

Drug Interactions with Anticonvulsants

Antiretroviral	Effect on Anticonvulsant	Effect on Antiretroviral	Potential Significance / Recommendation
carbamazepine (Tegretol)			
indinavir (IDV)	potential ↑ in plasma levels	↓ levels; impact viral efficacy	Documented cases of virologic failure. Avoid combination.
Atazanavir (ATV)	potential ↑ in plasma levels	May ↓ levels; impact viral efficacy	No documented cases. Avoid combination
ritonavir (RTV)	↑ plasma levels	Unknown	Documented cases of CBZ toxicity. Avoid combination. Follow CBZ serum levels.
Nelfinavir (NFV)	potential ↑ in plasma levels	May ↓ levels; impact viral efficacy	No documented cases. Avoid combination
saquinavir (FTV;INV)	Unknown	May ↓ levels; impact viral efficacy	No documented cases. Avoid combination
fosamprenavir (fAPV)	potential ↑ in plasma levels	May ↓ levels; impact viral efficacy	No documented cases. Avoid combination
lopinavir/ritonavir (LPV/r)	↑ plasma levels	Unknown	Documented cases of CBZ toxicity with RTV. Avoid combination. Follow CBZ serum levels.
Efavirenz (EFV)	Unknown	Unknown	Potential for increase or decrease in exposure of both drugs. No clinical data.
Nevirapine (NVP)	potential ↓ in plasma levels	Unknown	No clinical data. Potential for decreased exposure of both drugs.
Delavirdine (DLV)	Unknown	↓ levels; impact viral efficacy	90% decrease in exposure. Avoid combination.

Antiretroviral	Effect on Anticonvulsant	Effect on Antiretroviral	Potential Significance / Recommendation
phenytoin (Dilantin)			
indinavir (IDV)	Unknown	May ↓ levels; impact viral efficacy	Avoid combination.
Atazanavir (ATV)	Unknown	May ↓ levels; impact viral efficacy	Avoid combination.
Ritonavir (RTV)	Unknown	May ↓ levels; impact viral efficacy	Use with caution in boosted Pis.
Nelfinavir (NFV)	potential ↓ in plasma levels (20-40%)	↓ levels; 18% reduction in Cmin. No change in AUC.	Monitor phenytoin serum levels. Impact on NFV appears to be minimal. Use with caution.
Saquinavir (FTV;INV)	Unknown	May ↓ levels; impact viral efficacy	Avoid combination.
Fosamprenavir (fAPV)	Unknown	May ↓ levels; impact viral efficacy	Avoid combination.
Lopinavir/ritonavir (LPV/r)	potential ↓ in plasma levels (30%)	May ↓ levels; 46% reduction Cmin	Monitor phenytoin serum levels. Increase dose of LPV and/or additional RTV may be required.
Efavirenz (EFV)	Unknown	Unknown	Potential for increase or decrease in exposure of both drugs. No clinical data.
Nevirapine (NVP)	Unknown	Unknown	No clinical data. Potential for decreased exposure of both drugs.
Delavirdine (DLV)	Unknown	↓ levels; impact viral efficacy	90% decrease in exposure. Avoid combination.

Antiretroviral	Effect on Anticonvulsant	Effect on Antiretroviral	Potential Significance / Recommendation
lamotrigine (Lamictal)			
Lopinavir/ritonavir	Potential ↓ in plasma levels (~56%)	None	May warrant dose increase of lamotrigine. (may require doubling the dose)
nelfinavir	Potential ↓ in plasma levels	None	Monitor for efficacy and adjust dose. (induction of glucuronidation)
Other PIs	Interaction not likely	Interaction not likely	
NNRTIs	Interaction not likely	Interaction not likely	
levetiracetam (Keppra)			
PIs	Interaction not likely	Interaction not likely	
NNRTIs	Interaction not likely	Interaction not likely	
gabapentin (Neurontin)			
PIs	Interaction not likely	Interaction not likely	
NNRTIs	Interaction not likely	Interaction not likely	

Antiretroviral	Effect on Anticonvulsant	Effect on Antiretroviral	Potential Significance / Recommendation
valproic acid (Depakote)			
Lopinavir/ritonavir	Potential ↑ in plasma	None	No clinical significance.
nelfinavir	Potential ↓ in plasma levels	None	Monitor for efficacy and adjust dose. (induction of glucuronidation)
Other PIs	Interaction not likely	Interaction not likely	
NNRTIs	Interaction not likely	Interaction not likely	
zidovudine	Unkown	Potential ↑ in zidovudine levels	Monitor for signs of zidovudine toxicity (i.e. anemia)
topiramate (Topamax)			
PIs	Interaction not likely	Interaction not likely	There may be a small potential for interaction. The majority (70%) of the drug is excreted unchanged.
NNRTIs	Interaction not likely	Interaction not likely	There may be a small potential for interaction. The majority (70%) of the drug is excreted unchanged.
tiagabine (Gabitril)			
PIs	Potential ↑ in plasma	Interaction not likely	Primary route of metabolism thought to be CYP 3A4.
NNRTIs	Potential ↓ in plasma levels	Interaction not likely	Primary route of metabolism thought to be CYP 3A4.