




Antiretroviral Treatment Options for Patients on Directly Acting Antivirals for Hepatitis C

	Daclatasvir (Daklinza®, DCV)	Elbasvir/ Grazoprevir (Zepatier®)	Ledipasvir/ Sofosbuvir (Harvoni®)	Sofosbuvir/ Velpatasvir (Epcusa®)	Sofosbuvir/ Velpatasvir/ Voxilaprevir (Vosevi®)	Holkira Pak®/Viekira Pak® (US) (paritaprevir/ ritonavir, ombitasvir 150/100/25 mg QD plus dasabuvir 250 mg BID)	Glecaprevir/ Pibrentasvir (Maviret®/Mavyret® - US) *dosed as glecaprevir 300 mg/pibrentasvir 120 mg = 3 tablets once daily
Pls: atazanavir	↓ daclatasvir dose to 30 mg daily with atazanavir/ritonavir or atazanavir/cobicistat. ^{1,2}	Contraindicated with atazanavir ³ : 10.58-fold ↑ grazoprevir AUC ⁴ and 4.76-fold ↑ elbasvir exposures. ⁵	Potential for ↑ tenofovir concentrations when administered with concomitant booster. Monitor for toxicity. ⁶⁻⁸	OK with atazanavir/ritonavir. ⁹	Coadministration not recommended due to ↑ voxilaprevir concentrations. ¹⁰	OK with atazanavir 300 mg QD. ^{11,12}	Contraindicated due to ↑ risk of ALT elevations. ¹³
Pls: other	No dose modifications required with darunavir/ritonavir, darunavir/cobicistat or lopinavir/ritonavir. ²	Contraindicated with darunavir, lopinavir, saquinavir, tipranavir ³ : 7.5-12.86-fold ↑ grazoprevir AUC ⁴ and 0.66-3.7-fold ↑ elbasvir exposures. ⁵		OK with darunavir/ritonavir, lopinavir/ritonavir. ⁹	Darunavir/ritonavir: ↑ voxilaprevir AUC ¹⁴ but considered safe. ¹⁰	Darunavir: take without additional ritonavir; monitor HIV viral load due to decreased darunavir Ctrough (Canadian monograph).	Darunavir/ritonavir, lopinavir/ritonavir: coadministration not recommended due to ↑ glecaprevir and pibrentasvir. ¹³
					Lopinavir/ritonavir: Coadministration not recommended due to ↑ voxilaprevir concentrations. ¹⁰	US monograph: Not recommended due to potential for decreased darunavir Ctrough. ¹²	
					Tipranavir/ritonavir: Coadministration not recommended due to decreased DAA concentrations. ¹⁰	Not recommended with lopinavir/ritonavir due to higher GI side effects and ↑ paritaprevir exposures. ¹⁵	
NNRTIs	Doravirine OK. ¹⁶	Doravirine OK. ¹⁶	Doravirine OK. ¹⁶	Doravirine OK. ¹⁶	Doravirine OK. ¹⁶	Doravirine OK. ¹⁶	Doravirine OK. ¹⁶

	Daclatasvir (Daklinza®, DCV) 60 mg daily with sofosbuvir 400 mg daily	Elbasvir/ Grazoprevir (Zepatier®) 100 mg/50 mg coformulation once daily	Ledipasvir/ Sofosbuvir (Harvoni®) 90/400 mg coformulation once daily	Sofosbuvir/ Velpatasvir (Epclusa®) 400/100 mg coformulation once daily	Sofosbuvir/ Velpatasvir/ Voxilaprevir (Vosevi®) 400/100/100 mg coformulation once daily	Holkira Pak®/Viekira Pak® (US) (paritaprevir/ ritonavir, ombitasvir 150/100/25 mg QD plus dasabuvir 250 mg BID)	Glecaprevir/ Pibrentasvir (Maviret®/Mavyret® - US) *dosed as glecaprevir 300 mg/pibrentasvir 120 mg = 3 tablets once daily
	↑ daclatasvir dose to 90 mg once daily with efavirenz. ¹	Contraindicated with efavirenz ³ : (84% ↓ grazoprevir AUC ¹⁷ and 54% ↓ elbasvir AUC. ¹⁸	Efavirenz OK. ¹⁹	Do not use with efavirenz (50% ↓ velpatasvir AUC). ²⁰	Coadministration with efavirenz not recommended due to decreased velpatasvir and voxilaprevir. ¹⁰	Contraindicated with efavirenz (increased risk of adverse events including LFT elevations). ^{12,21}	Coadministration with efavirenz not recommended due to possible decreased glecaprevir and pibrentasvir. ¹³
	No data. Coadministration not recommended with etravirine or nevirapine due to potential for ↓ daclatasvir. ²²	Not recommended with etravirine ³ due to potential for decreased elbasvir and grazoprevir concentrations.		Avoid or use with caution until further data available.	Avoid or use with caution until further data available.	Etravirine contraindicated due to risk of decreased 3D exposures. ¹²	Avoid or use with caution until further data available.
	Rilpivirine OK. ^{22,23}	Rilpivirine OK. ²⁴	Rilpivirine OK. ¹⁹ Rilpivirine/FTC/TAF: OK. ²⁵	Rilpivirine OK. ²⁰	Rilpivirine OK. ¹⁰	Not recommended with rilpivirine (116-273% ↑ rilpivirine exposures). ²¹	Rilpivirine OK. ²⁶
InSTIs	Bictegravir OK.	Bictegravir OK.	Bictegravir OK. ²⁷	Bictegravir OK. ²⁷	Bictegravir OK. ²⁷	Bictegravir OK.	Bictegravir OK.
	Dolutegravir OK. ^{22,28}	Dolutegravir OK. ²⁹	Dolutegravir OK. Monitor for tenofovir-associated toxicities if using tenofovir-based backbone. ³⁰	Dolutegravir OK. ²⁰	Dolutegravir OK. ¹⁰	Dolutegravir OK. ³¹	Dolutegravir OK. ³²
	Raltegravir OK. ²³	Raltegravir OK. ^{18,33}	Raltegravir OK. ¹⁹	Raltegravir OK. ²⁰	Raltegravir OK. ¹⁰	Raltegravir OK. ^{12,21}	Raltegravir OK. ²⁶

	Daclatasvir (Daklinza®, DCV)	Elbasvir/ Grazoprevir (Zepatier®)	Ledipasvir/ Sofosbuvir (Harvoni®)	Sofosbuvir/ Velpatasvir (Epclusa®)	Sofosbuvir/ Velpatasvir/ Voxilaprevir (Vosevi®)	Holkira Pak®/Viekira Pak® (US) (paritaprevir/ ritonavir, ombitasvir 150/100/25 mg QD plus dasabuvir 250 mg BID)	Glecaprevir/ Pibrentasvir (Maviret®/Mavyret® - US) *dosed as glecaprevir 300 mg/pibrentasvir 120 mg = 3 tablets once daily
	60 mg daily with sofosbuvir 400 mg daily	100 mg/50 mg coformulation once daily	90/400 mg coformulation once daily	400/100 mg coformulation once daily	400/100/100 mg coformulation once daily	150/100/25 mg QD plus dasabuvir 250 mg BID	glecaprevir 300 mg/pibrentasvir 120 mg = 3 tablets once daily
	↓ daclatasvir dose to 30 mg daily with cobicistat ²²	Not recommended with elvitegravir/co/ FTC/TDF due to increased elbasvir (2.2-fold increase) and grazoprevir (5.4- fold increase) concentrations. ³⁴	Potential for ↑ tenofovir concentrations when administered with concomitant booster. Monitor for toxicity. ^{7, 8}	Elvitegravir/co/FTC/ TDF: 40% ↑ tenofovir AUC. Monitor for toxicity. ⁹	Elvitegravir/co/FTC/ TDF: 40% ↑ tenofovir AUC. Monitor for toxicity. ¹⁰	Do not coadminister elvitegravir/cobicista t since paritaprevir and ombitasvir are coformulated with ritonavir.	Elvitegravir/ cobicistat OK. ³²
			NB: US monograph: combination not recommended. ⁶				
		Avoid with elvitegravir/co/FTC/ TAF (as above).	Elvitegravir/co/FTC/ TAF: OK. ³⁰	Elvitegravir/co/FTC/ TAF: OK. ⁹	Elvitegravir/co/FTC/ TAF: ↑ voxilaprevir AUC ¹⁴ but considered safe. ¹⁰		
Maraviroc	Standard doses of both OK. ²²						
NRTIs	Tenofovir DF OK. ¹	Tenofovir DF OK. ^{18, 33}	Potential for ↑ tenofovir concentrations. Monitor for toxicity. ⁸	Potential for 40-81% ↑ tenofovir concentrations. Monitor for toxicity. ³⁵	Potential for ↑ tenofovir concentrations. Monitor for toxicity. ¹⁰	Tenofovir DF OK. ^{11, 12}	Tenofovir DF OK. ¹³
			Tenofovir alafenamide OK. ²⁵	Tenofovir alafenamide OK. ³⁵	Tenofovir alafenamide OK. ¹⁰		Tenofovir alafenamide OK. ³²

Key:  = avoid combination  = caution/dose adjustment  = combination OK

Co=cobicistat; FTC: emtricitabine; TAF = tenofovir alafenamide; TDF = tenofovir disoproxil fumarate

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