



Liver Disease & Hepatitis Program  
4315 Diplomacy Drive, Anchorage, AK 99508  
Phone: 907-729-1560 Fax: 907-729-1570

Website: <http://www.anthctoday.org/community/hep/index.html>

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<sup>®</sup> (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<sup>®</sup> were 94-100%.
- Option 2 is Viekira Pak<sup>®</sup> (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<sup>®</sup> 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<sup>®</sup> and Viekira Pak<sup>®</sup>/ribavirin were 86-100%.

Genotype 2 and 3 treatment is Sovaldi<sup>®</sup> (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<sup>®</sup>/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<sup>®</sup> (sofosbuvir) plus ribavirin (6-7 pills/day), and a weekly peginterferon injection can be given. In addition to the side effects occurring with Sovaldi<sup>®</sup>/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)

## Sovaldi® (Sofosbuvir) & Ribavirin 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.

The current FDA approved treatment for genotypes 2 and 3 is Sovaldi® (Sofosbuvir) in combination with ribavirin.

### **PREGNANCY & BREASTFEEDING WARNING**

Ribavirin can harm an unborn child or breastfeeding infant. A woman must not get pregnant and a man must not father a child while taking ribavirin or for 6 months after treatment. You must **use 2 forms of birth control** when you take ribavirin and for 6 months after your last dose.

#### **Acceptable Birth Control Methods:**

Birth control pills or other hormone containing birth control  
Male or female condom  
Spermicides (creams, films, foams, gels, and/or suppositories)  
Diaphragm or cervical cap  
Intrauterine device (IUD), Today® vaginal sponge

#### **Unacceptable Birth Control Methods:**

Rhythm method or withdrawal

### **HOW THE TREATMENT PROCESS WORKS**

You will have blood and urine tests.

- These tests will include a pregnancy test for female patients of childbearing age. Urine pregnancy tests will be done monthly during clinic visits. If you are a woman and your treatment includes ribavirin it is recommended that you continue monthly home pregnancy testing for 6 months after treatment and notify your healthcare provider if you become pregnant. Female partners of males whose treatment includes ribavirin should do a monthly home pregnancy test during treatment and for 6 months after treatment completion and notify their health care provider if they become pregnant.
- 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:**

\_\_\_ Sofosbuvir plus ribavirin will be given for 12 weeks for genotype 2.

\_\_\_ Sofosbuvir plus ribavirin will be given for 16 weeks for genotype 2 with cirrhosis or previous treatment experience (have been treated before).

\_\_\_ Sofosbuvir plus ribavirin will be given for 24 weeks for genotype 3.

Treatment with sofosbuvir and ribavirin requires 6 scheduled visits over a 6 month period if you undergo a 12-week treatment course. There will be 7 scheduled visits over 7 months if you do a 16 week treatment course. If you undergo a 24-week treatment course, there are approximately 9 scheduled visits over 9 months.

Your first three visits will be at the start of treatment (week 0) and weeks 2 and 4 after you begin taking the medications. 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**

**Sofosbuvir** is a 400mg tablet. You will take sofosbuvir by mouth once daily with or without food. Store sofosbuvir at room temperature. If you miss a dose of sofosbuvir, take the missed dose as soon as you remember the same day. Do not take more than 1 tablet of sofosbuvir in a day. Take your next dose of sofosbuvir at your regular time the next day.

- Most common side effects are feeling tired, headache, nausea, trouble sleeping, and itching.

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

- Amiodarone (Cordarone<sup>®</sup>, Nexterone<sup>®</sup>, Pacerone<sup>®</sup>)
- Carbamazepine (Carbatrol<sup>®</sup>, Epitol<sup>®</sup>, Equetro<sup>®</sup>, Tegretol<sup>®</sup>)
- Oxycarbazepine (Trileptal<sup>®</sup>, Oxtellar XR<sup>™</sup>)
- Phenytoin (Dilantin<sup>®</sup>, Phenytek<sup>®</sup>)
- Phenobarbital (Luminal<sup>®</sup>)
- Rifabutin (Mycobutin<sup>®</sup>)
- Rifampin (Rifadin<sup>®</sup>, Rifamate<sup>®</sup>, Rifater<sup>®</sup>, Rimactane<sup>®</sup>)
- Rifapentine (Priftin<sup>®</sup>)
- St. John's wort (*Hypericum perforatum*) or a product that contains St. John's wort
- Tipranavir (Aptivus<sup>®</sup>)/Ritonavir

**Ribavirin** is a 200mg capsule or tablet. You will take ribavirin pills twice daily by mouth with food (dose is based on your weight). You should not miss/skip taking any pills. A common side effect is anemia. Anemia is a condition where the blood has a decreased number of red blood cells. This occurs more often in older persons taking ribavirin. Anemia can be serious in patients who have kidney problems. In patients who have coronary artery disease (narrowing of the blood vessels in the heart), anemia may make the problem worse, leading to chest pain or heart attack. If your provider believes you may have coronary artery disease, you will be tested for this and excluded from treatment if it is serious.

- Other common side effects include: headache, trouble sleeping, nausea, vomiting, weakness or lack of energy, shortness of breath, loss of appetite, itching, cough, muscle pain, swelling and pain in your joints (gout), depression, nervousness, and dizziness.
- Studies in animals have shown when ribavirin is given to pregnant females, death of the developing embryo or birth of deformed baby animals may result. It is expected that similar results as seen in the animal studies could occur in humans.

**PLEASE NOTE:**

You must let your medical, mental health, dental providers, and pharmacist(s) know that you are taking sofosbuvir and ribavirin prior to starting any new medications. You must let your healthcare provider 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 Studies:**

Persons with genotype 2 who were treatment-naïve (never treated before) had a  $\geq 95\%$  chance of achieving a sustained virologic response after taking sofosbuvir and ribavirin for 12 weeks. Those with cirrhosis had a response rate of 83%.

Two studies, Fusion and Boson, have looked at extending sofosbuvir and ribavirin treatment. Persons with genotype 2 who were treatment-experienced (previously treated) with cirrhosis and took sofosbuvir with ribavirin for 16 weeks had a response rate of 87% (13 of 15 subjects) in the Boson study and 78% (7 of 9 subjects) in the Fusion study. Those who were treatment-experienced and did not have cirrhosis had a response rate of 92% (24 of 26 subjects) in the Fusion study.

Persons with genotype 3 who were treatment-naïve, regardless of cirrhosis status had a  $\geq 92\%$  response rate after taking sofosbuvir and ribavirin for 24 weeks. For those who were treatment-experienced, the response rate was 77%. For those who were treatment-experienced with cirrhosis, the response rate was 60%.

**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, or drug addiction), or psychiatric conditions (depression, history of suicide attempts, bipolar disorder, or psychosis). Failure to tell my provider about my medical and psychiatric conditions can have life-threatening consequences during this treatment.

\_\_\_\_\_ 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.

\_\_\_\_\_ I will use 2 acceptable methods of birth control during treatment and for 6 months after I stop treatment (see lists, page 1).

\_\_\_\_\_ As a female, I understand that I cannot be pregnant or breastfeeding during the treatment and for 6 months after treatment. I understand that my treatment will be stopped if I become pregnant. \_\_\_\_\_ Not applicable, I am surgically sterile or post-menopausal.

\_\_\_\_\_ As a male taking ribavirin I understand that I should not father a child during treatment and for 6 months after treatment.

\_\_\_\_\_ 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 the treatment.**

---

**Patient's Name (PLEASE PRINT)**

**Patient's Signature**

**Date**

---

**Provider's Name & Title (PLEASE PRINT)**

**Provider's Signature**

**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: _____	
<b>Nurse or Provider to check if yes this week:</b>	
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: \_\_\_\_\_

# Sovaldi® (Sofosbuvir) & Ribavirin 24 week Treatment Checklist

## Prior to Treatment

### Labs

- Immediately prior:  Pregnancy test (if applicable)  
 Uric Acid
- 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 2

- CBC  
 CMP<sup>1</sup>  
 Symptoms Inventory

## Week 4

- HCV RNA  
 CBC  
 CMP<sup>1</sup>  
 Symptoms Inventory  
 Pregnancy test (if applicable)

## Weeks 8, 12, 16, & 20

- CBC  
 CMP<sup>1</sup>  
 Symptoms Inventory  
 Pregnancy test (if applicable)

## Week 24

- HCV RNA  
 CBC  
 CMP<sup>1</sup>  
 Symptoms Inventory  
 Pregnancy test (if applicable)

## 3 months post treatment

- CBC  
 Liver Function Tests  
 HCV RNA  
 PHQ-9

## Nurse follow-up in clinic or by phone:

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

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

Sovaldi® (Sofosbuvir) & Ribavirin 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**

1- Sofosbuvir 400mg 1 tablet PO daily. Do not change dose.  
 2- Ribavirin: \_\_\_\_\_ mg/day PO divided into 2 doses. Take with breakfast & dinner.  
 ≥75kg = 1200mg/day <75kg = 1000mg/day  
 \*\*Dose Reduction/Date: \_\_\_\_\_/\_\_\_\_\_  
 \*\*Additional Dose Change/Date: \_\_\_\_\_/\_\_\_\_\_  
 \*\*Consult ANTHC Liver Disease & Hepatitis Specialists for further guidance about dose changes.

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 (kg)	Pregnancy Test
Pre-Treatment														
<b>Treatment Start Week 0</b>											PHQ-9	HCV RNA		
<i>optional</i>														
<b>Week 2</b>														
<i>optional</i>														
<b>Week 4</b>												HCV RNA		
<i>optional</i>														
<i>optional</i>														
<b>Week 8</b>														
<i>optional</i>														
<i>optional</i>														
<b>Week 12</b>											PHQ-9	HCV RNA		
<i>optional</i>														
<b>Week 16</b>														
<i>optional</i>														
<b>Week 20</b>														
<i>optional</i>														
<b>Week 24</b>											PHQ-9	HCV RNA		
3 months post treatment											PHQ-9	HCV RNA		

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

**Please note the following critical values.** These may require modification of dosage or discontinuation of causative med. Contact ANTHC Liver Disease Specialists with any questions.

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

**Hgb <10.0 gm/dL** If hemoglobin drops below 10, reduce ribavirin dose to 600mg (refer to Sofosbuvir package insert). **If hemoglobin <8.5, hold ribavirin & consult ANTHC Liver Disease Specialists.**

**GFR <50** If GFR is <50, decrease ribavirin dose (refer to ribavirin package insert) and consult ANTHC Liver Disease Specialists.

**PLTs <50 K/uL** If platelet count drops below 50, consult ANTHC Liver Disease Specialists.

Any questions, contact 907-729-1560 and ask to speak with a Liver Disease Specialist.

ANTHC Liver Disease & Hepatitis Program 11/2014