



Drug Interactions with Hepatitis C Virus NS3/4A Protease Inhibitors and HIV Medications: A Quick Guide for Clinicians

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Contraindicated Medications with HCV NS3/4A Protease Inhibitors*

Medication and or Class	Contraindicated with Boceprevir	Contraindicated with Telaprevir
Alpha blockers	Alfluzosin	Alfluzosin
Anticonvulsants	Carbamazepime, phenobarbital, phenytoin	N/A
Antimycobacterials	Rifampin	Rifampin
Ergot derivatives	Dihydroergotamine, ergonovine, ergotamine, methylergonovine	Dihydroergotamine, ergonovine, ergotamine, methylergonovine
GI motility medications	Cisapride	Cisapride
Herbal products	St John's Wort	St. John's Wort
HMG CoA Reductase Inhibitors	Lovastatin, simvastatin	Atrovastatin, lovastatin, simvastatin
Oral contraceptives	Drospirenone	N/A
Neuroleptic	Pimozide	Pimozide
Erectile Dysfunction Medications	Sildenafil or tadalafil when used for pulmonary hypertension	Sildenafil or tadalafil when used for pulmonary hypertension
Sedative Hypnotics	Triazolam and orally administered midazolam	Orally administered midazolam

*This table includes medication listed as contraindicated in the current Product Information for boceprevir and telaprevir. Other medications may also be contraindicated or should be co-administered with caution. Consult additional resources.

Boceprevir (Victrelis™) Drug Interactions with HIV Medications

Concurrent Medication	Effect	Recommendation
Atazanavir/ritonavir (Reyataz®/Norvir®)	<ul style="list-style-type: none"> Atazanavir AUC decreased 35% Atazanavir Cmin decreased 49% Ritonavir AUC decreased 36% Boceprevir AUC unchanged 	<ul style="list-style-type: none"> Co-administration not recommended
Darunavir/ritonavir (Prezista®/Norvir®)	<ul style="list-style-type: none"> Darunavir AUC decreased 44% Darunavir Cmin decreased 59% Ritonavir AUC decreased 26% Boceprevir AUC decreased 29% Boceprevir Cmin decreased 35% 	<ul style="list-style-type: none"> Co-administration not recommended
Lopinavir/ritonavir (Kaletra®)	<ul style="list-style-type: none"> Lopinavir AUC decreased 34% Lopinavir Cmin decreased 43% Ritonavir AUC decreased 23% Boceprevir AUC decreased 44% Boceprevir Cmin decreased 35% 	<ul style="list-style-type: none"> Co-administration not recommended
Efavirenz (Sustiva®)	<ul style="list-style-type: none"> Efavirenz AUC increased 20% Boceprevir AUC decreased 19% Boceprevir Cmin decreased 44% 	<ul style="list-style-type: none"> Co-administration not recommended
Tenofovir (Viread®)	<ul style="list-style-type: none"> No significant changes reported 	<ul style="list-style-type: none"> No dose adjustment necessary
Raltegravir (Isentress®)	<ul style="list-style-type: none"> No significant changes reported 	<ul style="list-style-type: none"> No dose adjustment necessary

Telaprevir (Incivek™) Drug Interactions with HIV Medications

Concurrent Medication	Effect	Recommendation
Atazanavir/ritonavir (Reyataz®/Norvir®)	<ul style="list-style-type: none"> Telaprevir AUC decreased 20% Atazanavir AUC increased 17% Atazanavir Cmin increased 85% 	<ul style="list-style-type: none"> No dose adjustment necessary
Darunavir/ritonavir (Prezista®/Norvir®)	<ul style="list-style-type: none"> Darunavir AUC decreased 40% Telaprevir AUC decreased 35% 	<ul style="list-style-type: none"> Co-administration not recommended
Fosamprenavir/ritonavir (Lexiva®/Norvir®)	<ul style="list-style-type: none"> Amprenavir AUC decreased 47% Telaprevir AUC decreased 32% 	<ul style="list-style-type: none"> Co-administration not recommended
Lopinavir/ritonavir (Kaletra®)	<ul style="list-style-type: none"> Lopinavir levels unchanged Telaprevir AUC decreased 54% 	<ul style="list-style-type: none"> Co-administration not recommended
Efavirenz (Sustiva®)	<ul style="list-style-type: none"> Efavirenz AUC unchanged Telaprevir AUC decreased 26% Telaprevir Cmin decreased 47% <p><u>When used with tenofovir</u></p> <ul style="list-style-type: none"> Efavirenz AUC decreased 15% to 18% Telaprevir AUC decreased 18% to 20% 	<ul style="list-style-type: none"> Increase telaprevir dose to 1125mg Q8H
Tenofovir (Viread®)	<ul style="list-style-type: none"> Tenofovir AUC increased 30% Tenofovir Cmin increased 6% to 41% 	<ul style="list-style-type: none"> Monitor for tenofovir-associated toxicity
Raltegravir (Isentress®)	<ul style="list-style-type: none"> Raltegravir AUC increased 31% Telaprevir levels unchanged 	<ul style="list-style-type: none"> No dose adjustment necessary

Definitions: AUC – Area under the curve; used as a measure of overall drug exposure. Cmin – Minimum concentrations; often referred to as the trough concentration

References: Department of Health and Human Services Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents. March 27, 2012. Accessed on March 29, 2012. Product Information. Victrelis, Merck and Co. Whitehouse Station NJ. May 2011. Product Information. Incivek, Vertex. Cambridge, MA. May 2011.