ANTICONVULSANTS

	INSTIs		NNRTIs		PIs	RTI	
	• BICTEGRAVIR *(Biktarvy)* • DOLUTEGRAVIR *(Tivicay, Triumeq, Juluca)* • RALTEGRAVIR *(Isentress)*	• ELVITEGRAVIR/ COBICISTAT *(Stribild, Genvoya)*	• DORAVIRINE *(Pifeltro, Delstrigo)* • RILPIVIRINE *(Edurant, Complera, Odefsey, Juluca)*	• EFAVIRENZ *(Sustiva, Atripla)* • ETRAVIRINE *(Intelence)* • NEVIRAPINE *(Viramune)*	• ATAZANAVIR *(Reyataz/Norvir, Evotaz)* • DARUNAVIR *(Prezista/Norvir, Prezcobix, Symtuza)* • LOPINAVIR *(Kaletra)*	• TENOFOVIR ALAFENAMIDE, TAF *(Descovy, Biktarvy, Genvoya, Odefsey, Symtuza)*	• TENOFOVIR DISOPROXIL, TDF *(Viread,Truvada, Atripla, Complera, Delstrigo, Stribild)* •ABACAVIR *(Kivexa, Ziagen, Triumeq)*
• Carbamazepine *(Tegretol)*	Potential for ↓ bictegravir ↓ dolutegravir; use 50 mg BID Raltegravir: use 400 mg BID, not 1200 mg daily	Potential for ↓ INSTI	↓ NNRTI	↓ NNRTI	Cobicistat-boosted PIs: ↓ PI, ↑ carbamazepine Ritonavir-boosted PIs: ↑ carbamazepine, potential ↓ PI	↓ TAF	
• Clobazam *(Frisium)*		Potential for ↑ clobazam		Potential for ↓ clobazam	Potential for ↑ clobazam		
• Gabapentin *(Neurontin)*, levetiracetam *(Keppra)*, pregabalin *(Lyrica)*, topiramate *(Topamax)*							

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• Lamotrigine *(Lamictal)*				Potential for ↓ lamotrigine	Cobicistat-boosted PIs: may be used without dose adjustment Ritonavir-boosted PIs: potential for ↓ lamotrigine		
• Phenytoin *(Dilantin)*, phenobarbital	Potential for ↓ bictegravir ↓ dolutegravir; use 50 mg BID Raltegravir: use 400 mg BID, not 1200 mg daily	Potential for ↓ INSTI	Potential for ↓ NNRTI	Potential for ↓ NNRTI Nevirapine: ↓ NNRTI and/or anticonvulsant	↓ cobicistat-boosted PIs ↓ ritonavir-boosted PIs; unpredictable ↑ or ↓ anticonvulsant	Potential for ↓ TAF	
• Valproate *(Epival, Depakene)*	Potential ↓ total dolutegravir; not likely clinically significant				Cobicistat-boosted PIs: may be used without dose adjustment Ritonavir-boosted PIs: potential for ↓ valproate		

Mechanism of Drug Interactions, Management and Monitoring

Anticonvulsant	Mechanism of Interaction	Main Interacting ARVs	Management	Monitoring
Gabapentin, Pregabalin, Topiramate, Levetiracetam	Primarily excreted unchanged in urine	None	None	None
Carbamazepine	CYP3A4 substrate and inducer of CYP3A, 2C19, UGT. Potential for decreased antiretrovirals or increased carbamazepine.	Ritonavir and cobicistat-boosted protease inhibitors or any products containing bictegravir, dolutegravir, elvitegravir, raltegravir, doravirine rilpivirine, tenofovir alafenamide	Avoid with cobicistat-boosted PIs, NNRTIs, bictegravir and elvitegravir/cobicistat. May need to reduce carbamazepine dose with ritonavir-boosted PIs. Increase dolutegravir to 50 mg BID; use raltegravir with caution.	Antiretroviral efficacy. Carbamazepine concentrations and toxicity (somnolence, dizziness).
Phenobarbital, Phenytoin	Substrate of 2C9, 2C19 and potent inducers of CYP3A4, 2C9/19, UGT. Potential for decreased antiretrovirals or decreased anticonvulsants.	Ritonavir and cobicistat-boosted protease inhibitors or any products containing bictegravir, dolutegravir, elvitegravir, raltegravir, doravirine rilpivirine, efavirenz, tenofovir alafenamide	Avoid these anticonvulsants if others are available and efficacious. Increase dolutegravir to 50 mg BID; use raltegravir 400mg BID with caution.	Antiretroviral efficacy. Monitor for CBZ toxicity, loss of seizure control. Monitor TDM if possible with DTG and RAL or at least close surveillance of antiretroviral efficacy
Lamotrigine, Valproate	Primarily cleared via UGT Lamotrigine: mild UGT inducer Valproate: Inhibitor of UGT, CYP2C9/19	Potential for decreased anticonvulsants due to UGT induction by ritonavir-boosted PIs and efavirenz. Reductions in dolutegravir concentrations have been observed with concomitant valproic acid. Mechanism presumed to be displacement of protein binding; free dolutegravir concentrations unchanged and thus this interaction is not likely not clinically significant.	May have to increase dose of anticonvulsant if ARV regimen cannot be changed and/or if there is no other suitable anticonvulsant.	Monitor for loss of seizure control Monitor for antiretroviral efficacy.

Anticonvulsant	Mechanism of Interaction	Main Interacting ARVs	Management	Monitoring
Clobazam	CYP3A4 substrate. Potential for increased clobazam with boosted regimens and decreased concentrations with NNRTIs	Ritonavir and cobicistat-boosted protease inhibitors or elvitegravir, Enzyme-inducing NNRTIs (efavirenz, etravirine, nevirapine)	May increase levels of clobazam, increasing potential for toxicity May decrease levels of clobazam	Monitor for signs of toxicity and reduce dose if necessary Monitor for loss of seizure control

Legend:

No dose adjustment required.

Use combination with caution. Adjustment in drug dose or frequency or additional/more frequent monitoring may be required. May wish to consult with a pharmacist knowledgeable in HIV drug interactions.

Contraindicated/avoid combination.

A MANAGEMENT TOOL FOR HIV DRUG-DRUG INTERACTIONS

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