

Clinical Policy: Ledipasvir/Sofosbuvir (Harvoni)

Reference Number: PA.CP.PHAR.279

Effective Date: 08/17

Last Review Date: 09/17

[Revision Log](#)

Description

Ledipasvir/sofosbuvir (Harvoni[®]) is a fixed-dose combination of ledipasvir, a hepatitis C virus (HCV) NS5A inhibitor, and sofosbuvir, an HCV nucleotide analog NS5B polymerase inhibitor.

FDA-Approved Indication

Harvoni is indicated for the treatment of chronic hepatitis C virus (HCV) in:

- Adults with genotype 1, 4, 5, or 6 infection without cirrhosis or with compensated cirrhosis;
- Adults with genotype 1 infection with decompensated cirrhosis, in combination with ribavirin;
- Adults with genotype 1 or 4 infection who are liver transplant recipients without cirrhosis or with compensated cirrhosis, in combination with ribavirin;
- Pediatric patients 12 years of age and older or weighing at least 35 kg with genotype 1, 4, 5, or 6 without cirrhosis or with compensated cirrhosis.

Policy/Criteria

It is the policy of Pennsylvania Health and Wellness[®] that Harvoni is **medically necessary** when the following criteria are met:

I. Initial Approval Criteria

*** Provider must submit documentation (including office chart notes and lab results) supporting that member has met all approval criteria ***

A. Chronic Hepatitis C Infection (must meet all):

1. Age \geq 12 years or body weight \geq 35kg;
2. Diagnosis of chronic hepatitis C virus (HCV) infection as evidenced by detectable HCV ribonucleic acid (RNA) levels;
3. Confirmed HCV genotype is 1, 4, 5 or 6;
4. If actively abusing alcohol or IV drugs, or has a history of abuse, has documentation of prescriber counseling regarding the risks of alcohol or IV drug abuse and an offer of a referral for substance use disorder treatment
5. Has all of the following:
 - a. Documented quantitative HCV RNA at baseline that was tested within the past 3 months.
 - b. Dose not have a life expectancy of less than 12 months due to non-liver-related comorbid conditions.
 - c. Has correct or addressed the causes of non-adherence to a previously prescribed Hepatitis C treatment regimen if the recipient has a history of failed treatment due to non-adherence.
 - d. Had all potential drug interactions addressed by the prescriber
6. Prescribed regimen is consistent with an FDA or AASLD-IDSa recommended regimen (*see Section V Dosage and Administration for reference*);

7. If member is ≥ 18 years of age and member is without cirrhosis or with compensated cirrhosis (Child-Pugh A): Contraindication or intolerance to Mavyret; or Mavyret is not AASLD recommended.
8. Has documented completion of
 - i. Hepatitis B immunization series or Hepatitis B screening (sAb/sAg and cAb/cAg) AND
 - ii. If there is detectable HBV DNA, will be treated for Hepatitis B or if negative for hepatitis BsAb, is being vaccinated against Hepatitis B. AND
 - iii. Has a documented HIV screening (HIV Ag/Ab) and if confirmed positive by HIV-1/HIV-2 differentiation immunoassay: Is being treated for HIV or is not being treated for HIV and the medical record documents the rationale for not being treated
9. Has a documented commitment to adherence with the planned course of treatment
10. If prescribed with ribavirin, member has none of the following contraindications:
 - a. Pregnancy or possibility of pregnancy - member or partner;
 - b. Hemoglobin < 10 g/dL.

Approval duration: up to 24 weeks (*Approved duration should be consistent with a regimen in Section V Dosage and Administration)

- B. Other diagnoses/indications:** Refer to PA.CP.PHAR.57 - Global Biopharm Policy if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized).

II. Continued Approval

**** Provider must submit documentation (including office chart notes and lab results) supporting that member has met all approval criteria ****

A. Chronic Hepatitis C Infection (must meet all):

1. Currently receiving medication via Pennsylvania Health and Wellness benefit or member has previously met all initial approval criteria or the Continuity of Care policy (PA.LTSS.PHAR.01) applies;
2. Dose does not exceed ledipasvir/sofosbuvir 90 mg/400 mg per day (1 tablet/day).

Approval duration: up to a total of 24 weeks*

(*Approved duration should be consistent with a regimen in Section V Dosage and Administration)

B. Other diagnoses/indications

1. Refer to PA.CP.PHAR.57 if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized).

III. Diagnoses/Indications for which coverage is NOT authorized:

- A. Non-FDA approved indications, which are not addressed in this policy, unless there is sufficient documentation of efficacy and safety according to the off label use policy – PA.CP.PHAR.57 or evidence of coverage documents.

IV. Appendices

Appendix A: Abbreviation Key

ALT: alanine aminotransferase	HCC: hepatocellular carcinoma
APRI: AST to platelet ratio	HCV: hepatitis C virus
AASLD: American Association for the Study of Liver Diseases	IDSA: Infectious Diseases Society of America
CHC: chronic hepatitis C	MRE: magnetic resonance elastography
FDA: Food and Drug Administration	NS3/4A, NS5A/B: nonstructural protein
CTP: Child Turcotte Pugh	Peg-IFN: pegylated interferon
FIB-4: Fibrosis-4 index	PI: protease inhibitor
HBeAg: hepatitis B virus envelope antigen	RBV: ribavirin
HBV: hepatitis B virus	RNA: ribonucleic acid

Appendix B: General Information

- Hepatitis B Reactivation is a Black Box Warning for all direct-acting antiviral drugs for the treatment of HCV. The provider must provide either:
 - Documentation of absence of concurrent HBV infection as evidenced by laboratory values showing absence of hepatitis B virus envelope antigen (HBeAg) and HBV DNA;
 - Documentation that HBV co-infected patient may not be candidates for therapy as evidenced by one of the following:
 - Absence of HBeAg, HBV DNA less than 2,000 international units/mL, and alanine aminotransferase (ALT) level within 1 to 2 times the upper limit of normal;
 - HBeAg-positive and HBV DNA greater than 1,000,000 international units/mL and ALT level within 1 to 2 times the upper limit of normal;
 - Documentation that concurrent HBV infection is being treated (e.g., tenofovir alafenamide, adefovir, entecavir), unless contraindicated or clinically significant adverse effects are experienced.
- The 2016 AASLD/IDSA treatment guideline for HBV consider ALT levels <30 U/L for men and <19 U/L for women as upper limits of normal.
- The 2016 AASLD/IDSA treatment guideline for HBV recommend adults with compensated cirrhosis, even with low levels of viremia (<2,000 IU/mL) be treated with antiviral therapy to reduce the risk of decompensation, regardless of ALT level. The recommendation extends to adults with decompensated cirrhosis be treated with antiviral therapy indefinitely regardless of HBV DNA level, HBeAg status, or ALT level to decrease the risk of worsening liver-related complications.

Appendix C: Direct-Acting Antivirals for Treatment of HCV Infection

Brand Name	Drug Class				
	NS5A Inhibitor	Nucleotide Analog NS5B Polymerase Inhibitor	Non-Nucleoside NS5B Palm Polymerase Inhibitor	NS3/4A Protease Inhibitor (PI)**	CYP3A Inhibitor
Daklinza	Daclatasvir				
Epclusa*	Velpatasvir	Sofosbuvir			
Harvoni*	Ledipasvir	Sofosbuvir			
Olysio				Simeprevir	
Sovaldi		Sofosbuvir			
Technivie*	Ombitasvir			Paritaprevir	Ritonavir
Viekira XR/PAK*	Ombitasvir		Dasabuvir	Paritaprevir	Ritonavir
Zepatier*	Elbasvir			Grazoprevir	

*Combination drugs

**Additional PIs no longer recommended: Victrelis (boceprevir), Incivek (telaprevir)

V. Dosage and Administration

- a. **AASLD/IDSA treatment guidelines for chronic hepatitis C infection are updated at irregular intervals; refer to the most updated AASLD/IDSA guideline for most accurate treatment regimen.*

Indication	Dosing Regimen	Maximum Dose	Reference
Genotype 1 CHC:	<p>400 mg/90 mg by PO QD</p> <p>Treatment-naïve adult patients without cirrhosis AND whose HCV viral load is less than 6 million IU/mL for 8 weeks †</p> <p>Treatment-naïve adult patients without cirrhosis AND whose HCV viral load is greater than or equal to 6 million IU/mL for 12 weeks</p> <p>Treatment-experienced with peg-IFN/ RBV adult patients without cirrhosis for 12 weeks</p> <p>Treatment-experienced with NS3 PI*/peg-IFN/RBV adult patient without cirrhosis for 12 weeks</p> <p>Treatment-experienced (with NS3 PI*/peg-IFN/RBV or peg-IFN/RBV) adult patients with compensated cirrhosis: Harvoni plus weight-based</p>	Harvoni (sofosbuvir 400mg / ledipasvir 90mg): 1 tablet per day	<p>1) FDA-approved labeling</p> <p>2) † AASLD-IDSA https://www.hcvguidelines.org/</p>

Indication	Dosing Regimen	Maximum Dose	Reference
	<p>RBV for 12 weeks Or without RBV for 24 weeks † if RBV ineligible</p> <p>Treatment-experienced with sofosbuvir/RBV with or without peg-IFN without cirrhosis: Harvoni plus weight-based RBV for 12 weeks</p> <p>Treatment-experienced with sofosbuvir/RBV with or without peg-IFN with compensated cirrhosis: Harvoni plus weight-based RBV for 24 weeks‡</p>		
<p>Genotype 1, 4‡, 5‡, or 6‡ CHC with decompensated cirrhosis: Adult patients who may or may not be candidates for liver transplantation, including those with hepatocellular carcinoma</p>	<p>400 mg/90 mg PO QD plus low initial dose of RBV (600mg, increased as tolerated) for 12 weeks Or without RBV for 24 weeks if RBV ineligible</p>	<p>Harvoni (sofosbuvir 400mg / ledipasvir 90mg): 1 tablet per day</p>	<p>1) FDA-approved labeling 2) ‡ AASLD- IDSA https://www.hcvguidelines.org/</p>
<p>Genotype 1, 4, 5, or 6 CHC with decompensated cirrhosis: Adult patients in whom a previous sofosbuvir-containing regimen has failed‡</p>	<p>400 mg/90 mg PO QD with low initial dose of RBV (600mg, increased as tolerated) for 24 weeks</p>	<p>Harvoni (sofosbuvir 400mg / ledipasvir 90mg): 1 tablet per day</p>	<p>AASLD-IDSA https://www.hcvguidelines.org/</p>
<p>Genotype 1 or 4 CHC and post-liver transplantation: Treatment-naïve and treatment-experienced adult patients with or without compensated cirrhosis</p>	<p>400 mg/90 mg PO QD plus RBV for 12 weeks</p>	<p>Harvoni (sofosbuvir 400mg / ledipasvir 90mg): 1 tablet per day</p>	<p>1) FDA-approved labeling 2) AASLD-IDSA https://www.hcvguidelines.org/</p>
<p>Genotype 1 or 4 CHC and post-liver transplantation, who are intolerant to</p>	<p>400 mg/90 mg PO QD for 24 weeks</p>	<p>Harvoni (sofosbuvir 400mg / ledipasvir</p>	<p>AASLD-IDSA https://www.hcvguidelines.org/</p>

Indication	Dosing Regimen	Maximum Dose	Reference
RBV or RBV ineligible: Treatment-naïve adult patients with HCV in the allograft, including compensated cirrhosis		90mg): 1 tablet per day	
Genotype 1 or 4 CHC and post-liver transplantation: Treatment-naïve and treatment-experienced adult patients with decompensated cirrhosis	400 mg/90 mg PO QD plus low initial dose RBV (600mg, increased as tolerated) for 12 weeks	Harvoni (sofosbuvir 400mg / ledipasvir 90mg): 1 tablet per day	AASLD-IDSA https://www.hcvguidelines.org/
Genotype 1, 4, 5 or 6 CHC with HIV co-infection: Treatment-naïve adult patients without cirrhosis	400 mg / 90 mg PO QD for 12 weeks	Harvoni (sofosbuvir 400mg / ledipasvir 90mg): 1 tablet per day	1) FDA-approved labeling 2) AASLD-IDSA https://www.hcvguidelines.org/
Genotype 4, 5, or 6 CHC: Treatment-naïve adult patients with or without compensated cirrhosis	400 mg / 90 mg PO QD for 12 weeks	Harvoni (sofosbuvir 400mg / ledipasvir 90mg): 1 tablet per day	1) FDA-approved labeling 2) AASLD-IDSA https://www.hcvguidelines.org/
Genotype 4 CHC: Treatment-experienced adult patients without compensated cirrhosis	400 mg / 90 mg PO QD for 12 weeks	Harvoni (sofosbuvir 400mg / ledipasvir 90mg): 1 tablet per day	1) FDA-approved labeling 2) AASLD-IDSA https://www.hcvguidelines.org/
Genotype 4 CHC: Treatment-experienced adult patients with compensated cirrhosis	400 mg / 90 mg PO QD plus weight-based RBV for 12 weeks Or without RBV for 24 weeks if RBV ineligible†	Harvoni (sofosbuvir 400mg / ledipasvir 90mg): 1 tablet per day	1) FDA-approved labeling 2) AASLD-IDSA https://www.hcvguidelines.org/

Indication	Dosing Regimen	Maximum Dose	Reference
			www.hcvguidelines.org/
Genotype 5 or 6 CHC: Treatment-experienced adult patients with or without compensated cirrhosis	400 mg / 90 mg PO QD for 12 weeks	Harvoni (sofosbuvir 400mg / ledipasvir 90mg): 1 tablet per day	1) FDA-approved labeling 2) AASLD-IDSAs https://www.hcvguidelines.org/

Indication: Pediatric patients (≥ 12 years or weighing at least 35 kg) with chronic HCV infection

Indication	Dosing Regimen	Maximum Dose	Reference
Genotype 1 CHC:	Treatment naïve pediatric patients (≥12 years of >35 kg) without cirrhosis regardless of baseline viral load for 12 weeks Treatment naïve adult or pediatric (≥12 years of >35 kg) patients with compensated cirrhosis for 12 weeks Treatment-experienced with peg-IFN/RBV pediatric (≥12 years of ≥35 kg) without cirrhosis for 12 weeks Treatment-experienced pediatric patients (≥12 years of >35 kg) with compensated cirrhosis for 24 weeks	Harvoni (sofosbuvir 400mg / ledipasvir 90mg): 1 tablet per day	FDA-approved labeling
Genotype 4, 5, or 6 CHC: Treatment-naïve or treatment-experienced pediatric (≥12 years of ≥35 kg) patients with or without compensated cirrhosis	400 mg / 90 mg PO QD for 12 weeks	Harvoni (sofosbuvir 400mg / ledipasvir 90mg): 1 tablet per day	FDA-approved labeling

*AASLD/IDSA treatment guidelines for chronic hepatitis C infection are updated at irregular intervals; refer to the most updated AASLD/IDSA guideline for most accurate treatment regimen.

‡ Off-label, AASLD-IDSAs guideline-supported dosing regimen

VI. Product Availability

Tablet: 400 mg sofosbuvir with 90 mg ledipasvir

--	--	--

References

1. Harvoni Prescribing Information. Foster City, CA: Gilead Sciences, Inc.; April 2017. Available at http://www.gilead.com/~media/Files/pdfs/medicines/liver-disease/harvoni/harvoni_pi.pdf. Accessed May 2017
2. American Association for the Study of Liver Diseases/ Infectious Disease Society of America (AASLD-IDSA). Recommendations for testing, managing, and treating hepatitis C. <http://www.hcvguidelines.org>. Accessed May, 2017.
3. Bonder A, Afdhal N. Utilization of FibroScan in clinical practice. *Curr Gastroenterol Rep*. 2014; 16(372): 1-7. DOI 10.1007/s11894-014-0372-6.
4. Halfon P, Bourliere M, Deydier R, et al. Independent prospective multicenter validation of biochemical markers (Fibrotest–Actitest) for the prediction of liver fibrosis and activity in patients with chronic hepatitis C: The Fibropaca study. *Am J Gastroenterol*. 2006; 101: 547-555. DOI: 10.1111/j.1572-0241.2006.0411.x
5. Hepatitis C Virus (HCV) FibroSure. Laboratory Corporation of America Holdings and Lexi-Comp, Inc. Available at <https://www.labcorp.com>. 2016. Accessed July 15, 2016.
6. Hepatitis C Virus (HCV) FibroTest-ActiTest Panel. Nichols Institute/Quest Diagnostics. Available at http://education.questdiagnostics.com/physician_landing_page. 2016. Accessed July 15, 2016.
7. Hepatitis C Virus (HCV) FIBROSpect II. Prometheus Therapeutics and Diagnostics. Available at http://www.prometheuslabs.com/Resources/Fibrospect/Fibrospect_II_Product_Detail_Sheet_FIB16005_04-16.pdf. April 2016. Accessed July 15, 2016.
8. Hsieh YY, Tung SY, Lee K, et al. Routine blood tests to predict liver fibrosis in chronic hepatitis C. *World J Gastroenterol*. February 28, 2012; 18(8): 746-53. doi: 10.3748/wjg.v18.i8.746.
9. Bruix J and Sherman M. Management of hepatocellular carcinoma: An update. AASLD Practice Guideline. *Hepatology*. 2011; 53(3): 1020-22.
10. Terrault NA, Bzowej NH, Chang KM, et al. AASLD Guidelines for Treatment of Chronic Hepatitis B. *Hepatology* 2016; 62(1): 261-283.