HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use $\mathsf{HARVONI}^{\otimes}$ safely and effectively. See full prescribing information for HARVONI.

 ${\rm HARVONI}^{\circledcirc}$ (ledipasvir and sofosbuvir) tablets, for oral use Initial U.S. Approval: 2014

WARNING: RISK OF HEPATITIS B VIRUS REACTIVATION IN PATIENTS COINFECTED WITH HCV AND HBV

See full prescribing information for complete boxed warning.

Hepatitis B virus (HBV) reactivation has been reported, in some cases resulting in fulminant hepatitis, hepatic failure, and death. (5.1)

RECENT MAJOR CHANGES			
Boxed Warning Indications and Usage (1)	02/2017 04/2017		
Dosage and Administration (2.1) Dosage and Administration (2.3) Warnings and Precautions (5.1)	02/2017 04/2017 02/2017		
Waitings and Frecautions (5.1)	02/2017		

---INDICATIONS AND USAGE----

HARVONI is a fixed-dose combination of ledipasvir, a hepatitis C virus (HCV) NS5A inhibitor, and sofosbuvir, an HCV nucleotide analog NS5B polymerase inhibitor, and 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. (1)

----DOSAGE AND ADMINISTRATION-----

- Testing Prior to the Initiation of Therapy: Test all patients for HBV infection by measuring HBsAg and anti-HBc. (2.1)
- Recommended adult and pediatric dosage: One tablet (90 mg of ledipasvir and 400 mg of sofosbuvir) taken orally once daily with or without food. (2.2, 2.3)
- HCV/HIV-1 coinfection: For adult and pediatric patients with HCV/HIV-1 coinfection, follow the dosage recommendations in the tables below, respectively. (2.2, 2.3)
- If used in combination with ribavirin, follow the recommendations for ribavirin dosing and dosage modifications. (2.2)
- Recommended adult treatment regimen and duration: (2.2)

	Adult Patient Population	Regimen and Duration
	Treatment-naïve without cirrhosis or with compensated cirrhosis (Child-Pugh A)	HARVONI 12 weeks
Genotype 1	Treatment-experienced without cirrhosis	HARVONI 12 weeks
	Treatment-experienced with compensated cirrhosis (Child-Pugh A)	HARVONI 24 weeks
	Treatment-naïve and treatment- experienced with decompensated cirrhosis (Child-Pugh B or C)	HARVONI + ribavirin 12 weeks
Genotype 1 or 4	Treatment-naïve and treatment- experienced liver transplant recipients without cirrhosis, or with compensated cirrhosis (Child-Pugh A)	HARVONI + ribavirin 12 weeks
Genotype	Treatment-naïve and treatment-	HARVONI

4, 5, or 6	experienced without cirrhosis or with	12 weeks
	compensated cirrhosis (Child-Pugh A)	

 Recommended treatment duration for pediatric patients 12 years of age and older or weighing at least 35 kg. (2.3)

	Pediatric Patient Population 12 Years of Age and Older or Weighing at Least 35 Kg	Regimen and Duration
	Treatment-naïve without cirrhosis or with compensated cirrhosis (Child-Pugh A)	HARVONI 12 weeks
Genotype 1	Treatment-experienced without cirrhosis	HARVONI 12 weeks
	Treatment-experienced with compensated cirrhosis (Child-Pugh A)	HARVONI 24 weeks
Genotype 4, 5, or 6	Treatment-naïve and treatment- experienced, without cirrhosis or with compensated cirrhosis (Child-Pugh A)	HARVONI 12 weeks

 A dosage recommendation cannot be made for patients with severe renal impairment or end stage renal disease. (2.4)

----DOSAGE FORMS AND STRENGTHS-

Tablets: 90 mg ledipasvir and 400 mg sofosbuvir. (3)

---CONTRAINDICATIONS-----

If used in combination with ribavirin, all contraindications to ribavirin also apply to HARVONI combination therapy. (4)

---WARNINGS AND PRECAUTIONS----

- Risk of Hepatitis B Virus Reactivation: Test all patients for evidence
 of current or prior HBV infection before initiation of HCV treatment.
 Monitor HCV/HBV coinfected patients for HBV reactivation and
 hepatitis flare during HCV treatment and post-treatment follow-up.
 Initiate appropriate patient management for HBV infection as
 clinically indicated. (5.1)
- Bradycardia with amiodarone coadministration: Serious symptomatic bradycardia may occur in patients taking amiodarone, particularly in patients also receiving beta blockers, or those with underlying cardiac comorbidities and/or advanced liver disease.
 Coadministration of amiodarone with HARVONI is not recommended. In patients without alternative, viable treatment options, cardiac monitoring is recommended. (5.2, 6.2, 7.2)

---ADVERSE REACTIONS----

The most common adverse reactions (incidence greater than or equal to 10%, all grades) observed with treatment with HARVONI were fatigue, headache and asthenia. (6.1)

To report SUSPECTED ADVERSE REACTIONS, contact Gilead Sciences, Inc. at 1-800-GILEAD-5 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

----DRUG INTERACTIONS----

- Coadministration with amiodarone may result in serious symptomatic bradycardia. Use of HARVONI with amiodarone is not recommended. (5.2, 6.2, 7.2)
- P-gp inducers (e.g., rifampin, St. John's wort): May alter concentrations of ledipasvir and sofosbuvir. Use of HARVONI with P-gp inducers is not recommended. (5.3, 7, 12.3)
- Frequent monitoring of international normalized ratio (INR) values is recommended in patients receiving warfarin. (7.1)
- Consult the full prescribing information prior to use for potential drug interactions. (5.2, 5.3, 7, 12.3)

See 17 for PATIENT COUNSELING INFORMATION and FDA-approved patient labeling.

Revised: 11/2017



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FULL PRESCRIBING INFORMATION

WARNING: RISK OF HEPATITIS B VIRUS REACTIVATION IN PATIENTS COINFECTED WITH HCV AND HBV

Test all patients for evidence of current or prior hepatitis B virus (HBV) infection before initiating treatment with HARVONI. HBV reactivation has been reported in HCV/HBV coinfected patients who were undergoing or had completed treatment with HCV direct acting antivirals and were not receiving HBV antiviral therapy. Some cases have resulted in fulminant hepatitis, hepatic failure, and death. Monitor HCV/HBV coinfected patients for hepatitis flare or HBV reactivation during HCV treatment and post-treatment follow-up. Initiate appropriate patient management for HBV infection as clinically indicated [see Warnings and Precautions (5.1)].

1 INDICATIONS AND USAGE

Adult Patients:

HARVONI is indicated for the treatment of adult patients with chronic hepatitis C virus (HCV) [see Dosage and Administration (2.2) and Clinical Studies (14)]:

- genotype 1, 4, 5, or 6 infection without cirrhosis or with compensated cirrhosis
- genotype 1 infection with decompensated cirrhosis, for use in combination with ribavirin
- genotype 1 or 4 infection who are liver transplant recipients without cirrhosis or with compensated cirrhosis, for use in combination with ribavirin

Pediatric Patients:

HARVONI is indicated for the treatment of pediatric patients 12 years of age and older or weighing at least 35 kg with HCV genotype 1, 4, 5, or 6 infection without cirrhosis or with compensated cirrhosis [see Dosage and Administration (2.3) and Clinical Studies (14.6)].

2 DOSAGE AND ADMINISTRATION

2.1 Testing Prior to the Initiation of Therapy

Test all patients for evidence of current or prior HBV infection by measuring hepatitis B surface antigen (HBsAg) and hepatitis B core antibody (anti-HBc) before initiating HCV treatment with HARVONI [see Warnings and Precautions (5.1)].

2.2 Recommended Dosage in Adults

The recommended dosage of HARVONI is one tablet (90 mg ledipasvir and 400 mg sofosbuvir) taken orally once daily with or without food [see Clinical Pharmacology (12.3)].

Relapse rates are affected by baseline host and viral factors and differ between treatment durations for certain subgroups [see Clinical Studies (14)].



Table 1 shows the recommended HARVONI treatment regimen and duration based on patient population.

For patients with HCV/HIV-1 coinfection, follow the dosage recommendations in Table 1 [see Clinical Studies (14)]. Refer to Drug Interactions (7) for dosage recommendations for concomitant HIV-1 antiviral drugs.

Table 1 Recommended Treatment Regimen and Duration for HARVONI in Adult Patients with Genotype 1, 4, 5, or 6 HCV

	Patient Population	Treatment Regimen and Duration
Genotype 1	Treatment-naïve without cirrhosis or with compensated cirrhosis (Child-Pugh A)	HARVONI 12 weeks [*]
	Treatment-experienced** without cirrhosis	HARVONI 12 weeks
	Treatment-experienced** with compensated cirrhosis (Child-Pugh A)	HARVONI 24 weeks [†]
	Treatment-naïve and treatment- experienced** with decompensated cirrhosis (Child-Pugh B or C)	HARVONI + ribavirin [‡] 12 weeks
Genotype 1 or 4	Treatment-naïve and treatment- experienced** liver transplant recipients without cirrhosis, or with compensated cirrhosis (Child-Pugh A)	HARVONI + ribavirin [§] 12 weeks
Genotype 4, 5, or 6	Treatment-naïve and treatment- experienced**, without cirrhosis or with compensated cirrhosis (Child-Pugh A)	HARVONI 12 weeks

^{*} HARVONI for 8 weeks can be considered in treatment-naïve genotype 1 patients without cirrhosis who have pretreatment HCV RNA less than 6 million IU/mL [see Clinical Studies (14.2)].

For further information on ribavirin dosing and dosage modifications, refer to the ribavirin prescribing information [see Clinical Studies (14.5)].



^{**}Treatment-experienced patients have failed a peginterferon alfa + ribavirin based regimen with or without an HCV protease inhibitor.

[†] HARVONI + ribavirin for 12 weeks can be considered in treatment-experienced genotype 1 patients with cirrhosis who are eligible for ribavirin [see Clinical Studies (14.2)]. See footnote § for ribavirin dosage recommendations.

[‡] In patients with decompensated cirrhosis, the starting dosage of ribavirin is 600 mg and can be titrated up to 1000 mg for patients <75 kg and 1200 mg for those ≥75 kg in two divided doses with food. If the starting dosage of ribavirin is not well tolerated, the dosage should be reduced as clinically indicated based on hemoglobin levels.

[§] The daily dosage of ribavirin is weight-based (1000 mg for patients <75 kg and 1200 mg for those ≥75 kg) administered orally in two divided doses with food.

2.3 Recommended Dosage in Pediatric Patients 12 Years of Age and Older or Weighing at Least 35 kg

The recommended dosage of HARVONI in pediatric patients 12 years of age and older or weighing at least 35 kg is one tablet (90 mg ledipasvir and 400 mg sofosbuvir) taken orally once daily with or without food for 12 weeks [see Clinical Pharmacology (12.3) and Clinical Studies (14.6)].

Table 2 shows the recommended HARVONI duration based on pediatric patient population.

For patients with HCV/HIV-1 coinfection, follow the dosage recommendations in Table 2 [see Use in Specific Populations (8.4)]. Refer to Drug Interactions (7) for dosage recommendations for concomitant HIV-1 antiviral drugs.

Table 2 Recommended Regimen and Duration for HARVONI in Pediatric Patients 12 Years of Age or Older or Weighing at Least 35 kg with Genotype 1, 4, 5, or 6 HCV without Cirrhosis or with Compensated Cirrhosis

	Patient Population	Treatment Regimen and Duration
	Treatment-naïve without cirrhosis or with compensated cirrhosis (Child-Pugh A)	HARVONI 12 weeks
Genotype 1	Treatment-experienced ^a without cirrhosis	HARVONI 12 weeks
	Treatment-experienced ^a with compensated cirrhosis (Child-Pugh A)	HARVONI 24 weeks
Genotype 4, 5, or 6	Treatment-naïve and treatment- experienced ^a without cirrhosis or with compensated cirrhosis (Child-Pugh A)	HARVONI 12 weeks

a. Treatment-experienced patients have failed an interferon based regimen with or without ribavirin.

2.4 Severe Renal Impairment and End Stage Renal Disease

No dosage recommendation can be given for patients with severe renal impairment (estimated Glomerular Filtration Rate [eGFR] less than 30 mL/min/1.73 m²) or with end stage renal disease (ESRD) due to higher exposures (up to 20-fold) of the predominant sofosbuvir metabolite [see Use in Specific Populations (8.6) and Clinical Pharmacology (12.3)].

3 DOSAGE FORMS AND STRENGTHS

HARVONI is available as an orange colored, diamond shaped, film-coated tablet debossed with "GSI" on one side and "7985" on the other side of the tablet. Each tablet contains 90 mg ledipasvir and 400 mg sofosbuvir.



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