



Glecaprevir/Pibrentasvir (Mavyret™) Drug Interactions

A Quick Guide for Clinicians – April 2018

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Mechanism of Action and Route of Metabolism for Glecaprevir/Pibrentasvir (Mavyret™)

Medication	HCV Mechanism of Action	Route of Metabolism and Drug Interaction Potential
Glecaprevir/Pibrentasvir (Mavyret™)	NS3/4A protease inhibitor and an NS5a inhibitor	<ul style="list-style-type: none"> Glecaprevir and pibrentasvir are inhibitors of P-glycoprotein (P-gp), breast cancer resistance protein (BCRP), and organic anion transporting polypeptide (OATP) 1B1/3. Glecaprevir and pibrentasvir are also weak inhibitors of CYP3A4, CYP1A2 and uridine glucuronosyltransferase (UGT) 1A1.

Glecaprevir/Pibrentasvir (Mavyret™) Drug Interactions with HIV Medications

Concurrent Medication	Recommendation and Clinical Comments
HIV Protease Inhibitors	
Atazanavir (Reyataz®) + ritonavir (Norvir®) Atazanavir/cobicistat (Evotaz®) Darunavir (Prezista®) + ritonavir (Norvir®) Darunavir/cobicistat (Prezcobix®) Lopinavir/ritonavir (Kaletra®) Fosamprenavir (Lexiva®) + ritonavir (Norvir®) Saquinavir (Invirase®) + ritonavir (Norvir®) Tipranavir (Aptivus®) + ritonavir (Norvir®)	<ul style="list-style-type: none"> Co-administration with atazanavir contraindicated due to increased ALT levels. Use of glecaprevir/pibrentasvir with darunavir/ritonavir and lopinavir/ritonavir is not recommended due to expected increases in glecaprevir levels. No data is available with other protease inhibitors, though similar interaction likely.
HIV Non Nucleoside Reverse Transcriptase Inhibitors	
Efavirenz (Sustiva®, also contained in Atripla®) Etravirine (Intelence®) Nevirapine (Viramune®)	<ul style="list-style-type: none"> Co-administration with efavirenz contraindicated. Significant reduction in glecaprevir/pibrentasvir levels expected. Similar interaction likely with etravirine and nevirapine.
Rilpivirine (Edurant®, also contained in Complera®, Odefsey®)	<ul style="list-style-type: none"> Concurrent use at standard doses appropriate.

Glecaprevir/Pibrentasvir (Mavyret™) Drug Interactions with HIV Medications, continued

Concurrent Medication	Recommendation and Clinical Comments
HIV Integrase Strand Transfer Inhibitors	
Bictegravir/tenofovir alafenamide/emtricitabine (Biktarvy®)	<ul style="list-style-type: none"> • Concurrent use at standard doses appropriate.
Dolutegravir (Tivicay®, also contained in Triumeq®)	<ul style="list-style-type: none"> • Concurrent use at standard doses appropriate.
Elvitegravir/cobicistat/tenofovir disoproxil fumarate/emtricitabine (Stribild®) and Elvitegravir/cobicistat/tenofovir alafenamide/emtricitabine (Genvoya®)	<ul style="list-style-type: none"> • Concurrent use at standard doses appropriate.
Raltegravir (Isentress®, Isentress HD®)	<ul style="list-style-type: none"> • Concurrent use at standard doses appropriate.
HIV Entry Inhibitors	
Maraviroc (Selzentry®)	<ul style="list-style-type: none"> • Concurrent use at standard doses appropriate.
HIV Nucleoside/Nucleotide Reverse Transcriptase Inhibitors	
Abacavir (Ziagen®) Didanosine (Videx EC®) Emtricitabine (Emtriva®) Lamivudine (Epivir®) Tenofovir Disoproxil Fumarate (Viread®) Tenofovir Alafenamide (in Descovy®) Stavudine (Zerit®) Zidovudine (Retrovir®)	<ul style="list-style-type: none"> • Concurrent use at standard doses appropriate.

Glecaprevir/Pibrentasvir (Mavyret™) Drug Interactions with Common Primary Care Medications

Medication and or Class	Recommendation and Clinical Comments
Antiarrhythmic – Digoxin	<ul style="list-style-type: none"> Increased digoxin levels expected. Measure serum digoxin level prior to initiating therapy with glecaprevir/pibrentasvir; reduce digoxin dosage 50%.
Anticoagulant – Dabigatran	<ul style="list-style-type: none"> Refer to dabigatran package insert and follow dosage recommendations for patients receiving concurrent P-gp inhibitors.
Anticonvulsants – carbamazepine, phenobarbital, phenytoin	<ul style="list-style-type: none"> Significant decrease in glecaprevir/pibrentasvir levels expected. Co-administration not recommended.
Antimycobacterials – rifampin	<ul style="list-style-type: none"> Significant decrease in glecaprevir/pibrentasvir levels expected. Co-administration not recommended.
Ethinyl Estradiol	<ul style="list-style-type: none"> Potential increased risk of ALT elevations when glecaprevir/pibrentasvir is combined with ethinyl estradiol. Co-administration not recommended.
Herbal products – St. John's Wort	<ul style="list-style-type: none"> Significant decrease in glecaprevir/pibrentasvir levels expected. Co-administration not recommended.
HMG-CoA Reductase Inhibitors – atorvastatin, lovastatin, simvastatin	<ul style="list-style-type: none"> Significant increase in statin levels when combined with glecaprevir/pibrentasvir. Co-administration not recommended.
HMG-CoA Reductase Inhibitors – fluvastatin, pitavastatin, pravastatin, rosuvastatin	<ul style="list-style-type: none"> Fluvastatin, pitavastatin – Increase statin levels likely when used with glecaprevir/pibrentasvir; monitor closely for statin toxicity, including myopathy. Pravastatin – Increased statin levels likely when used with glecaprevir/pibrentasvir. Reduce pravastatin dosage 50% prior to adding glecaprevir/pibrentasvir. Rosuvastatin – Increased statin levels likely when used with glecaprevir/pibrentasvir. Do not exceed rosuvastatin 10mg when combined.
Immunosuppressants – cyclosporine	<ul style="list-style-type: none"> Increased levels of cyclosporine expected when combined with glecaprevir/pibrentasvir. Co-administration not recommended in patients requiring cyclosporine doses greater than 100mg daily.

Disclaimer: The information contained in this table has been developed from various resources, including FDA product information, abstracts and posters presented at national and international meetings, and from Recommendations for the Testing, Managing and Treating of Hepatitis C from AASLD and IDSA located at www.hivguidelines.org. While the tables contained in this guide are complete based upon references reviewed, there may be other medications that may also be contraindicated or should be co-administered with caution. Please consult additional resources as needed.