

**HIGHLIGHTS OF PRESCRIBING INFORMATION**

These highlights do not include all the information needed to use HARVONI® safely and effectively. See full prescribing information for HARVONI.

HARVONI® (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	02/2017
Indications and Usage (1)	04/2017
Dosage and Administration (2.1)	02/2017
Dosage and Administration (2.3)	04/2017
Warnings and Precautions (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
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	Treatment-naïve and treatment-	HARVONI

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

- 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
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
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 coinfecting 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

---

**FULL PRESCRIBING INFORMATION: CONTENTS\***

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

**1 INDICATIONS AND USAGE**

**2 DOSAGE AND ADMINISTRATION**

- 2.1 Testing Prior to the Initiation of Therapy
- 2.2 Recommended Dosage in Adults
- 2.3 Recommended Dosage in Pediatric Patients 12 Years of Age and Older or Weighing at Least 35 kg
- 2.4 Severe Renal Impairment and End Stage Renal Disease

**3 DOSAGE FORMS AND STRENGTHS**

**4 CONTRAINDICATIONS**

**5 WARNINGS AND PRECAUTIONS**

- 5.1 Risk of Hepatitis B Virus Reactivation in Patients Coinfected with HCV and HBV
- 5.2 Serious Symptomatic Bradycardia When Coadministered with Amiodarone
- 5.3 Risk of Reduced Therapeutic Effect Due to Use with P-gp Inducers
- 5.4 Risks Associated with Ribavirin Combination Treatment

**6 ADVERSE REACTIONS**

- 6.1 Clinical Trials Experience
- 6.2 Postmarketing Experience

**7 DRUG INTERACTIONS**

- 7.1 Potential for Drug Interaction
- 7.2 Established and Potentially Significant Drug Interactions
- 7.3 Drugs without Clinically Significant Interactions with HARVONI

**8 USE IN SPECIFIC POPULATIONS**

- 8.1 Pregnancy
- 8.2 Lactation
- 8.3 Females and Males of Reproductive Potential
- 8.4 Pediatric Use
- 8.5 Geriatric Use
- 8.6 Renal Impairment
- 8.7 Hepatic Impairment

**10 OVERDOSAGE**

**11 DESCRIPTION**

**12 CLINICAL PHARMACOLOGY**

- 12.1 Mechanism of Action
- 12.2 Pharmacodynamics
- 12.3 Pharmacokinetics
- 12.4 Microbiology

**13 NONCLINICAL TOXICOLOGY**

- 13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

**14 CLINICAL STUDIES**

- 14.1 Description of Clinical Trials
- 14.2 Clinical Trials in Subjects with Genotype 1 HCV
- 14.3 Clinical Trials in Subjects with Genotype 4, 5, or 6 HCV
- 14.4 Clinical Trials in Subjects Coinfected with HCV and HIV-1
- 14.5 Clinical Trials in Liver Transplant Recipients and/or Subjects with Decompensated Cirrhosis
- 14.6 Clinical Trial in Pediatric Subjects

**16 HOW SUPPLIED/STORAGE AND HANDLING**

**17 PATIENT COUNSELING INFORMATION**

\* Sections or subsections omitted from the full prescribing information are not listed.

---

## 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 coinfecting 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 coinfecting 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 <sup>*</sup>
	Treatment-experienced <sup>**</sup> without cirrhosis	HARVONI 12 weeks
	Treatment-experienced <sup>**</sup> with compensated cirrhosis (Child-Pugh A)	HARVONI 24 weeks <sup>†</sup>
	Treatment-naïve and treatment-experienced <sup>**</sup> with decompensated cirrhosis (Child-Pugh B or C)	HARVONI + ribavirin <sup>‡</sup> 12 weeks
Genotype 1 or 4	Treatment-naïve and treatment-experienced <sup>**</sup> liver transplant recipients without cirrhosis, or with compensated cirrhosis (Child-Pugh A)	HARVONI + ribavirin <sup>§</sup> 12 weeks
Genotype 4, 5, or 6	Treatment-naïve and treatment-experienced <sup>**</sup> , 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)*].

\*\*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.

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

### 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
Genotype 1	Treatment-naïve without cirrhosis or with compensated cirrhosis (Child-Pugh A)	HARVONI 12 weeks
	Treatment-experienced <sup>a</sup> without cirrhosis	HARVONI 12 weeks
	Treatment-experienced <sup>a</sup> with compensated cirrhosis (Child-Pugh A)	HARVONI 24 weeks
Genotype 4, 5, or 6	Treatment-naïve and treatment-experienced <sup>a</sup> 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 m<sup>2</sup>) 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.

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.