16 weeks.</p>	<p>coadministration is contraindicated with rifampin and atazanavir and not recommended with carbamazepine, oral contraceptive agents, St. John's wort, cyclosporine, and certain other HIV antiretrovirals.</p>	<p>Moderate or severe hepatic impairment (Child-Pugh class B or C); history of hepatic decompensation; coadministration with atazanavir or rifampin.</p>	<ul style="list-style-type: none"> - report symptoms of hepatitis - take with food - sprinkle pellets on a teaspoonful of soft food with low water content, to swallow the mixture immediately or within 15 minutes of preparing (do not crush or chew), and to not store for future use - avoid use of St. John's wort - take a missed dose as soon as possible if the delay is less than 18 hours after the scheduled dose. If the delay is longer than 18 hours, skip the missed dose and resume normal schedule
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Hepatitis C Treatment

Pegasys

Drugs	Duration of therapy	Drug Interactions	Contraindication	Patient Information
Pegylated Interferons				
Pegasys (pegylated IFN alfa-2a)	<p>Monotherapy</p> <ul style="list-style-type: none"> • 180 mcg subQ once a week for 48 weeks • (Genotype 1 or 4) 180 mcg subQ once a week; duration of therapy is 48 weeks in combination with ribavirin only. • (Genotype 2 or 3) 180 mcg subQ once a week; duration of therapy is 24 weeks in combination with ribavirin only. • (HIV coinfection) 180 mcg subQ once a week for 48 weeks regardless of HCV genotype 	<p>Concurrent use of PEGINTERFERON ALFA-2A and TELBIVUDINE may result in increased risk of peripheral neuropathy. Concurrent use of PEGINTERFERON ALFA-2A and THEOPHYLLINE may result in theophylline toxicity (nausea, vomiting, palpitations, seizures). Concurrent use of CLOZAPINE and MODERATE OR WEAK CYP1A2 INHIBITORS may result in increased clozapine exposure.</p>	<ul style="list-style-type: none"> -Autoimmune hepatitis -Hepatic decompensation (Child-Pugh score greater than 6 (class B and C)) in cirrhotic patients before treatment. -Hepatic decompensation (Child-Pugh score greater than or equal to 6) in cirrhotic patients co-infected with hepatitis C and HIV before treatment. -Hypersensitivity reactions, including urticaria, angioedema, bronchoconstriction, anaphylaxis, or Stevens-Johnson syndrome to alfa interferons or any component of the product. -Men taking concomitant ribavirin with a pregnant female partner. -Neonates and infants; peginterferon alfa-2a contains benzyl alcohol. -Pregnancy with concomitant ribavirin use; may cause birth defects and death of the exposed fetus. 	<ul style="list-style-type: none"> -Call your doctor or get medical help if side effects bother you or do not go away. -The use of reliable contraception applies during treatment and up to 6 months after therapy ends. -Rotate injection sites - Avoid drinking alcohol to reduce the chance of further liver injury - If a dose is missed or up to 2 days late, patient should take dose as soon as possible. If the missed dose is more than 2 days late, patient should contact healthcare professional.




Hepatitis C Treatment

Harvoni

<p>HARVONI (Ledipasvir-sofosbuvir)</p>	<p>Genotype 1 or 4 only Treatment with/without Cirrhosis: Ledipasvir 90 mg/sofosbuvir 400 mg orally once daily for 12 weeks</p>	<p>Ledipasvir, like sofosbuvir, is a substrate of the P-glycoprotein (P-gp) drug transporter, so drugs that are potent intestinal P-gp inducers may decrease ledipasvir levels. Thus, coadministration of ledipasvir-sofosbuvir is not recommended with rifampin, rifabutin, rifapentine, St. John's wort, carbamazepine, phenytoin, phenobarbital, oxcarbazepine, or tipranavir/ritonavir. Amiodarone: Symptomatic bradycardia (some requiring pacemaker intervention) and fatal cardiac arrest has occurred in patients receiving amiodarone and ledipasvir/sofosbuvir. Increased gastric pH levels may decrease absorption of ledipasvir. Acid suppressing agents can be co-administered, if necessary, but low doses or spaced-out administration should be used.</p>	<p>Specific contraindications have not been determined</p>	<p>Pellets: Administer with or without food. If administered without food, pour packet contents directly in the mouth and swallow without chewing to avoid bitter aftertaste; follow with water if needed. If administered with food, sprinkle packet contents on ≥1 spoonful of nonacidic soft foods (eg, pudding, chocolate syrup, mashed potatoes, ice cream) at or below room temperature; gently mix. Swallow entire contents within 30 minutes of mixing; do not chew to avoid bitter aftertaste.</p>
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Hepatitis C Treatment

	Sovaldi	Viekira Pak	Vosevi	Zepatier
Dose	400 mg orally once daily for up to 48 weeks or until transplantation; give in combination with ribavirin 500 mg orally twice daily (weight less than 75 kg) or ribavirin 600 mg orally twice daily (75 kg or greater)	(Immediate-release, less than 75 kg) 2 tablets (ombitasvir 12.5 mg/paritaprevir 75 mg/ritonavir 50 mg per tablet) orally once every morning plus 1 tablet (dasabuvir 250 mg) orally twice daily in the morning and evening plus ribavirin 1000 mg/day administered in 2 divided doses with food; continue treatment for 24 weeks	Sofosbuvir 400 mg/velpatasvir 100 mg/voxilaprevir 100 mg orally once daily with food for 12 weeks	Elbasvir 50 mg/grazoprevir 100 mg orally once daily for 16 weeks; give with ribavirin (CrCl greater than 50 mL/min), 800 mg/day (less than 66 kg); 1000 mg/day (66 to 80 kg); 1200 mg/day (81 to 105 kg); 1400 mg/day (greater than 105 kg)
Adverse Effects	Pruritus, Diarrhea, Anemia, Headache, Insomnia, Fatigue	Fatigue, insomnia, nausea, hypersensitivity reactions, pruritis	Diarrhea, Nausea, Headache, Fatigue	Nausea, Headache, Fatigue
Drug Interactions	Amiodarone → risk of bradycardia Atazanavir → increased sofosbuvir exposure Rosuvastatin → increased risk of myopathy and rhabdomyolysis Rifapentine → reduced sofosbuvir plasma concentrations Itraconazole → increased risk of adverse effects Warfarin → fluctuations in INR	Drugs that are moderate or strong inducers of CYP3A and CYP2C8 and may lead to reduced efficacy; concomitant use with drugs that are strong inhibitors of CYP2C8 and may increase the risk of QT prolongation	Many drug interactions, mainly with drugs that are strong CYP3A4 inducers	Many drug interactions mainly with drugs that are strong CYP3A4 inducers
Contraindications	Concurrent use of Rifampin	Concomitant drugs that are highly dependent on CYP3A for clearance and for which elevated plasma concentrations are associated with serious and/or life threatening events	Concomitant use with rifampin	Moderate or severe hepatic impairment (Child-Pugh B or C) or any history of hepatic decompensation; Use with strong CYP3A inducers; Use with efavirenz
Monitoring	Improvement in signs or symptoms of hepatitis C is indicative of efficacy; Clinical and laboratory signs of hepatitis flare or HBV reactivation; in patients with evidence of current or prior HBV infection during treatment and post-treatment follow-up	Reduction from baseline in hepatitis C virus-RNA viral load may indicate efficacy; Hepatic labs; prior to treatment, first 4 weeks of treatment, and as clinically indicated thereafter; Signs or symptoms of hepatic decompensation, in patients with cirrhosis; Signs and symptoms of hypotension, worsening renal function, or edema	Clinical and laboratory signs of hepatitis flare or HBV reactivation, in patients with evidence of current or prior HBV infection: During treatment and post-treatment follow-up; clinical and laboratory signs of hepatic disease or worsening hepatic function	A reduction from baseline in hepatitis C virus-RNA viral load; Hepatic function tests: Prior to therapy, at treatment week 8, treatment week 12 (if receiving 16 weeks of therapy); Clinical and laboratory signs of hepatic disease and hepatic decompensation
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Patient Education	Avoid pregnancy, including in sexual partners, when combined with ribavirin and with peginterferon and ribavirin; take tablets without chewing or to mix with food	Advise patient to report symptoms of hepatic decompensation or failure; Tell patient to avoid pregnancy, including in sexual partner, during therapy with ribavirin; Take drugs with food	Advise patient to immediately report symptoms of bradycardia; Tell patient to immediately report symptoms of	Advise patient to report symptoms of liver inflammation or worsening liver problems; When given with ribavirin, instruct patient to avoid pregnancy during treatment and for

Question

Mavyret :

1. Is a prescription medicine used to treat adults and children 3 years of age and older with Hepatitis C for 8-16 weeks
2. Is Direct acting antiviral that covers all genotypes 1,2,3,4,5,6 without cirrhosis or compensated cirrhosis
3. Contraindicated it with Atazanavir or Rifampin
4. Most common side effects are headache and tiredness
5. All of the above



ICUE and Community Care pharmacy data

ICUE :

- Log in
- History
- Pharmacy claims
- Populated by current date
- Ability to sort it by alphabetical order for medication history details
- Clinical interventions using the data

Community Care :

- Pharmacy data
- Education for Current list, member reported medications

Education to bring the current list and discuss barriers/concerns with the provider



ICUE- Pharmacy Best practices

Pharmacy Claims History									
Medication	Date of Service	Days Supply	Dispensed Qty	Route	Mail Order Indicator	Prescriber Name	Prescriber Specialty	Pharmacy Name	Source
+ Albuterol Neb 1.25mg/3	04-24-2023	6	75.000	INHALATION	R	HALVORSEN, ANNE		Walgreens #4647	Optum Rx
+ Alprazolam Tab 0.5mg	04-24-2023	30	60.000	ORAL	R	HALVORSEN, ANNE		Walgreens #4647	Optum Rx
+ Alprazolam Tab 0.5mg	02-28-2023	30	60.000	ORAL	R	HALVORSEN, ANNE		Walgreens #4647	Optum Rx
+ Alprazolam Tab 0.5mg	12-13-2022	30	60.000	ORAL	R	HALVORSEN, ANNE		Walgreens #4647	Optum Rx
+ Alprazolam Tab 0.5mg	10-25-2022	30	60.000	ORAL	R	HALVORSEN, ANNE		Walgreens #4647	Optum Rx
+ Azithromycin Tab 250mg	04-24-2023	5	6.000	ORAL	R	HALVORSEN, ANNE		Walgreens #4647	Optum Rx
+ Azithromycin Tab 250mg	02-28-2023	6	6.000	ORAL	R	HALVORSEN, ANNE		Walgreens #4647	Optum Rx
+ Benzonatate Cap 100mg	02-28-2023	8	30.000	ORAL	R	HALVORSEN, ANNE		Walgreens #4647	Optum Rx
+ Benzonatate Cap 100mg	09-08-2022	7	30.000	ORAL	R	HALVORSEN, ANNE		Walgreens #4647	Optum Rx
+ Brimonidine Sol 0.2% Op	08-04-2023	25	5.000	OPHTHALMIC	R	SHEN, KEVIN		Walgreens #4647	Optum Rx
+ Brimonidine Sol 0.2% Op	07-13-2023	25	5.000	OPHTHALMIC	R	SHEN, KEVIN		Walgreens #4647	Optum Rx
+ Budes/formot Aer 160-4.5	05-15-2023	90	30.600	INHALATION	R	FAISAL, MUHAMMAD	PULMONARY DISEASE	Walgreens #4647	Optum Rx
+ Budes/formot Aer 160-4.5	02-18-2023	90	30.600	INHALATION	R	FAISAL, MUHAMMAD	PULMONARY DISEASE	Walgreens #4647	Optum Rx
+ Budes/formot Aer 160-4.5	01-22-2023	30	10.200	INHALATION	R	FAISAL, MUHAMMAD	PULMONARY DISEASE	Walgreens #4647	Optum Rx
+ Budes/formot Aer 160-4.5	12-24-2022	30	10.200	INHALATION	R	FAISAL, MUHAMMAD	PULMONARY DISEASE	Walgreens #4647	Optum Rx
+ Budes/formot Aer 160-4.5	11-20-2022	30	10.200	INHALATION	R	FAISAL, MUHAMMAD	PULMONARY DISEASE	Walgreens #4647	Optum Rx
+ Budes/formot Aer 160-4.5	10-24-2022	30	10.200	INHALATION	R	FAISAL, MUHAMMAD	PULMONARY DISEASE	Walgreens #4647	Optum Rx
+ Budes/formot Aer 160-4.5	09-09-2022	30	10.200	INHALATION	R	FAISAL, MUHAMMAD	PULMONARY DISEASE	Walgreens #4647	Optum Rx
+ CARVEDILOL 6.25 MG TABLET	10-24-2022	90	180.0						ImpactPro
+ Carvedilol Tab 6.25mg	05-30-2023	90	180.000	ORAL	R	HALVORSEN, ANNE		Walgreens #4647	Optum Rx
+ Carvedilol Tab 6.25mg	02-28-2023	90	180.000	ORAL	R	ALLISON, LESLIE	Family Practice	Walgreens #4647	Optum Rx
+ Carvedilol Tab 6.25mg	12-22-2022	90	180.000	ORAL	R	KALIFE, GERARDO	Cardiovascular Diseases	Walgreens #4647	Optum Rx
+ Carvedilol Tab 6.25mg	11-16-2022	30	60.000	ORAL	R	KALIFE, GERARDO	Cardiovascular Diseases	Walgreens #4647	Optum Rx



ICUE and Community care pharmacy information

Summary | Member Details | Providers | Medications | Conditions | Diagnosis | Allergies/Sensitivities | Gaps In Care (GIC) | Plan of Care | Assessments | **History** | More

HSC History | Program History | Correspondence | Engagement History | **Pharmacy Claims** | Other Claims

Member: [Redacted]

Pharmacy Claims History

Medication	Date of Service	Days Supply	Dispensed Qty	Route	Mail Order Indicator	Prescriber Name	Prescriber Specialty	Pharmacy Name	Source
Spironolact Tab 25mg	08-07-2023	90	90.000	ORAL	R	HALVORSEN, ANNE		Walgreens #4647	Optum Rx
Brimonidine Sol 0.2% Op	08-04-2023	25	5.000	OPHTHALMIC	R	SHEN, KEVIN		Walgreens #4647	Optum Rx
Metolazone Tab 5mg	08-03-2023	21	6.000	ORAL	R	HALVORSEN, ANNE		Walgreens #4647	Optum Rx
Cetirizine Tab 10mg	08-03-2023	30	30.000	ORAL	R	FAISAL, MUHAMMAD	PULMONARY DISEASE	Walgreens #4647	Optum Rx
Furosemide Tab 40mg	08-01-2023	30	30.000	ORAL	R	HALVORSEN, ANNE		Walgreens #4647	Optum Rx
Losartan Pot Tab 25mg	07-28-2023	90	180.000	ORAL	R	HALVORSEN, ANNE		Walgreens #4647	Optum Rx
Vitamin D Cap 1.25mg	07-27-2023	90	12.000	ORAL	R	GOEL, NAMRATA	NEPHROLOGY	Walgreens #4647	Optum Rx
Faxiga Tab 5mg	07-22-2023	30	30.000	ORAL	R	GOEL, NAMRATA	NEPHROLOGY	Walgreens #4647	Optum Rx
Brimonidine Sol 0.2% Op	07-13-2023	25	5.000	OPHTHALMIC	R	SHEN, KEVIN		Walgreens #4647	Optum Rx
Latanoprost Sol 0.005%	07-13-2023	75	7.500	OPHTHALMIC	R	SHEN, KEVIN		Walgreens #4647	Optum Rx
Furosemide Tab 40mg	06-30-2023	30	30.000	ORAL	R	HALVORSEN, ANNE		Walgreens #4647	Optum Rx
Pantoprazole Tab 40mg	06-27-2023	90	90.000	ORAL	R	HALVORSEN, ANNE		Walgreens #4647	Optum Rx
Cetirizine Tab 10mg	06-26-2023	30	30.000	ORAL	R	FAISAL, MUHAMMAD	PULMONARY DISEASE	Walgreens #4647	Optum Rx
Faxiga Tab 5mg	06-26-2023	30	30.000	ORAL	R	GOEL, NAMRATA	NEPHROLOGY	Walgreens #4647	Optum Rx
Furosemide Tab 40mg	05-31-2023	30	30.000	ORAL	R	HALVORSEN, ANNE		Walgreens #4647	Optum Rx
FUROSEMIDE 40 MG TABLET	05-30-2023	30	30.0						ImpactPro
FUROSEMIDE 40 MG TABLET	05-30-2023	30	30.0						ImpactPro
Carvedilol Tab 6.25mg	05-30-2023	90	180.000	ORAL	R	HALVORSEN, ANNE		Walgreens #4647	Optum Rx
Faxiga Tab 5mg	05-23-2023	30	30.000	ORAL	R	GOEL, NAMRATA	NEPHROLOGY	Walgreens #4647	Optum Rx
Metolazone Tab 5mg	05-15-2023	84	24.000	ORAL	R	HALVORSEN, ANNE		Walgreens #4647	Optum Rx
Budes/formot Aer 160-4.5	05-15-2023	90	30.600	INHALATION	R	FAISAL, MUHAMMAD	PULMONARY DISEASE	Walgreens #4647	Optum Rx
Cetirizine Tab 10mg	05-09-2023	30	30.000	ORAL	R	FAISAL, MUHAMMAD	PULMONARY DISEASE	Walgreens #4647	Optum Rx
Spironolact Tab 25mg	05-01-2023	90	90.000	ORAL	R	KALIFE, GERARDO	Cardiovascular Diseases	Walgreens #4647	Optum Rx
Brimonidine Sol 0.2% Op	04-26-2023	15	10.000	OTIC	R	HALVORSEN, ANNE		Walgreens #4647	Optum Rx



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Pharmacy claims in ICUE

Pharmacy Claims History									
Medication	Date of Service	Days Supply	Dispensed Qty	Route	Mail Order Indicator	Prescriber Name	Prescriber Specialty	Pharmacy Name	Source
⊕ Divalproex Tab 500mg Er	09-22-2023	60	60.000	ORAL	M	MAHAN, JOEL	Family Practice	Optum Pharmacy 704, Inc.	Optum Rx
⊕ Divalproex Tab 500mg Er	08-07-2023	60	60.000	ORAL	R	GEURKINK, ANNA		Heb Pharmacy	Optum Rx
⊕ Divalproex Tab 500mg Er	06-11-2023	60	60.000	ORAL	R	GEURKINK, ANNA		Heb Pharmacy	Optum Rx
⊕ Eliquis Tab 5mg	01-08-2024	30	60.000	ORAL	R	ETHRIDGE, SAMANTHA		Heb Pharmacy	Optum Rx
⊕ Eliquis Tab 5mg	10-11-2023	90	180.000	ORAL	R	ETHRIDGE, SAMANTHA		Heb Pharmacy	Optum Rx
⊕ Fluoxetine Cap 20mg	12-11-2023	30	90.000	ORAL	R	MAHAN, JOEL	Family Practice	Heb Pharmacy	Optum Rx
⊕ Fluoxetine Cap 20mg	08-07-2023	30	90.000	ORAL	R	LESSMAN, STACY	Family Practice	Heb Pharmacy	Optum Rx
⊕ Fluoxetine Cap 20mg	06-12-2023	30	90.000	ORAL	R	LESSMAN, STACY	Family Practice	Heb Pharmacy	Optum Rx
⊕ Fluoxetine Tab 60mg	06-11-2023	30	30.000	ORAL	R	GEURKINK, ANNA		Heb Pharmacy	Optum Rx
⊕ Fluoxetine Tab 60mg	05-12-2023	30	30.000	ORAL	R	GEURKINK, ANNA		Heb Pharmacy	Optum Rx
⊕ Hydroxyz Hcl Tab 50mg	02-28-2024	30	30.000	ORAL	R	MAHAN, JOEL	Family Practice	Heb Pharmacy	Optum Rx
⊕ Hydroxyz Hcl Tab 50mg	01-12-2024	30	30.000	ORAL	R	MAHAN, JOEL	Family Practice	Heb Pharmacy	Optum Rx
⊕ Hydroxyz Hcl Tab 50mg	12-11-2023	30	30.000	ORAL	R	MAHAN, JOEL	Family Practice	Heb Pharmacy	Optum Rx
⊕ Hydroxyz Hcl Tab 50mg	08-07-2023	30	30.000	ORAL	R	MAHAN, JOEL	Family Practice	Heb Pharmacy	Optum Rx
⊕ Hydroxyz Hcl Tab 50mg	06-11-2023	30	30.000	ORAL	R	MAHAN, JOEL	Family Practice	Heb Pharmacy	Optum Rx
⊕ Hydroxyz Hcl Tab 50mg	05-09-2023	30	30.000	ORAL	R	MAHAN, JOEL	Family Practice	Heb Pharmacy	Optum Rx
⊕ Jantoven Tab 5mg	08-07-2023	30	30.000	ORAL	R	FALCONE, ADAM	Cardiovascular Diseases	Heb Pharmacy	Optum Rx
⊕ Jantoven Tab 5mg	06-11-2023	30	30.000	ORAL	R	FALCONE, ADAM	Cardiovascular Diseases	Heb Pharmacy	Optum Rx
⊕ Jantoven Tab 5mg	05-12-2023	30	30.000	ORAL	R	FALCONE, ADAM	Cardiovascular Diseases	Heb Pharmacy	Optum Rx
⊕ LEVOTHYROXINE 200 MCG TABLET	12-28-2023	90	90.0						ImpactPro
⊕ Levothyroxin Tab 200mcg	01-12-2024	30	30.000	ORAL	R	MAHAN, JOEL	Family Practice	Heb Pharmacy	Optum Rx
⊕ Levothyroxin Tab 200mcg	10-17-2023	30	30.000	ORAL	R	MAHAN, JOEL	Family Practice	Heb Pharmacy	Optum Rx
⊕ Levothyroxin Tab 200mcg	08-07-2023	30	30.000	ORAL	R	MAHAN, JOEL	Family Practice	Heb Pharmacy	Optum Rx
⊕ Levothyroxin Tab 200mcg	06-11-2023	30	30.000	ORAL	R	MAHAN, JOEL	Family Practice	Heb Pharmacy	Optum Rx
⊕ METOPROLOL TARTRATE 50 MG TAB	09-05-2023	90	180.0						ImpactPro
⊕ METOPROLOL TARTRATE 50 MG TAB	01-18-2024	180	360.0						ImpactPro
⊕ Mavyret Tab 100-40mg	07-05-2023	28	84.000	ORAL	R	ETHRIDGE, SAMANTHA		Optum Pharmacy 704, Inc	Optum Rx
⊕ Mavyret Tab 100-40mg	05-31-2023	28	84.000	ORAL	R	ETHRIDGE, SAMANTHA		Optum Pharmacy 701, Llc	Optum Rx
⊕ Metoprol Tar Tab 50mg	01-29-2024	90	180.000	ORAL	M	MAHAN, JOEL	Family Practice	Optumrx, Inc.	Optum Rx
⊕ Metoprol Tar Tab 50mg	11-22-2023	90	180.000	ORAL	M	MAHAN, JOEL	Family Practice	Optumrx, Inc.	Optum Rx
⊕ Metoprol Tar Tab 50mg	06-12-2023	90	180.000	ORAL	R	LESSMAN, STACY	Family Practice	Heb Pharmacy	Optum Rx



Question

Which drug/s is a preferred drug per Vendor drug program to treat Hepatitis C for Texas Medicaid?

- 1) Mavyret
- 2) Epclusa
- 3) Pegasis
- 4) All of the above



Post-treatment Follow up



SVR12 not achieved¹

For patients with detectable HCV RNA, ≥ 12 weeks posttreatment

Recommendations for all patients:

- **Re-treatment should be considered:** Patients who failed to achieve undetectable SVR by 12 weeks posttreatment with initial treatment should be evaluated for re-treatment by a specialist*
- **Assess disease progression every 6–12 months with:**
 - Hepatic function panel
 - CBC
 - INR

Recommendations for patients with cirrhosis:

- Use **upper endoscopy** in accordance with the AASLD guidance of portal hypertensive bleeding in cirrhosis[†]
- Surveillance for HCC with biannual ultrasound examination, with or without AFP

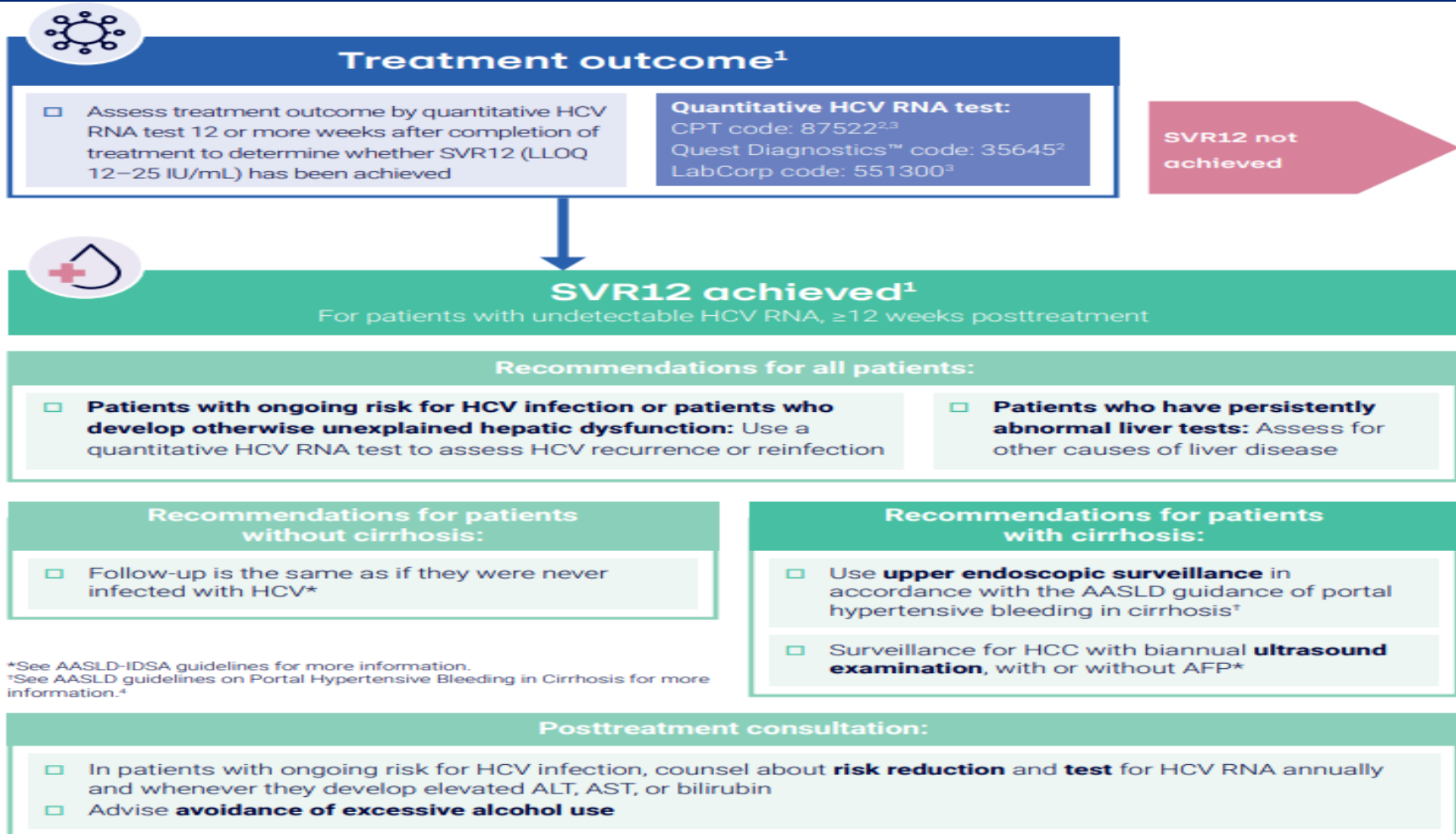
Patients with decompensated cirrhosis (regardless of SVR12 status) with HCV infection should be referred to a medical practitioner with expertise in that condition – preferably in a liver transplant center

*See AASLD-IDSA guidelines for more information. [†]See AASLD guidelines on Portal Hypertensive Bleeding in Cirrhosis for more information.⁴

References

1. AASLD and IDSA. HCV Guidance: Recommendations for Testing, Managing, and Treating Hepatitis C. Last updated October 2022. www.hcvguidelines.org. Accessed March 2023.
2. Quest Diagnostics™. Hepatitis C Viral RNA, Quantitative, Real-Time PCR. <https://testdirectory.questdiagnostics.com/test/test-detail/35645/hepatitis-c-viral-rna-quantitative-real-time-pcr?p=r&q=35645&cc=MASTER>. Accessed March 2023.
3. LabCorp. Hepatitis C Virus (HCV), Quantitative, RNA. <https://www.labcorp.com/tests/551300/hepatitis-c-virus-hcv-quantitative-maabbott-realtime>. Accessed March 2023.
4. AASLD. *Hepatology* 2017;65:310–35.

Post-treatment Follow-up



Reference: HCV.com



C&S Texas Hepatitis C Treatment Initiative

Objective: Hepatitis C is a serious viral infection. Many people who get hepatitis C may not feel sick at first. If the virus is not treated, it can damage your liver, make you feel tired all the time, and increase your chance of developing diabetes and other medical conditions. For many people, hepatitis C is treated and cured with an eight-to-sixteen-week course of medication. Direct-acting antivirals (DAAs) are used to treat adults and children 3 years old and older with chronic hepatitis C.

Program Scope: Hepatitis C members without a treatment
1842 members identified
LOB: STARPlus

Total outreach:
1266 providers
1842 members

Program overview:

Member letters
Provider letters

Provider education: Medical grand rounds, Provider advisory committee
UHCprovider.com
Provider educational webinar sent to 3900 providers
Member outreach for education by CCM team



C&S Texas Hepatitis C Initiative

Providers:



- Identified providers of targeted members for outreach and coordination
- Letters distributed identifying patients of interest
- Provide resources including educational webinar on treatment

Follow up:



- Plan for member and provider follow-up after initial member outreach and provider letter mailings

Members:



- Identified appropriate members for outreach based on diagnosis and prescription claims data
- Provide education and care coordination

Collaboration:



- with manufacturer
- Provider education resources and support



Collaboration

Helping patients live healthier lives is our mission. We are engaging with Medicaid members and providers through outreach and educational opportunities focused on prevention and life-saving treatment for Hepatitis C. Our hope is through these efforts members will avoid long-term complications and be cured of HCV.



Ways to Healthy Liver

The best way to fight liver disease is to avoid it, if at all possible. Here are 13 tried and true ways to have a healthy liver!

- **Maintain a healthy weight.** If you're obese or even somewhat overweight, you're in danger of having a fatty liver that can lead to non-alcoholic fatty liver disease (NAFLD)*, one of the fastest growing forms of liver disease. Weight loss can play an important part in helping to reduce liver fat.
- **Eat a balanced diet.** Avoid high calorie-meals, saturated fat, refined carbohydrates (such as white bread, white rice and regular pasta) and sugars. Don't eat raw or undercooked shellfish. For a well-adjusted diet, eat **fiber**, which you can obtain from fresh fruits, vegetables, whole grain breads, rice and cereals. Also eat **meat** (but limit the amount of red meat), **dairy** (low-fat milk and small amounts of cheese) and **fats** (the "good" fats that are monounsaturated and polyunsaturated such as vegetable oils, nuts, seeds, and fish). Hydration is essential, so drink a lot of water.
- **Exercise regularly.** When you exercise consistently, it helps to burn triglycerides for fuel and can also reduce liver fat.
- **Avoid toxins.** Toxins can injure liver cells. Limit direct contact with toxins from cleaning and aerosol products, insecticides, chemicals, and additives. When you do use aerosols, make sure the room is ventilated, and wear a mask. Don't smoke.
- **Use alcohol responsibly.** Alcoholic beverages can create many health problems. They can damage or destroy liver cells and scar your liver.
- **Avoid the use of illicit drugs.** In 2012, nearly 24 million Americans aged 12 or older were current illicit drug users, meaning they had used an illicit drug
- **Avoid contaminated needles.**
- **Get medical care if you're exposed to blood.** If for any reason you come into contact with someone else's blood, immediately follow up with your doctor. If you're very concerned, go to your nearest hospital's emergency room.
- **Don't share personal hygiene items.** For example, razors, toothbrushes and nail clippers can carry microscopic levels of blood or other body fluids that may be contaminated.
- **Practice safe sex.** Unprotected sex or sex with multiple partners increases your risk of hepatitis B and hepatitis C.
- **Wash your hands.** .
- **Follow directions on all medications.** When medicines are taken incorrectly by taking too much, the wrong type or by mixing medicines, your liver can be harmed. Never mix alcohol with other drugs and medications even if they're not taken at the same time. Tell your doctor about any over-the-counter medicines, supplements, and natural or herbal remedies that you use.
- **Get vaccinated.** There are vaccines for hepatitis A and hepatitis B. Unfortunately, there's no vaccine against the hepatitis C virus.

Education and prevention

1. Prevention:

There is no vaccine to prevent HCV infection

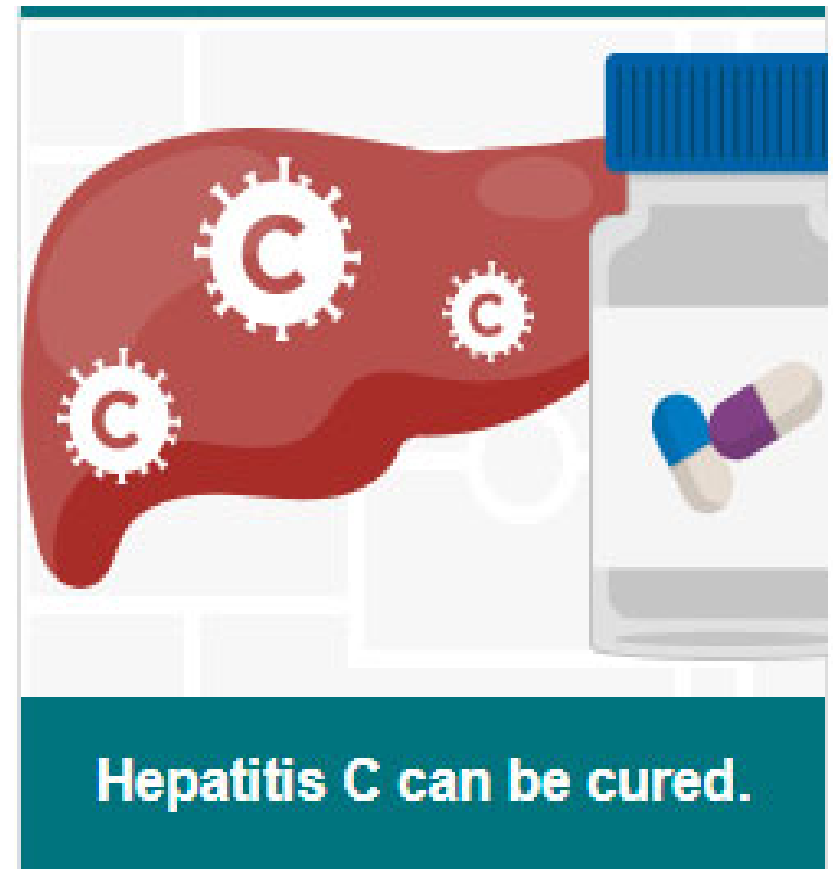
- Avoid usage of used drug injecting equipment
- Avoid tattooing, acupuncture or ear piercing where the equipment is not known to be adequately sterilized
- Practice safe sex

2. **Education:** is critical to address possible ways to overcome cultural/gender/racial/religious disparities in diagnosis/treatments suggested/provided.



Summary

- Prevention and education
- Relationship building : Motivational interviewing and reflective listening
- Pharmacy claims for medication adherence and using correct inhaler techniques and use of action plans
- Provider, member, community organization and pharmacy collaboration
- Provide resources and tools
- Discuss SDoH opportunities
- Follow ups
- Resources and tools – [UHCprovider.com](https://www.uhcprovider.com)



Resources

- <https://www.hhs.gov/hepatitis>
- [Hepatitis C Treatment | Vendor Drug Program \(txvendordrug.com\)](#)
- [Hepatitis C Treatment | Texas Health and Human Services](#)
- <https://www.hhs.texas.gov/services/health/prevention/hepatitis-c-treatment>
- www.HCV.com
- [MAVYRET \(glecaprevir/pibrentasvir\) for Hepatitis C - Official Site](#)
- [Hepatitis C | Texas DSHS](#)
- [Hepatitis C resources for health care providers | CDC](#)
- <https://liverfoundation.org/>

