

INFORMATION FOR PRIMARY CARE

**SIMPLE REGIMEN.[^] 8 WEEKS.
ALL HEPATITIS C GENOTYPES.***

FOR TREATMENT-NAÏVE, NON-CIRRHOTIC PATIENTS¹

[^]Once daily dosing, 3 tablets with food. *Refers to genotypes 1–6.

Information for primary care health professionals

1. MAVIRET Approved Data Sheet.

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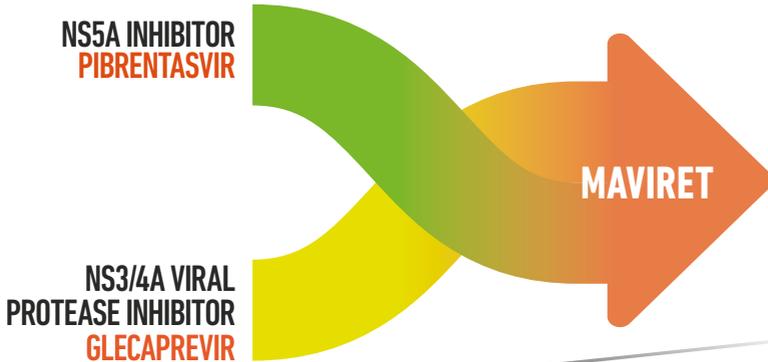
MAVIRET 
glecaprevir/pibrentasvir

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MAVIRET PANGENOTYPIC 8-WEEK THERAPY¹

MAVIRET is indicated for the treatment of adults and adolescents 12 years and older with chronic hepatitis C.¹ MAVIRET combines two pangenotypic, direct-acting antiviral agents that target different steps in the hepatitis C viral lifecycle.¹



STRONG

98% CURE* RATES[†]
ACROSS GT 1-6^{1,2}

*Cure, defined as HCV RNA below the lower limit of detection at 12 weeks post end-of-treatment (SVR12).

FAST

8-WEEK REGIMEN
FOR TREATMENT-NAIVE,
NON-CIRRHOTIC PATIENTS.¹

SIMPLE

ONCE DAILY DOSING[^]
FOR ALL GENOTYPES^{††}

[^]Once daily dosing (3 tablets) with food. 300 mg/120 mg (three 100 mg/40 mg tablets). Tablets should be swallowed whole with food and not chewed, crushed or broken. ^{††}Refers to genotypes 1-6.

Treatment-naive, non-cirrhotic patients with chronic HCV infection are particularly suitable for management in a primary care setting.³

¹HCV GT1-6 (n/N=943/965), treatment-naive, non-cirrhotic patients with 8 weeks of therapy. Based on pooled data. Data include non-cirrhotic, treatment-experienced patients (n=197, 20%) to pegIFN, RBV, and/or sofosbuvir with GT 1,2,4,5 and 6 infection. GT3 patients included in this analysis were treatment-naive only. GT 1-6 = genotypes 1-6. SVR = sustained virologic response. HCV = hepatitis C virus. RNA = ribonucleic acid. pegIFN = pegylated interferon. RBV = ribavirin.

PRE-TREATMENT ASSESSMENT

SEROLOGY AND VIRAL TESTING: CONFIRMATION OF CHRONIC HCV INFECTION

Acute HCV refers to the few months immediately after someone is infected. For unknown reasons, up to 25% of infected people spontaneously clear the virus in the first 6 months without treatment but will remain HCV antibody positive for their lifetime. This does not protect them against re-infection.^{3,4}

Most people cannot spontaneously clear the virus and develop a chronic infection.³

A hepatitis C antibody test (hep C Ab) tests for antibodies to the HCV.³

A positive antibody test indicates that the patient has been exposed to the virus at some point in their life; it doesn't

necessarily mean the person is currently infected with HCV.³

Following exposure to the virus, it may take up to 3 months for HCV antibodies to be present in blood, although the test is usually positive after 6 weeks.⁴

A PCR (polymerase chain reaction) or HCV RNA test detects the presence of viral RNA in the blood and confirms current infection with HCV.

Patients with suspected acute infection should be monitored closely and retested in 6 months after suspected exposure to HCV to assess for chronic HCV.³

TESTING TO CONFIRM IF YOUR CHRONIC HCV PATIENT HAS CIRRHOSIS OR NOT

Signs of cirrhosis include jaundice, abdominal pain, splenomegaly, ascites, decreased serum albumin, elevated serum bilirubin, and high INR (>1.3).³

All patients should be assessed for cirrhosis before treatment is initiated.³

This may either be done with a non-invasive assessment of fibrosis with a **FibroScan®** or **shear wave ultrasound**.³

A liver stiffness measurement of F3–F4 (≥ 12.5 kPa) indicates bridging fibrosis or cirrhosis.³

Alternatively, use blood test results to calculate the **APRI ratio** (AST to platelet ratio index).³

APRI scores:³

<1.0 is consistent with no cirrhosis.

≥ 1.0 indicates that there may be cirrhosis.

An APRI score calculator is available at www.hepatitisc.uw.edu/page/clinical-calculators/apri

It is recommended that patients with cirrhosis are referred into secondary care.³

CO-INFECTION WITH HBV OR HIV-1

It is recommended that patients co-infected with HCV and either HBV or HIV-1 are referred to secondary care.³

All HCV patients should be tested for HBV before initiation of HCV treatment. People with a current or previous HCV/HBV co-infection should be

monitored for possible reactivation of HBV during or after treatment for HCV.¹

Patients with HCV/HIV-1 co-infection will need a careful medicines review to manage potential interactions between their antiviral treatments.¹

CONTRAINDICATIONS AND PRECAUTIONS

MAVIRET IS CONTRAINDICATED IN:¹

- Patients with severe hepatic impairment (Child-Pugh C).
- Concomitant use with atazanavir and rifampicin.
- Patients with hypersensitivity to MAVIRET or to any of its excipients.



PRECAUTIONS

All patients should be screened for HBV before initiation of treatment as cases of HBV reactivation have been reported with direct-acting antiviral agents.¹ HBV co-infected patients should be referred to secondary care for monitoring and management (it does not exclude treatment with MAVIRET).³

PATIENTS WITH HEPATIC IMPAIRMENT

MAVIRET is not recommended in patients with moderate hepatic impairment (Child-Pugh B).¹

PATIENTS WITH LACTOSE INTOLERANCE

MAVIRET contains lactose. Each film-coated tablet contains 7.48 mg of lactose

(as lactose monohydrate). Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take MAVIRET.¹

PATIENTS WITH DIABETES

Patients may experience liver function improvement with HCV treatment resulting in improved glucose metabolism. Rare cases of symptomatic hypoglycaemia have been reported with the use of HCV DAAs. Close monitoring of blood glucose levels is recommended to determine if anti-diabetes medication dose adjustment is required.¹

PREGNANCY, CONTRACEPTION AND BREASTFEEDING

PREGNANCY

The effects of MAVIRET during pregnancy are not known. As a precautionary measure, MAVIRET use is not recommended in pregnancy.¹

BREASTFEEDING

It is unknown whether glecaprevir or pibrentasvir are excreted in human milk. Therefore, a clinical decision must be made, taking into account the benefits of breastfeeding for the child and the benefit of therapy for the woman.¹

CONTRACEPTION

Co-administration of MAVIRET with ethinyloestradiol containing contraceptives is not recommended.¹

HCV = Hepatitis C Virus. DAA = Direct Acting Antivirals.

DRUG INTERACTIONS ARE MANAGEABLE

NO DOSE ADJUSTMENT REQUIRED

- ✔ Abacavir, Emtricitabine, Lamivudine, Tenofovir¹
- ✔ Amlodipine and Felodipine¹
- ✔ Buprenorphine and Methadone¹
- ✔ Caffeine¹
- ✔ Dextromethorphan¹
- ✔ Dolutegravir, Elvitegravir/ Cobicistat, Raltegravir, Rilpivirine¹
- ✔ Fluticasone^{6*}
- ✔ Lamotrigine¹
- ✔ Losartan¹
- ✔ Methylphenidate^{6*}
- ✔ Midazolam¹
- ✔ Naloxone¹
- ✔ Norethisterone or other progestin-only contraceptives¹
- ✔ Omeprazole¹
- ✔ Sofosbuvir, Tacrolimus¹
- ✔ Tolbutamide¹

CONTRAINDICATIONS¹

- ✘ Atazanavir
- ✘ Rifampicin

CLINICAL MONITORING / DOSAGE AND ADJUSTMENTS

- ⊖ Digoxin – Dosage should be reduced by 50% if daily dose is 0.5mg.¹ Therapeutic drug monitoring recommended.⁶
- ⊖ Pravastatin – Pravastatin dose should be reduced by 50%.¹
- ⊖ Quetiapine – Monitor patients closely for signs and symptoms of toxicity.⁶
- ⊖ Rosuvastatin – Rosuvastatin dose should not exceed 10 mg per day.¹
- ⊖ Vitamin K antagonist - Close monitoring of INR is recommended.¹

NOT RECOMMENDED¹

- ⊖ Atorvastatin
- ⊖ Carbamazepine
- ⊖ Ciclosporin[^]
- ⊖ Dabigatran etexilate
- ⊖ Darunavir/ritonavir
- ⊖ Efavirenz/ emtricitabine/ tenofovir
- ⊖ Ethinylloestradiol
- ⊖ Lopinavir/ ritonavir
- ⊖ Lovastatin
- ⊖ Simvastatin
- ⊖ St. John's wort (Hypericum perforatum)

Further information on possible drug interactions can be found at

www.hep-druginteractions.org/checker

* Coadministration has not been studied but based on metabolism and clearance a clinically significant interaction is unlikely. ^Not recommended for use in patients requiring stable ciclosporine doses >100 mg per day. This is not an exhaustive list. For further information and specific details of comedications with potential for drug-drug interactions, please consult: • The full Data Sheet for MAVIRET at www.medsafe.govt.nz. • The University of Liverpool's independent website about drug interactions with HCV treatments at www.hep-druginteractions.org • The New Zealand Formulary interactions checker: www.nzf.org.nz • AbbVie's Medical Information team, at medinfoanz@abbvie.com or on 0800 900 030.

PRESCRIBING TREATMENT

RECOMMENDED MAVIRET TREATMENT DURATION FOR PATIENTS WITHOUT PRIOR TREATMENT FOR HEPATITIS C¹

GENOTYPE	NO CIRRHOSIS	CIRRHOSIS [‡]
GT 1–6	8 weeks	12 weeks

[‡]For use in patients with compensated (Child-Pugh A) cirrhosis.

Includes HCV/HIV-1 co-infection and HCV/HBV co-infection. Close monitoring is required in case of reactivation of HBV. Please refer to the Data Sheet for the dosing guide for people who have had previous treatment for hepatitis C or who have had a liver or kidney transplant.

MAVIRET can be used in patients with any degree of renal impairment, including those on dialysis.¹ No dosage adjustment of MAVIRET is required.¹

DOSING FOR MAVIRET¹

Once-daily dosing for adults and adolescents 12 years and older (3 tablets), with food. Tablets should be swallowed whole with food and not chewed, crushed or broken and taken with a glass of water. Each tablet contains 100 mg glecaprevir and 40 mg pibrentasvir.

Before prescribing MAVIRET, please review the indications, contraindications, precautions, and drug-drug interactions in the full Data Sheet, available at www.medsafe.govt.nz

LOGISTICS: XPHARM DISTRIBUTION

All prescribers, including GPs, can prescribe fully funded MAVIRET for patients with chronic hepatitis C genotypes 1-6. The XPHARM distribution model for MAVIRET is different to that for most funded medicines. **Under this arrangement, only pharmacies enrolled in the AbbVie Care Pharmacy Programme can dispense MAVIRET.**

The specific steps you need to follow are:

- **Find an AbbVie Care Pharmacy with your patient from www.maviret.co.nz**
- Write a prescription for MAVIRET for your patient to take to the selected AbbVie Care Pharmacy.
- Advise the patient that the pharmacist will contact them to let them know when the medicine has arrived and is ready for collection (this may take a few days).
There will be no pharmacy charges for your patients to access MAVIRET from the pharmacy.

DURING TREATMENT

FAVOURABLE TOLERABILITY¹ FOR YOUR PATIENTS¹

ACROSS ALL STUDIES WITH MAVIRET, MOST ADVERSE REACTIONS WERE MILD (GRADE 1)^{§1}

THE MOST COMMON SIDE EFFECTS WERE:^{§1}



Treatment was **well tolerated**.¹ ^0.1% discontinuation rate due to adverse events across all trials.¹ Most adverse events were of mild severity.¹

To report an adverse event, please contact AbbVie Pharmacovigilance at anzpv@abbvie.com and the Centre for Adverse Reactions Monitoring (CARM) at carmnz@otago.ac.nz

DURING TREATMENT

IT'S VERY IMPORTANT TO TAKE MAVIRET EVERY DAY AND NOT TO MISS ANY DOSES.¹

If a dose is missed, please instruct patients as follows:

TIME SINCE DOSE WAS MISSED

LESS
THAN **18** hrs

Take the dose with food as soon as possible.
Then take the next dose at the usual time.



18 hrs
OR
MORE

Wait and take the next dose at the usual time.
Do not take a double dose (two doses too close together).



ADVICE FOR PATIENTS

AbbVie will provide a patient information booklet to pharmacies to give to each patient when the medicine is dispensed. You can download this booklet from www.maviret.co.nz (the username and password for the HCP section of the website are both **GT1-6**).

- Emphasise to the patient the importance of adherence, taking their tablet daily as directed and picking up their repeat from the pharmacist on time, to give them the best chance of achieving cure* of the infection.
- Ask them to avoid starting any new medicines during treatment (without consultation on potential drug interactions with their doctor or pharmacist).

*Cure, defined as HCV RNA below the lower limit of detection at 12 weeks post end-of-treatment (SVR12).

AFTER TREATMENT³

VIRAL TEST TO CONFIRM CURE³

Check HCV RNA and Liver Function Tests (LFTs) 12 weeks after treatment has finished.

- ***Undetectable HCV RNA 12 weeks after treatment indicates a sustained virologic response (SVR12).**
- If HCV RNA is detected, the patient has not been cured and needs referral to secondary care or discuss with a gastroenterologist.
- It is recommended that if LFTs are elevated despite sustained virologic response (SVR12), the patient is referred to secondary care.

POST-TREATMENT FOLLOW-UP

Patients with cirrhosis before treatment should remain under long-term surveillance for hepatocellular carcinoma.⁷

ADVICE FOR PATIENTS

- Counsel on harm reduction to avoid reinfection.⁴
- Explain they will remain HCV antibody positive for life, despite successful treatment.^{3,4}
- Patients should be reminded that MAVIRET does NOT protect against reinfection following re-exposure.⁴

LINKS AND RESOURCES

Maviret website

www.maviret.co.nz

The username and password for the HCP section of the website are both GT1-6.

Only AbbVie Care Pharmacies registered for Maviret can dispense Maviret.

Please refer to the pharmacy locator on www.maviret.co.nz with your patient to decide on the most convenient pharmacy location.

Hep C disease awareness website

www.hepCinfo.co.nz prepared by AbbVie Limited.

Hepatitis Foundation of New Zealand

www.hepatitisfoundation.org.nz

Ministry of Health

www.health.govt.nz/our-work/diseases-and-conditions/hepatitis-c

Community Alcohol and Drug Services, Auckland

www.cads.org.nz

New Zealand Needle Exchange Programme

www.nznep.org.nz

bpac^{nz}

www.bpac.org.nz/hepc

REFERENCES

1. MAVIRET Approved Data Sheet. Available at <http://www.medsafe.govt.nz>. 2. Puoti et al. High SVR rates with 8 and 12 weeks of pangenotypic G/P: integrated efficacy analysis of genotype 1–6 patients without cirrhosis. *Journal of Hepatology* (2018), doi: <https://doi.org/10.1016/j.jhep.2018.03.007>. 3. Bpac^{nz}. Hepatitis C management in primary care has changed. <https://bpac.org.nz/2019/hepc/overview.aspx>. Accessed June 2019. 4. ASHM. Hepatitis C. Your crucial role as a primary health care nurse. <https://www.ashm.org.au/products/product/1-921850-24-8>. Accessed June 2019. 5. Gane E, Stedman C, Brunton C, et al. *N Z Med J* 2014;127:61–74. 6. University of Liverpool. HEP Drug Interactions. <https://www.hep-druginteractions.org/checker>. Accessed June 2019. 7. Hepatitis C Virus Infection Consensus Statement Working Group. Australian recommendations for the management of hepatitis C virus infection: a consensus statement (September 2018). Melbourne: Gastroenterological Society of Australia, 2017. Available from: <https://www.asid.net.au/documents/item/1208>. Accessed June 2019.

MAVIRET is a fully funded prescription medicine on the Pharmaceutical Schedule with an XPHARM distribution arrangement.

MAVIRET® (glecaprevir 100 mg/pibrentasvir 40 mg) tablets. Prescription medicine. Please review full data sheet before prescribing. This is available from Medsafe at www.medsafe.govt.nz, or phone 0800 900 030.

INDICATIONS MAVIRET is indicated for the treatment of adults and adolescents 12 years and older with chronic hepatitis C virus (HCV).

CONTRAINDICATIONS Hypersensitivity to active substances or excipients; severe hepatic impairment (Child-Pugh C); concomitant use with atazanavir and rifampicin. **PRECAUTIONS** Risk of Hepatitis B virus reactivation; not recommended in patients with moderate hepatic impairment (Child-Pugh B); patients with lactose intolerance; risk of hypoglycaemia in diabetic patients; pregnancy; lactation; safety and efficacy of MAVIRET in patients younger than 12 years of age have not been established. See data sheet for details.

INTERACTIONS Potential for significant drug interactions requiring dose adjustment of the following medicines administered concomitantly: atorvastatin, carbamazepine; ciclosporin; dabigatran etexilate; darunavir; digoxin; efavirenz; ethinyloestradiol-containing products; lopinavir; lovastatin; pravastatin; ritonavir; rosuvastatin; St John's wort (*Hypericum perforatum*); simvastatin; Vitamin K antagonists. See data sheet for details.

ADVERSE EFFECTS Headache, fatigue, nausea, serum bilirubin elevations. See data sheet for additional information on adverse effects in special populations.

DOSAGE AND ADMINISTRATION The recommended oral dosage of MAVIRET in adults and adolescents 12 years and older is three glecaprevir/pibrentasvir 100 mg/40 mg tablets (total daily dose: glecaprevir 300 mg and pibrentasvir 120 mg) once daily with food. See data sheet for additional information on duration of treatment and use in special populations.

DATE OF PREPARATION 20 June 2019, Version 5. AbbVie is a registered Trademark of AbbVie Inc. MAVIRET is a registered Trademark of AbbVie Ireland Unlimited Company.®

