

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
HARVONI® (ledipasvir and sofosbuvir) oral pellets
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

Indications and Usage (1)	8/2019
Dosage and Administration	
Recommended Treatment Regimen and Duration in Patients 3 Years of Age and Older with Genotype 1, 4, 5, or 6 HCV (2.2)	8/2019
Recommended Dosage in Pediatric Patients 3 Years of Age and Older (2.4)	8/2019
Preparation and Administration of Oral Pellets (2.5)	8/2019
Renal Impairment (2.6)	11/2019

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 and pediatric patients 3 years of age and older:

- Genotype 1, 4, 5, or 6 infection without cirrhosis or with compensated cirrhosis
- Genotype 1 infection with decompensated cirrhosis, in combination with ribavirin
- Genotype 1 or 4 infection who are liver transplant recipients without cirrhosis or with compensated cirrhosis, in combination with ribavirin. (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 treatment regimen and duration in patients 3 years of age and older: (2.2)

HCV Genotype	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 4, 5, or 6	Treatment-naïve and treatment-experienced without cirrhosis or with compensated cirrhosis (Child-Pugh A)	HARVONI 12 weeks

- Recommended dosage in adults: One tablet (90 mg of ledipasvir and 400 mg of sofosbuvir) taken orally once daily with or without food. (2.3)

- Recommended dosage in pediatric patients 3 years and older: Recommended dosage of HARVONI in pediatric patients 3 years of age and older is based on weight. Refer to Table 2 of the full prescribing information for specific dosing guidelines based on body weight. (2.4)
- Instructions for Use should be followed for preparation and administration of HARVONI oral pellets. (2.5)
- HCV/HIV-1 coinfection: For adult and pediatric patients with HCV/HIV-1 coinfection, follow the dosage recommendations in the tables in the full prescribing information. (2.3, 2.4)
- If used in combination with ribavirin, follow the recommendations for ribavirin dosing and dosage modifications. (2.3, 2.4)
- For patients with any degree of renal impairment, including end stage renal disease on dialysis, no HARVONI dosage adjustment is recommended. (2.6)

DOSAGE FORMS AND STRENGTHS

- Tablets: 90 mg of ledipasvir and 400 mg of sofosbuvir; 45 mg of ledipasvir and 200 mg of sofosbuvir. (3)
- Oral Pellets: 45 mg of ledipasvir and 200 mg of sofosbuvir; 33.75 mg of ledipasvir and 150 mg of 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)
- Consult the full prescribing information prior to use for potential drug interactions. (5.2, 5.3, 7, 12.3)
- Clearance of HCV infection with direct acting antivirals may lead to changes in hepatic function, which may impact safe and effective use of concomitant medications. Frequent monitoring of relevant laboratory parameters (INR or blood glucose) and dose adjustments of certain concomitant medications may be necessary. (7.2)

USE IN SPECIFIC POPULATIONS

- Pediatric Use: No data are available regarding the safety of HARVONI in pediatric patients with renal impairment. (8.4)

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

Revised: 03/2020

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 Treatment Regimen and Duration in Patients 3 Years of Age and Older with Genotype 1, 4, 5, or 6 HCV
- 2.3 Recommended Dosage in Adults
- 2.4 Recommended Dosage in Pediatric Patients 3 Years of Age and Older
- 2.5 Preparation and Administration of Oral Pellets
- 2.6 Renal Impairment

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 Trials in Adults with Severe Renal Impairment, Including those Requiring Dialysis
- 14.7 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

HARVONI is indicated for the treatment of adults and pediatric patients 3 years of age and older with chronic hepatitis C virus (HCV) [see *Dosage and Administration (2.2 and 2.3)* 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

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 Treatment Regimen and Duration in Patients 3 Years of Age and Older with Genotype 1, 4, 5, or 6 HCV

Table 1 shows the recommended HARVONI treatment regimen and duration based on patient population. Relapse rates are affected by baseline host and viral factors and differ between treatment durations for certain subgroups [see *Clinical Studies (14)*].

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 Patients 3 Years of Age and Older with Genotype 1, 4, 5, or 6 HCV

HCV Genotype	Patient Population	Treatment Regimen and Duration
Genotype 1	Treatment-naïve without cirrhosis or with compensated cirrhosis (Child-Pugh A)	HARVONI 12 weeks ^a
	Treatment-experienced ^b without cirrhosis	HARVONI 12 weeks
	Treatment-experienced ^b with compensated cirrhosis (Child-Pugh A)	HARVONI 24 weeks ^c
	Treatment-naïve and treatment-experienced ^b with decompensated cirrhosis (Child-Pugh B or C)	HARVONI + ribavirin ^d 12 weeks
Genotype 1 or 4	Treatment-naïve and treatment-experienced ^b liver transplant recipients without cirrhosis, or with compensated cirrhosis (Child-Pugh A)	HARVONI + ribavirin ^d 12 weeks
Genotype 4, 5, or 6	Treatment-naïve and treatment-experienced ^b , 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 adult and pediatric subjects 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 *Dosage and Administration (2.3 and 2.4)* and *Clinical Studies (14.2)*].
- See *Dosage and Administration 2.3 and 2.4* for ribavirin dosage recommendations.

2.3 Recommended Dosage in Adults

The recommended dosage of HARVONI in adults with genotype 1, 4, 5, or 6 HCV is one tablet (90 mg ledipasvir and 400 mg sofosbuvir) taken orally once daily with or without food [see *Clinical Pharmacology (12.3)*].

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.

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.

For further information on ribavirin dosing and dosage modifications, refer to the ribavirin prescribing information [see *Dosage and Administration (2.4)*, *Use in Specific Populations (8.6)*, and *Clinical Studies (14.5)*].

2.4 Recommended Dosage in Pediatric Patients 3 Years of Age and Older

The recommended dosage of HARVONI in pediatric patients 3 years of age and older with genotype 1, 4, 5, or 6 HCV using HARVONI tablets or oral pellets is based on weight (Table 2). Table 3 provides the weight-based dosage of ribavirin when used in combination with HARVONI for pediatric patients. Take HARVONI tablets or pellets (with or without food) once daily [see *Dosage and Administration (2.5)*, *Clinical Pharmacology (12.3)*, and *Clinical Studies (14.7)*]. HARVONI pellets can be taken in pediatric patients who cannot swallow the tablet formulation.

Table 2 Dosing for Pediatric Patients 3 Years and Older Using HARVONI Tablets or Oral Pellets

Body Weight (kg)	Dosing of HARVONI Tablets or Oral Pellets	HARVONI Daily Dose
at least 35	one 90 mg/400 mg tablet once daily or two 45 mg/200 mg tablets once daily or two 45 mg/200 mg packets of pellets once daily	90 mg/400 mg per day
17 to less than 35	one 45 mg/200 mg tablet once daily or one 45 mg/200 mg packet of pellets once daily	45 mg/200 mg per day
less than 17	one 33.75 mg/150 mg packet of pellets once daily	33.75 mg/150 mg per day

Table 3 Recommended Dosing for Ribavirin in Combination Therapy with HARVONI for Pediatric Patients 3 Years and Older

Body Weight (kg)	Oral Ribavirin Daily Dosage ^a
less than 47	15 mg per kg per day (divided dose AM and PM)
47–49	600 mg per day (1 x 200 mg AM, 2 x 200 mg PM)
50–65	800 mg per day (2 x 200 mg AM, 2 x 200 mg PM)
66–80	1000 mg per day (2 x 200 mg AM, 3 x 200 mg PM)
greater than 80	1200 mg per day (3 x 200 mg AM, 3 x 200 mg PM)

a. The daily dosage of ribavirin is weight-based and is administered orally in two divided doses with food.

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.