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

	Simeprevir (Galexos®) 150 mg daily with food with sofosbuvir 400 mg daily	**Daclatasvir (Daklinza®, DCV)** 60 mg daily with sofosbuvir 400 mg daily	**Ledipasvir/ Sofosbuvir (Harvoni®)** 90/400 mg coformulation once daily	**Velpatasvir/ Sofosbuvir (Epclusa®)** 100/400 mg coformulation once daily	**Holkira Pak®/ *Viekira Pak® (US)*** (Abbvie 3D regimen: paritaprevir/ritonavir, ombitasvir 150/100/25 mg QD plus dasabuvir 250 mg BID	**Elbasvir/Grazoprevir (Zepatier®)** 100 mg/50 mg coformulation once daily
PIs: atazanavir	Not recommended with ritonavir- or cobicistat boosted PIs (significant ↑ simeprevir AUC).[1, 2]	↓ daclatasvir dose to 30 mg daily with atazanavir/ritonavir or atazanavir/ cobicistat.[3, 4]	Potential for ↑ tenofovir concentrations when administered with concomitant booster. Monitor for toxicity.[5-7]	OK with atazanavir/ritonavir[8]	OK with atazanavir 300 mg QD.[9, 10]	Contraindicated with atazanavir[11]: 10.58-fold ↑ grazoprevir AUC[12] and 4.76-fold ↑ elbasvir exposures.[13]
PIs: other		No dose modifications required with darunavir/ritonavir, darunavir/cobicistat or lopinavir/ritonavir.[4]		OK with darunavir/ritonavir, lopinavir/ritonavir.[8]	Darunavir: take without additional ritonavir; monitor HIV viral load due to decreased darunavir Ctrough (Canadian monograph).	Contraindicated with darunavir,lopinavir, saquinavir, tipranavir[11]: 7.5-12.86-fold ↑ grazoprevir AUC[12] and 0.66-3.7-fold ↑ elbasvir exposures.[13]
					US monograph: Not recommended due to potential for decreased darunavir Ctrough.[10]	
					Not recommended with lopinavir/ ritonavir due to higher GI side effects and ↑ paritaprevir exposures.[14]	
NNRTIs	Not recommended with efavirenz or nevirapine (71% ↓ simprevir AUC).[1, 2]	↑ daclatasvir dose to 90 mg once daily with efavirenz.[3]	Efavirenz OK.[15]	Do not use with efavirenz (50% ↓ velpatasvir AUC).[16]	Contraindicated with efavirenz (increased risk of adverse events including LFT elevations).[10, 17]	Contraindicated with efavirenz[11]: (84% ↓ grazoprevir AUC[18] and 54% ↓ elbasvir AUC.[19]
	Not recommended with etravirine.[2]	No data. Coadministration not recommended with etravirine or nevirapine due to potential for ↓			Etravirine contraindicated due to risk of decreased 3D exposures.[10]	Not recommended with etravirine[11] due to potential for decreased elbasvir and grazoprevir concentrations.

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		daclatasvir.[20]				
	Rilpivirine OK.[21]	Rilpivirine OK.[20, 22]	Rilpivirine OK.[15] Rilpivirine/FTC/tenofovir alafenamide: OK.[23]	Rilpivirine OK.[16]	Not recommended with rilpivirine (116-273% ↑ rilpivirine exposures).[17]	Rilpivirine OK.[24]
InSTIs		Dolutegravir OK.[20, 25]	Dolutegravir OK. Monitor for tenofovir-associated toxicities if using tenofovir-based backbone.[26]	Dolutegravir OK.[16]	Dolutegravir OK.[27]	Dolutegravir OK.[28]
	Raltegravir OK.[21]	Raltegravir OK.[22]	Raltegravir OK.[15]	Raltegravir OK.[16]	Raltegravir OK.[10, 17]	Raltegravir OK.[19, 29]
	Not recommended with cobicistat-boosted regimens.[1]	↓ daclatasvir dose to 30 mg daily with cobicistat[20]	Potential for ↑ tenofovir concentrations when administered with concomitant booster. Monitor for toxicity.[6, 7]	Elvitegravir/cobicistat/ FTC/tenofovir: 40% ↑ tenofovir AUC. Monitor for toxicity.[8]		Not recommended with elvitegravir/cobicistat/tenofovir/emtricitabine due to potential for increased elbasvir and grazoprevir concentrations.[11]
			NB: US monograph: combination not recommended.[5]			
			Elvitegravir/cobicistat/ FTC/tenofovir alafenamide: OK.[26]	Elvitegravir/cobicistat/ FTC/tenofovir alafenamide: OK.[8]		
Maraviroc		Standard doses of both OK.[20]				
NRTIs	Tenofovir OK.[1]	Tenofovir OK.[3]	Potential for ↑ tenofovir concentrations. Monitor for toxicity.[7]	Potential for 40-81% ↑ tenofovir concentrations. Monitor for toxicity.[30]	Tenofovir OK.[9, 10]	Tenofovir OK.[19, 29]
			Tenofovir alafenamide OK.[23]	Tenofovir alafenamide OK.[30]		

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

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