



Liver Disease & Hepatitis Program
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We are glad to hear you are interested in treatment for hepatitis C!

Here are some things to think about (and do) before you make your final decision about treatment:

Why do treatment now? New medicines have increased the chance of cure and have fewer side effects.

Why would I wait? Within 1-2 years additional new medicines will be available. They may work even better, shorten treatment time, cost less, and have fewer side effects.

Some people have worse liver disease than others. If you have more severe liver disease (a lot of scarring in the liver or cirrhosis) you should consider getting treatment sooner.

What will happen during treatment?

There are 2 medication options for genotype 1:

- Option 1 is Harvoni[®] (ledipasvir/sofosbuvir), 1 tablet taken once a day by mouth. Treatment length is 12 weeks for most patients. 24 weeks of treatment is required for some persons with decompensated (significant) cirrhosis AND persons with cirrhosis who had previous treatment that failed. The major side effects (experienced in $\geq 10\%$ of clinical trial subjects) include feeling tired and headache. In clinical studies, treatment response rates for Harvoni[®] were 94-100%.
- Option 2 is Viekira Pak[®] (ombitasvir, paritaprevir, and ritonavir tablets; dasabuvir tablets) co-packaged as 3 tablets in the morning and 1 tablet in the evening with food. Most treatments with Viekira Pak[®] also require ribavirin, which is 5-6 additional tablets divided between morning and evening with food. Treatment length is 12 to 24 weeks depending on genotype subtype and cirrhosis status. The major side effects include feeling tired, nausea, itching and skin rash, trouble sleeping and weakness. A common side effect of ribavirin is anemia. In clinical studies, treatment response rates for Viekira Pak[®] and Viekira Pak[®]/ribavirin were 86-100%.

Genotype 2 and 3 treatment is Sovaldi[®] (sofosbuvir), which is 1 tablet once a day and 5-6 ribavirin capsules divided between morning and evening with food. Treatment length is 12 weeks for genotype 2 and 24 weeks for genotype 3. The major side effects include feeling tired, headache, nausea, insomnia, weakness, itching, diarrhea, and irritability. A common side effect of ribavirin is anemia. In clinical studies, treatment response rates for Sovaldi[®]/ribavirin were 82-100% in genotype 2 and 60% -93% in genotype 3.

- Another Genotype 3 treatment option for those who can take peginterferon, is 12 weeks of Sovaldi[®] (sofosbuvir) plus ribavirin (6-7 pills/day), and a weekly peginterferon injection can be given. In addition to the side effects occurring with Sovaldi[®]/ribavirin treatment additional side effects include flu-like symptoms, depression and body aches, and side

effects that may show up only in blood tests. In a clinical study, this treatment resulted in a treatment response rate of 83%.

PLEASE NOTE: No treatments containing ribavirin can be given to a pregnant or breastfeeding female or to a female who plans to become pregnant or a male who plans to father a child during treatment and for 6 months after treatment because this treatment can cause birth defects. There are no studies on ledipasvir or sofosbuvir (Harvoni® or Sovaldi®) in pregnant women or nursing mothers. Safety/risk during pregnancy or breastfeeding has not been established.

Are you ready for treatment?

There are several requirements for hepatitis C treatment. These requirements are to ensure that you are going to be successful in completing treatment, and to protect your physical and mental health. The following items must be done before you can start treatment. We will review them together.

- You must be alcohol and drug-free for at least 6 months before you can start treatment.
- You need to discuss hepatitis C treatment with your primary care provider and get his or her “OK” to start treatment. Your family medicine provider can help you with non-liver related health problems during and after treatment.
- You should have a relative or close friend who is willing to help support you during treatment. The person you choose should come with you to the pre-treatment appointment.
- You need to be committed to making every treatment appointment and getting **FREQUENT** blood draws (every 1-4 weeks). We will want to follow you very closely during treatment.

Additional Requirements If Checked:

_____ If you have cirrhosis, you may need an EGD (when a doctor looks into your esophagus and stomach for swollen veins that can bleed). This requires sedation and is done as a Day Surgery procedure. Your primary care provider will make this referral if needed.

_____ If you have cirrhosis, you need to have an ultrasound of the liver (done in the past 6 months). This ultrasound checks your liver for cancer.

_____ Other: _____

_____ Other: _____

Once everything you need to do on the list has been done, call your primary care provider to make an appointment to plan for hepatitis C treatment. At this appointment, treatment and side effects will be discussed in detail.

Please bring your support person with you to this appointment.

Congratulations on completing all the pre-treatment requirements!

Hepatitis C Pre-Treatment Checklist

Before Treatment Starts:

- **Labs:**

- Immediately prior: Pregnancy test
 Uric Acid (with ribavirin)
- Within 1 month: Complete Blood Count with differential
 Comprehensive Metabolic Panel
(If GFR <30, do not start treatment; consult Liver Disease Specialist)
 PT/INR
- Within 3 months: HCV RNA
 Genotype confirmation
- Within 6 months: AFP
 TSH
 A1C or Fasting Glucose
 Vitamin D 25OH
- Within 1 year: HIV screening

- **Screen & Review:** AUDIT-C ___ PHQ-9 ___
Drug & Alcohol Screen (at discretion of provider) ___

- **Vaccine Status/Screening:**

- Hepatitis A & B vaccinations are recommended for all persons with HCV
 - Hepatitis A (If vaccine status is unknown, check hep A total IgG)
 - Hepatitis B (If vaccine status is unknown, check HBsAg & HBsAb)
- Other vaccines as appropriate:
 - Flu (annually)
 - Pneumococcal-13 (≥ age 65 or high risk/immunosuppressed)
 - Pneumococcal-23 (≥ age 50 AN/AI living in Alaska or high risk)
 - Td (once every 10 years) **OR** Tdap (once)
 - Zoster (≥ age 60)

Pre-Treatment Clinical Evaluation:

- Medical history including liver disease history and past hepatitis C treatment
 - Hypertension/Diabetes controlled
 - Counsel about smoking cessation
 - Counsel about pregnancy prevention (see Treatment Agreement)
- Review all medications; check for drug interactions with treatment meds
- Physical Exam
- Hepatitis C Treatment Agreement reviewed and signed
- ECG (If treatment includes ribavirin or peginterferon, over age 65 or h/o cardiac disease)

If treatment includes peginterferon complete the following:

- Mental Health Evaluation if h/o depression or other psychiatric condition
- Stress Test (h/o cardiac disease, prior to peginterferon or ribavirin)
- Dilated retinal/ophthalmology exam (peginterferon candidates only who have HTN, HLD, DM, or h/o retinal disease or blindness)

Harvoni® (Ledipasvir/Sofosbuvir) Treatment Agreement

If you are considering hepatitis C treatment, please read this treatment agreement carefully and be sure to ask any questions you may have before you sign the form.

In October 2014, the FDA approved ledipasvir combined with sofosbuvir in one tablet (Harvoni®) for the treatment of hepatitis C genotype 1.

Treatment with Harvoni® requires 4 scheduled visits over a 5 month period if your treatment course is 8 weeks, 5 scheduled visits over 6 months if your treatment course is 12 weeks, and 9 scheduled visits over 9 months if your treatment course is 6 months.

PREGNANCY & BREASTFEEDING WARNING

It is not known if Harvoni® will harm an unborn or breastfeeding baby, so it is recommended that women do not get pregnant or breastfeed while taking this medicine.

HOW THE TREATMENT PROCESS WORKS

You will have blood and urine tests.

- These tests will include a pregnancy test for female patients. A urine pregnancy test will be done monthly during a clinic visit.
- Random drug and alcohol tests may be requested.
- At each visit, about 2-3 tubes of blood will be collected. Other examinations and tests may be done during the treatment if your provider feels there is a need.

Provider, select the appropriate treatment regimen and reason:

____ Harvoni® will be given for 12 weeks if:

- You do not have cirrhosis and have never been treated before;
- You have cirrhosis and have never been treated before;
- You do not have cirrhosis and prior treatment failed.

____ Harvoni® can be given for a shortened course of 8 weeks if you do not have cirrhosis, have never been treated before, and have a viral load of <6 million.

____ Harvoni® will be given for 24 weeks if you have cirrhosis and prior treatment failed.

Your first three visits will be at the start of treatment (week 0) and weeks 2 and 4 after you begin taking the medication. Week 2 visit will be at the discretion of your provider. After that, the visits will be once each month until you stop taking the medications.

You may need to see your primary care provider more frequently if you are having side effects or problems related to the treatment.

You will have follow-up 3 months after treatment completion. If you have cirrhosis you should continue to have a liver ultrasound every six months and regular clinic visits.

TREATMENT MEDICATIONS AND SIDE EFFECTS

Harvoni[®] is a fixed-dose combination tablet containing ledipasvir 90mg and sofosbuvir 400mg. You will take Harvoni[®] once daily by mouth with or without food. Store the medication at room temperature. If you miss a dose, take the missed dose as soon as you remember the same day. Do not take more than 1 tablet of Harvoni[®] in a day. Take your next dose at your regular time the next day.

- The most common side effects are tiredness and headache.

Tell your healthcare provider if you are taking any of the following medicines:

- Amiodarone (Cordarone[®], Nexterone[®], Pacerone[®])
- An antacid that contains aluminum or magnesium hydroxide. If you take an antacid during treatment with Harvoni[®], take the antacid 4 hours before or 4 hours after you take Harvoni[®].
- Medicines for indigestion, heartburn, or stomach ulcers, such as nizatidine (Axid[®]), famotidine (Pepcid AC[®]), cimetidine (Tagamet[®]), ranitidine (Zantac[®]). If you are taking one of these medications, take it at the same time or 12 hours apart from Harvoni[®].
- Other medications for indigestion, heartburn, or stomach ulcers, such as, esomeprazole (Nexium[®]), lansoprazole (Prevacid[®]), omeprazole (Prilosec[®]), rabeprazole (Aciphex[®]), or pantoprazole (Protonix[®]) must be taken at the same time as Harvoni[®].
- Amiodarone (Cordarone[®], Nexterone[®], Pacerone[®])
- Carbamazepine (Carbatrol[®], Epitol[®], Equetro[®], Tegretol[®])
- Digoxin (Lanoxin[®])
- Efavirenz, emtricitabine, tenofovir disoproxil fumarate (ATRIPLA[®])
- Elvitegravir, cobicistat, emtricitabine, tenofovir disoproxil fumarate (STRIBILD[®])
- Oxycarbazepine (Trileptal[®], Oxtellar XR[®])
- Phenytoin (Dilantin[®], Phenytek[®])
- Phenobarbital (Luminal[®])
- Rifabutin (Mycobutin[®])
- Rifampin (Rifadin[®], Rifamate[®], Rifater[®], Rimactane[®])
- Rifapentine (Priftin[®])
- Rosuvastatin (Crestor[®])
- Simeprevir (Olysio[®])
- St. John's wort (*Hypericum perforatum*) or a product that contains St. John's wort
- Tipranavir (Aptivus[®]) used in combination with ritonavir (Norvir[®])
- Tenofovir disoproxil fumarate (VIREAD[®], TRUVADA[®]) used in combination with atazanavir (Reyataz[®]) and ritonavir (Norvir[®]), darunavir (Prezista[®]) and ritonavir (Norvir[®]), or used in combination with lopinavir and ritonavir (Kaletra[®])

PLEASE NOTE:

You must let your medical, mental health, dental providers, and pharmacist(s) know that you are taking Harvoni[®] prior to starting any new medications. You must let your healthcare

providers know about any new medications you are prescribed before starting them. This includes vitamins and other supplements.

Hepatitis C treatment should not cause pain that requires narcotic pain medication.

BENEFITS OF TREATMENT

Your hepatitis C may respond well to treatment, as determined by a blood test which measures the presence and amount of hepatitis C in the blood. If you have no hepatitis C in your blood 12 weeks **after** the end of treatment, this is considered a “sustained virologic response” and in 99% of persons is a cure. Your chance of achieving a sustained virologic response depends on hepatitis C genotype, how much hepatitis C virus you have in your blood at the beginning of treatment, past treatment response, and how much liver damage you have had prior to treatment.

It is possible that you may develop some serious side effects, which will require you to stop the treatment. You may still benefit from treatment even if it does not get rid of your hepatitis C, as it may slow down the disease. You may choose to stop treatment at any time.

In Clinical Trials:

Persons with genotype 1 who were treatment-naïve (never treated before), did not have cirrhosis and were treated with Harvoni® for 12 weeks had a 99% response (cure) rate. Those who had a baseline viral load of less than 6 million and were treated for 8 weeks had a 97% response rate.

Persons with cirrhosis who were treatment-naïve had a 94% response rate.

Persons without cirrhosis in whom prior treatment failed and were treated for 12 weeks had a 95% response rate.

Persons with cirrhosis in whom prior treatment failed and were treated for 24 weeks had a 100% response rate.

WHOM TO CALL

If you have any questions about treatment, contact your primary care provider at _____.

TREATMENT AGREEMENT

To receive treatment, please review the following statements and initial beside the responses:

_____ I agree not to drink alcohol or use recreational drugs during the treatment.

_____ I have not abused alcohol or other substances (intravenous drugs, cocaine, prescription pain medications) within the last 6 months.

_____ I will tell my provider if I have any serious medical conditions (such as heart disease, high blood pressure, diabetes, high cholesterol, rheumatoid arthritis, or drug addiction), or psychiatric conditions (depression, history of suicide attempts, bipolar disorder, or psychosis).

_____ I am willing to visit the clinic and see a provider on a regular schedule for the entire length of the treatment. If I am unable to attend an appointment, I will let my provider know this ahead of time and I will reschedule my appointment.

_____ I understand that my treatment will be stopped if I cannot attend appointments as required to evaluate my health and well-being during treatment and the effectiveness of treatment.

_____ As a female taking Harvoni®, I will not get pregnant or breastfeed while on treatment. I understand that my treatment will be stopped if I become pregnant.

_____ Not applicable, I am surgically sterile or post-menopausal.

_____ If I have any problems with the medications or side effects that bother me, I will let my provider or nurse know right away.

_____ I understand that my hepatitis C may not respond to treatment.

_____ I understand that my provider can stop my treatment if the provider feels that stopping it is in the best interest of my health and welfare.

_____ I will do my best to take my medications as prescribed by my provider. If I am unable to do so, I will contact my provider.

_____ I will protect myself and others from hepatitis C by not sharing needles, toothbrushes, razors or nail clippers and covering cuts to prevent blood exposure.

My signature below means that I have read this treatment agreement and/or the meaning of the information has been explained to me. I agree to treatment.

Patient's Name (PLEASE PRINT)

Patient's Signature

Date

Provider's Name (PLEASE PRINT)

Provider's Signature/Title

Date

HCV Treatment Symptoms Inventory
(Complete at Weeks 0, 2, 4, and monthly after that)

Are you experiencing any of the following symptoms? Check here if Yes

Feeling excessively tired/fatigued/exhausted	
Trouble Sleeping	
Headache	
Muscle Aches/Pains	
Joint Aches/Pains	
Back pain	
Weakness	
Flu-Like Illness	
Chills	
Fever	
Diarrhea	
Decreased Appetite	
Nausea	
Vomiting	
Weight loss	
Heartburn or upset/sour stomach	
Itching	
Rash/Skin Reactions Describe: _____	
Irritability	
Depression / Anxiety	
Changes in mood/Mood swings	
Feeling forgetful, problems concentrating	
Decreased or blurred vision	
Shortness of breath	
Cough	
Dizziness	
Dry Mouth	
Hair Loss	
Other, specify: _____	
Nurse or Provider to check if yes this week:	
Anemia (Hgb below 10 g/dL)	
Neutropenia (ANC $\leq 0.5 \times 10^9/L$)	
Thrombocytopenia (Plt $< 50 \times 10^9/L$)	
Hypothyroidism/Hyperthyroidism (Specify which)	

Name: _____

Chart #: _____

Weeks of Treatment Completed: _____

Date: _____

Harvoni® (Ledipasvir/Sofosbuvir) 24 week Treatment Checklist

Prior to Treatment

Labs

- Immediately prior: ___ Pregnancy test (if applicable)
Within 1 month: ___ CBC
 ___ CMP (If GFR <30, do not start treatment; consult Liver Disease Specialist)
 ___ PT/INR
Within 3 months: ___ HCV RNA
 ___ Genotype confirmation
Within 6 months: ___ AFP
 ___ TSH
 ___ A1C or Fasting Glucose
 ___ Vitamin D 25OH (treat if deficient)
Within 1 year: ___ HIV screening

Miscellaneous

- ___ Hepatitis A status/screening if not done
___ Hepatitis B status/screening if not done
___ PHQ-9 baseline
___ AUDIT-C
___ Symptoms Inventory baseline

Week 4

- ___ HCV RNA
___ CBC
___ CMP¹
___ Symptoms Inventory
___ Pregnancy test (if applicable)

3 months post treatment

- ___ CBC
___ Liver Function Tests
___ HCV RNA

Weeks 8, 12, 16, & 20

- ___ CBC
___ CMP¹
___ Symptoms Inventory
___ Pregnancy test (if applicable)

Nurse follow-up in clinic or by phone:

- ___ Symptoms Inventory
___ Managing side effects
___ Medication adherence discussion
___ Alcohol intake
___ Birth control reminder
___ Refill reminder

Week 24

- ___ HCV RNA
___ CBC
___ CMP¹
___ Symptoms Inventory
___ Pregnancy test (if applicable)

1- If GFR <30, consult Liver Disease Specialist.

Harvoni® 24 week Lab Tracking Form

General Patient Information

Name: _____
 DOB: ____/____/____
 MRN: _____
 Phone #: _____
 Treatment Start Date: _____

Pre-Treatment Lab Results

HCV RNA: _____
 Genotype: _____ HIV: ____ TSH: ____
 Vit D 25OH: _____ AFP: _____ GFR*: _____
 PT/INR: _____ A1C/Glucose: _____

Medication Regimen

Harvoni® (Ledipasvir 90mg/Sofosbuvir 400mg)
 1 tablet PO daily.
 Do not change dose.

Completed Treatment Week	Lab Date	Hgb	Hct	WBC	PLT	ALT	AST	Alk Phos	Total Bili	Creat/ GFR	PHQ-9 <small>(Specified weeks)</small>	HCV RNA <small>(Specified weeks)</small>	Weight <small>(kg)</small>	Pregnancy Test
Pre-Treatment														
Treatment Start Week 0											PHQ-9	HCV RNA		
<i>optional</i>														
<i>optional</i>														
<i>optional</i>														
Week 4												HCV RNA		
<i>optional</i>														
<i>optional</i>														
Week 8														
<i>optional</i>														
<i>optional</i>														
Week 12												HCV RNA		
<i>optional</i>														
Week 16														
<i>optional</i>														
Week 20														
<i>optional</i>														
Week 24												HCV RNA		
3 months post treatment												HCV RNA		

Labs recommended for each follow up visit: CBC, CMP, pregnancy test (females of childbearing age), and HCV RNA as specified.

***GFR <30** If GFR is <30, do not start treatment; consult with Liver Disease Specialist.