

HAART and psychotropic drug interactions toolbox

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KEYWORDS

antiretroviral therapy, psychotropic medication

This toolbox on the next page is meant to be used as a quick reference when determining the level of evidence for and severity of drug interactions between antiretroviral therapy and psychotropic medications. A key is included describing each level of evidence and the various colors used in the document.

As you are working with individuals living with mental illness, you will find the [NAMI Medication Fact Sheets](#) developed by CPNP members to be helpful in educating your patients about their medications.

How to cite this editor-reviewed article

Freerksen S, Saitz M, Osawa G. HAART and psychotropic drug interactions toolbox. *Ment Health Clin* [Internet]. 2013;2(9):254-73. Available from: <http://dx.doi.org/10.9740/mhc.n140751>

HAART and Psychotropic Drug Interactions Toolbox





CONTENTS

ADs & PIs	256
ADs & NRTIs	259
ADs & NNRTIs-IIs-EIs	260
Antipsychotics & PIs	263
Antipsychotics & NRTIs	265
Antipsychotics & NNRTIs-IIs-EIs	266
AEDs & PIs	268
AEDs & NRTIs	269
AEDs & NNRTIs-IIs-EIs	270
Miscellaneous & PIs	271
Miscellaneous & NRTIs	272
Miscellaneous & NNRTIs-IIs-EIs	273

Key for level of evidence

- (A) Theoretical evidence only, usually not been studied
- (B) Information from Prescribing Information Sheets from the manufacturer
- (C) Clinical Stud(ies) beyond what is mentioned in the Prescriber's Information

Color code

	Caution advised
	Extreme caution advised
	Contraindicated
	Unknown

ADS & PIS

	atazanavir	darunavir	fosamprenavir	indinavir	lopinavir	nelfinavir	ritonavir	saquinavir	tipranavir
amitriptyline	May increase amitriptyline concentration - B	May increase amitriptyline concentration - B	May increase amitriptyline concentration - B	May increase amitriptyline concentration - B	May increase amitriptyline concentration - B	None in limited clinical trials - B	May increase amitriptyline concentration - A, B	Contraindicated due to cardiac arrhythmia risk - B	May increase amitriptyline concentration - B
bupropion	May decrease bupropion concentration with ritonavir - B, C	May decrease bupropion concentration - B, C	May decrease bupropion concentration - B, C	May decrease bupropion concentration - B, C	May significantly decrease bupropion concentration - C	May increase bupropion concentration and metabolite concentration may be decreased - C	May decrease bupropion concentration after longer than several days use - C	May decrease bupropion concentration - B, C	May decrease bupropion concentration - B, C
citalopram	May increase citalopram concentration - A	May increase citalopram concentration - A	May increase citalopram concentration - A	May increase citalopram concentration - A	May increase citalopram concentration - A	May increase citalopram concentration - A	May increase citalopram concentration - A	May increase citalopram concentration - A	May increase citalopram concentration - A
clomipramine	May increase clomipramine concentration - A, B	May increase clomipramine concentration - A, B	May increase clomipramine concentration - A, B	May increase clomipramine concentration - A, B	May increase clomipramine concentration - A, B	May increase clomipramine concentration - A, B	May increase clomipramine concentration - A, B	Contraindicated	May increase clomipramine concentration - A, B
desipramine	Desipramine concentration may be increased if coadministered with atazanavir/ritonavir. Low potential of interaction if atazanavir is used alone - A, B	Desipramine concentration can be increased if coadministered with darunavir/ritonavir. Low potential of interaction if atazanavir is used alone - A, B	May increase desipramine concentration - A	May increase desipramine concentration - A			May increase desipramine concentration and decrease metabolite concentration - C	May increase desipramine concentration - A	May increase desipramine concentration - A, B
duloxetine	A	A	A	A	Lopinavir/ritonavir may decrease duloxetine concentration - A	A	Ritonavir may increase duloxetine concentration - A	A	May increase duloxetine concentration - A
doxepin	May increase doxepin concentration - A	May increase doxepin concentration - A	May increase doxepin concentration - A	May increase doxepin concentration - A	May increase doxepin concentration - A	May increase doxepin concentration - A	May increase doxepin concentration - A	Contraindicated	May increase doxepin concentration - A
escitalopram	Fosamprenavir alone may increase in escitalopram concentration - A	Fosamprenavir alone may increase escitalopram concentrations - A	Fosamprenavir alone may increase escitalopram concentrations - A	Indinavir alone may increase escitalopram concentrations - A	Lopinavir/ritonavir may decrease escitalopram concentrations - A	May increase escitalopram concentration - A	May increase escitalopram concentration - A	May increase escitalopram concentration - A	May increase escitalopram concentration - A

	atazanavir	darunavir	fosamprenavir	indinavir	lopinavir	nelfinavir	ritonavir	saquinavir	tipranavir
fluoxetine	Atazanavir alone unlikely to affect fluoxetine concentration. No a priori dose adjustment is indicated - A	May increase fluoxetine concentration - A	May increase fluoxetine concentration - A	May increase fluoxetine concentration - A	May increase fluoxetine concentration - A		May increase fluoxetine concentration and increase ritonavir exposure - B, C	May increase fluoxetine concentration - A	May increase fluoxetine concentration - A, B
lithium	2 cases of decreased lithium concentrations with atazanavir - C								
mirtazapine	Potential - caution needed - mirtazapine conc may be increased - A, B	Mirtazapine concentration may be increased - A, B	Mirtazapine concentration may be increased - A, B	Mirtazapine concentration may be increased - A, B	Mirtazapine concentration may be increased - A, B	Mirtazapine concentration may be increased - A, B	Mirtazapine concentration may be increased - A, B	Mirtazapine concentration may be increased - A, B	Mirtazapine concentration may be increased - A, B
nefazodone	Potential - not been studied.	Potential	Potential	Potential	Potential	Potential	Potential	Potential	Potential
nortriptyline	Coadministration "has the potential to produce serious and/or life-threatening adverse events and has not been studied. Concentration monitoring ... is recommended" - B	May increase nortriptyline levels to moderate extent - A	May increase nortriptyline concentration to mild extent - A	May increase nortriptyline concentration if indinavir or indinavir/ritonavir is used. - A	May moderately increase nortriptyline exposure - A		May increase nortriptyline concentrations and decrease in dose may be indicated - A, B	Potential life-threatening arrhythmia - B	May increase nortriptyline exposure - A
paroxetine	Theoretically, paroxetine exposure should be increased by atazanavir/ritonavir, but paroxetine exposure is decreased by unknown mechanism by other ritonavir boosted PIs - A, C	Unknown mechanism decreased paroxetine concentrations, but PI exposure is unaffected - B,C	Unknown mechanism decreased paroxetine concentrations, but PI exposure is unaffected. - B, C	Theoretically, paroxetine exposure should be increased by indinavir/ritonavir, but paroxetine exposure is decreased by unknown mechanism by other ritonavir boosted PIs - A, C	Theoretically, paroxetine exposure should be increased by lopinavir/ritonavir, but paroxetine exposure is decreased by unknown mechanism by other ritonavir boosted PIs - A, C	Clinically significant effect on nelfinavir concentrations is unlikely, but cannot be ruled out - B, C	Theoretically, paroxetine exposure should be increased by lopinavir/ritonavir, but paroxetine exposure is decreased by unknown mechanism by other ritonavir boosted PIs - A, C	Theoretically, paroxetine exposure should be increased by saquinavir/ritonavir, but paroxetine exposure is decreased by unknown mechanism by other ritonavir boosted PIs - A, C	Theoretically, paroxetine exposure should be increased by saquinavir/ritonavir, but paroxetine exposure is decreased by unknown mechanism by other ritonavir boosted PIs - A, C

	atazanavir	darunavir	fosamprenavir	indinavir	lopinavir	nelfinavir	ritonavir	saquinavir	tipranavir
sertraline	Atazanavir without ritonavir may increase sertraline concentrations, azatanavir/ritonavir may decrease sertraline concentrations - A	Lower than usual dose of darunavir/ritonavir decrease sertraline concentrations by ~50% - B	Fosamprenavir/ritonavir may decrease sertraline concentrations - A	Indinavir alone may increase sertraline concentrations. Indinavir/ritonavir may decrease sertraline concentrations - A	Lopinavir/ritonavir may decrease sertraline concentrations - A	Nelfinavir may decrease sertraline concentration - A	May increase sertraline concentrations - A, B	May decrease sertraline concentration - A	May increase concentration of sertraline - A, B
trazodone	May increase trazodone concentration - A, B	May increase trazodone concentration - A, B	May increase trazodone concentrations with or without ritonavir - B	Indinavir increased trazodone AUC by 2.4-fold - B	Lopinavir may increase trazodone concentrations - A, B	May increase trazodone concentration - B	Ritonavir 200 mg BID increased trazodone AUC 2.4-fold - B	Contraindicated: life threatening arrhythmia	Ritonavir increases trazodone AUC 2.4-fold and tipranavir may increase trazodone concentration further - B
venlafaxine	May increase venlafaxine concentration, but no a priori dosage adjustment recommended - A	May increase venlafaxine concentration, but no a priori dosage adjustment recommended - A	May increase venlafaxine concentration, but no a priori dosage adjustment recommended - A	Venlafaxine decreased indinavir AUC by 28% and 36% decrease in Cmax. No change in concentration in venlafaxine or its metabolite - B	May increase venlafaxine concentration, but no a priori dosage adjustment recommended - A		May increase venlafaxine concentration, but no a priori dosage adjustment recommended - A	May increase venlafaxine concentration, but no a priori dosage adjustment recommended - A	May increase venlafaxine concentration, but no a priori dosage adjustment recommended - A
vilazodone	Vilazodone concentration may increase - A	May increase vilazodone concentrations - A	May increase concentrations of vilazodone - A	Indinavir alone may increase vilazodone concentrations - A	Lopinavir/ritonavir may decrease vilazodone - A	May decrease nelfinavir concentration and may increase vilazodone concentration	May increase vilazodone concentration - A	May increase vilazodone concentration - A	May increase vilazodone concentration - A

ADS & NRTIS

	abacavir	didanosine	emtricitabine	lamivudine	stavudine	tenofovir	zidovudine
amitriptyline							
bupropion							
citalopram							
clomipramine							
desipramine							
duloxetine							
doxepin							
escitalopram							
fluoxetine							
lithium						Potential for renal toxicity and Faconi's Syndrome - B	Potential for renal toxicity - A
mirtazapine							
nefazodone							
nortriptyline							
paroxetine							
sertraline							
trazodone							
venlafaxine							
vilazodone							

ADS & NNRTIS-IIS-EIS

	delavirdine	efavirenz	etravirine	nevirapine	rilpivirine	enfuvirtide (T20)	maraviroc	elvitegravir/ cobicistat/ tenofovir/ emtricitabine	raltegravir
	NNRTI	NNRTI	NNRTI	NNRTI	NNRTI		EI		II
amitriptyline	None	None	None	None	None	Limited data, but no known P450 reactions	None	May increase amitriptyline concentration - A	None
bupropion	None	Bupropion exposure decreased by 55%, but a metabolite is increased. Half-life is decreased. Recommendation is not to exceed standard maximal dosage - B,C	None	May decrease bupropion concentration - A	None	Limited data, but no known P450 reactions	None	May increase cobicistat concentration - A	None
citalopram	Citalopram is unlikely to affect delavirdine concentrations. Caution should be used as citalopram is extensively metabolized by P450 enzymes and this combination has NBS - A	Citalopram is unlikely to affect efavirenz concentrations. Caution should be used as citalopram is extensively metabolized by P450 enzymes and this combination has NBS. - A	May moderately decrease citalopram concentration - A	Citalopram is unlikely to affect nevirapine concentrations. Caution should be used as citalopram is extensively metabolized by P450 enzymes and this combination has NBS - A	None	Limited data, but no known P450 reactions	None	May increase citalopram concentration - A	None
clomipramine	May increase clomipramine concentration - A	May decrease clomipramine concentrations, but may also increase concentrations of active metabolite of clomipramine - A	May decrease clomipramine concentrations, but may also increase concentrations of active metabolite of clomipramine - A	May decrease clomipramine concentrations, but may also increase concentrations of active metabolite of clomipramine - A				May increase clomipramine concentration - A	

	delavirdine	efavirenz	etravirine	nevirapine	rilpivirine	enfuvirtide (T20)	maraviroc	elvitegravir/ cobicistat/ tenofovir/ emtricitabine	raltegravir
	NNRTI	NNRTI	NNRTI	NNRTI	NNRTI		EI		II
desipramine	None	None	None	None	None		None	May increase desipramine concentration - A	None
duloxetine	May increase duloxetine concentration - A							May increase duloxetine concentration - A	
doxepin	May increase doxepin concentrations and concentrations of active metabolite - A	None	None	None	None		None	May increase doxepin concentration - A	None
escitalopram	May seriously increase escitalopram concentration - A	May increase escitalopram concentration - A	Unknown	May decrease escitalopram concentration - A		Limited data, but no known P450 reactions		May increase escitalopram concentration - A	
fluoxetine	Delavirdine concentration increased by ~50% - B, C					Limited data, but no known P450 reactions		May increase elvitegravir concentration - A	
lithium						Limited data, but no known P450 reactions			
mirtazapine	May decrease mirtazapine concentrations - A	May decrease mirtazapine concentration - A	May decrease mirtazapine concentration - A	May decrease mirtazapine concentration - A		Limited data, but no known P450 reactions		May increase mirtazapine concentration - A	
nefazodone	Potential	Potential	Potential	Potential	None	Limited data, but no known P450 reactions	Potential		None
nortriptyline						Limited data, but no known P450 reactions		May increase nortriptyline concentration - A	
paroxetine						Limited data, but no known P450 reactions		May increase paroxetine concentration - A	

	delavirdine	efavirenz	etravirine	nevirapine	rilpivirine	enfuvirtide (T20)	maraviroc	elvitegravir/ cobicistat/ tenofovir/ emtricitabine	raltegravir
	NNRTI	NNRTI	NNRTI	NNRTI	NNRTI		EI		II
sertraline	May increase sertraline concentrations - A	No significant effect on efavirenz concentrations, but sertraline concentrations decreased - B,C	May decrease sertraline concentrations - A	May decrease sertraline concentrations - A		Limited data, but no known P450 reactions		May increase sertraline concentration. May increase cobicistat concentration - A	
trazodone	May increase trazodone concentrations and incidence of trazodone side effects - B	May decrease trazodone concentrations - A	May decrease trazodone concentration - A	May decrease trazodone concentrations - A		Limited data, but no known P450 reactions		May increase trazodone concentration - A	None
venlafaxine	May increase venlafaxine concentrations - A	May decrease venlafaxine concentration - A	May decrease venlafaxine concentration - A	May decrease venlafaxine concentration - A		Limited data, but no known P450 reactions	May decrease maraviroc concentration - A	May increase venlafaxine concentration - A	
vilazodone	May increase vilazodone concentration - A	May increase vilazodone concentration - A	Unknown	May decrease vilazodone concentration - A		Limited data, but no known P450 reactions		May increase vilazodone concentration - A	

ANTIPSYCHOTICS & PIS

	atazanavir	darunavir	fosamprenavir	indinavir	lopinavir	nelfinavir	ritonavir	saquinavir	tipranavir
aripiprazole	Atazanavir alone may increase aripiprazole concentrations - A	Darunavir may increase aripiprazole concentrations - A	Fosamprenavir alone may increase aripiprazole concentrations - A	Indinavir alone may increase aripiprazole concentrations - A	Lopinavir/ ritonavir may increase aripiprazole concentrations - A	Nelfinavir alone may increase aripiprazole concentrations - A	May increase aripiprazole concentrations 3-fold - A, B	Saquinavir/ ritonavir may seriously increase aripiprazole concentrations, prolong QTc - A, B	May seriously increase aripiprazole concentrations - A, B
asenapine	May increase asenapine concentrations - A	Darunavir may increase asenapine concentrations	Fosamprenavir alone may increase asenapine concentrations - A	Indinavir alone may increase asenapine concentrations - A	Unknown	Nelfinavir may increase asenapine concentration - A	May increase asenapine concentrations - A	May increase asenapine concentration - A	May increase asenapine concentration - A
chlorpromazine	Not studied, caution due to risk of QTc prolongation- A	Potential to moderately increase chlorpromazine concentrations - A	Potential to moderately increase chlorpromazine concentrations - A	Potential to moderately increase chlorpromazine concentrations - A	Not studied, caution due to risk of QTc prolongation- A	A	Potential to moderately increase chlorpromazine concentrations - A	Potential life-threatening cardiac arrhythmia - A	Potential to moderately increase chlorpromazine concentrations - A
clozapine	Not studied, potential to increase clozapine exposure. Caution due to prolongation of QTc interval - A	Not studied, potential to increase clozapine exposure -A	Potential to increase clozapine exposure -A		Not studied, potential to increase clozapine exposure. Caution due to prolongation of QTc interval - A	Not studied, potential to increase clozapine exposure -A	Increased concentration of clozapine with high-dose ritonavir, use low-dose - A, B		Tipranavir/ ritonavir may increase clozapine exposure - A
fluphenazine				Indinavir alone may have little effect of fluphenazine concentrations - A					
haloperidol	Atazanavir and atazanavir/ ritonavir may increase haloperidol exposure/ prolong QTc - A	Darunavir/ ritonavir may increase haloperidol exposure - A	May increase haloperidol exposure - A	May increase haloperidol exposure - A	Lopinavir/ ritonavir may increase haloperidol concentrations/ prolong QTc - A	May increase haloperidol exposure - A	Caution: may increase concentrations of haloperidol - A, B	Potential for life-threatening cardiac arrhythmia	Tipranavir/ ritonavir could increase haloperidol exposure - A

	atazanavir	darunavir	fosamprenavir	indinavir	lopinavir	nelfinavir	ritonavir	saquinavir	tipranavir
iloperidone	May increase iloperidone concentrations - A	Darunavir may increase iloperidone concentrations - A	Fosamprenavir alone may increase iloperidone concentrations - A	Indinavir alone may increase iloperidone concentrations - A	Lopinavir/ritonavir may increase iloperidone concentrations - A	Nelfinavir may increase iloperidone concentration - A	Ritonavir may increase iloperidone concentration - A	May increase iloperidone concentration - A	May increase iloperidone concentration - A
lurasidone	May increase lurasidone concentrations - A	Darunavir may increase lurasidone concentrations - A	Fosamprenavir alone may increase lurasidone concentrations - A	Indinavir alone may increase lurasidone concentrations - A	May increase lurasidone concentrations - A	Nelfinavir may increase lurasidone concentration - A	Ritonavir may increase lurasidone concentration - A	May increase lurasidone concentration - A	May increase lurasidone concentration - A
olanzapine	Atazanavir/ritonavir could decrease olanzapine exposure - A	Darunavir/ritonavir may decrease olanzapine exposure - A	May decrease olanzapine exposure - A	May decrease olanzapine exposure - A	Lopinavir/ritonavir may decrease olanzapine exposure	May decrease olanzapine exposure - A	Ritonavir decreases olanzapine concentrations by approximately 50% - C	May decrease olanzapine exposure - A	May decrease olanzapine exposure - A
paliperidone									
perphenazine							Concentrations of perphenazine may be increased - A, B		
pimozide									
quetiapine	Azatanavir/ritonavir increased adverse effects of quetiapine - C	May increase quetiapine exposure - A	May increase quetiapine exposure - A	May increase quetiapine exposure - A	May increase quetiapine exposure, prolong QTc - A	May increase quetiapine exposure - A	May increase quetiapine exposure - A	May increase quetiapine exposure, prolong QTc - A	May increase quetiapine exposure - A
risperidone		Darunavir/ritonavir may increase risperidone concentrations					May increase risperidone concentrations - A, B		
sulpiride									
thioridazine		May increase thioridazine concentrations - A, B					May increase thioridazine concentrations		
ziprasidone	May increase ziprasidone concentrations	Darunavir may increase ziprasidone concentrations - A	May increase ziprasidone concentrations - A	Indinavir alone may increase ziprasidone concentrations - A	May increase ziprasidone concentrations and prolong QT interval - A	May increase ziprasidone concentration - A	May increase ziprasidone concentration - A	Severe increase in QTc	Severe risk for prolonged QT interval and increase ziprasidone concentration - A

ANTIPSYCHOTICS & NRTIS

	abacavir	didanosine (ddI)	emtricitabine (FTC)	lamivudine (3TC)	stavudine (d4T)	tenofovir	zidovudine (AZT/ZDV)
aripiprazole							
asenapine							
chlorpromazine		Chewable didanosine reduces chlorpromazine absorption - B					
clozapine							Both drugs can cause blood dyscrasias - A
fluphenazine							
haloperidol							
iloperidone							
lurasidone							
olanzapine							
paliperidone							
perphenazine		Chewable didanosine may decrease absorption of perphenazine					
pimozide							
quetiapine							
risperidone							
sulpiride		Chewable didanosine may decrease bioavailability of sulpiride					
thioridazine							
ziprasidone							

ANTIPSYCHOTICS & NNRTIS-IIS-EIS

	delavirdine	efavirenz	etravirine	nevirapine	rilpivirine	enfuvirtide (T20)	maraviroc	elvitegravir/ cobicistat/ tenofovir/ emtricitabine	raltegravir
	NNRTI	NNRTI	NNRTI	NNRTI	NNRTI		EI		II
aripiprazole	May seriously increase aripiprazole concentration - A	Maybe slight increase in aripiprazole concentration - A	May decrease aripiprazole concentration - A	May decrease aripiprazole concentration - A		Limited data, but no known P450 reactions		May increase aripiprazole concentration - A	
asenapine	May seriously increase asenapine concentration - A	May increase asenapine concentration - A	May decrease asenapine concentration - A	May decrease asenapine concentration - A		Limited data, but no known P450 reactions		May increase asenapine concentration - A	
chlorpromazine	May increase chlorpromazine exposure - A				May prolong QTc/cause torsades de pointes - B	Limited data, but no known P450 reactions		May increase chlorpromazine concentration - A	
clozapine						Limited data, but no known P450 reactions		May increase clozapine concentration - A	
fluphenazine	Fluphenazine concentrations may be increased - A, B				May prolong the QTc - A	Limited data, but no known P450 reactions		May increase fluphenazine concentration - A	
haloperidol	May moderately increase haloperidol exposure - A	May decrease haloperidol exposure, but no need for a priori dose adjustment - A	May decrease haloperidol exposure, but no need for a priori dose adjustment - A	May decrease haloperidol exposure, but no need for a priori dose adjustment - A	May prolong QTc/cause torsades de pointes - A	Limited data, but no known P450 reactions	May increase maraviroc concentrations - A	May increase haloperidol concentration - A	
iloperidone	May increase iloperidone concentration - A	May increase iloperidone concentration - A	May decrease iloperidone concentration - A	May decrease iloperidone concentration - A		Limited data, but no known P450 reactions		May increase iloperidone concentration - A	
lurasidone	May increase lurasidone concentration - A	May increase lurasidone concentration - A	May decrease lurasidone concentration - A	May decrease lurasidone concentration - A		Limited data, but no known P450 reactions		May increase lurasidone concentration - A	
olanzapine		May decrease olanzapine exposure - A				Limited data, but no known P450 reactions		May increase olanzapine concentration - A	

	delavirdine	efavirenz	etravirine	nevirapine	rilpivirine	enfuvirtide (T20)	maraviroc	elvitegravir/ cobicistat/ tenofovir/ emtricitabine	raltegravir
	NNRTI	NNRTI	NNRTI	NNRTI	NNRTI		EI		II
paliperidone						Limited data, but no known P450 reactions			
perphenazine						Limited data, but no known P450 reactions		May increase perphenazine concentration - A	
pimozide			May decrease pimozide exposure - A	May decrease pimozide exposure - A	May further prolong QTc - A, B	Limited data, but no known P450 reactions		Risk for cardiac arrhythmia	
quetiapine	May increase quetiapine exposure - A	May decrease quetiapine exposure - A	May decrease quetiapine exposure - A	May decrease quetiapine exposure - A		Limited data, but no known P450 reactions		May increase quetiapine concentration - A	
risperidone						Limited data, but no known P450 reactions		May increase risperidone concentration - A	
sulpiride						Limited data, but no known P450 reactions			
thioridazine					May further prolong QTc - A,B	Limited data, but no known P450 reactions		May increase thioridazine concentration - A	
ziprasidone	May increase ziprasidone concentration - A	May increase ziprasidone concentration - A	May decrease ziprasidone concentration - A	May decrease ziprasidone concentration - A		Limited data, but no known P450 reactions		May increase ziprasidone concentration - A	

AEDS & PIS

	atazanavir	darunavir	fosamprenavir	indinavir	lopinavir	nelfinavir	ritonavir	saquinavir	tipranavir
carbamazepine	Increased carbamazepine concentrations, decreased atazanavir concentrations - A	Carbamazepine concentrations increased, dose should be reduced by 25-50% - B, C	Fosamprenavir concentration decreased - B	Decreased indinavir concentration, increased carbamazepine concentration - B, C	Lopinavir concentrations reduced, carbamazepine concentrations increased, no once daily dosing with lopinavir - B, C	Decrease in nelfinavir concentration - B, C	Caution: increase in carbamazepine concentration - B, C	Caution: decrease in saquinavir if taken without ritonavir, other interactions not studies - B	Caution: tipranavir concentrations decreased, carbamazepine concentrations increased
gabapentin									
lamotrigine	Decreased lamotrigine AUC, but same Cmax with atazanavir/ritonavir - C			May decrease serum concentrations of lamotrigine - A, B	Lamotrigine exposure decreased by 50% - C		May decrease lamotrigine concentrations - B		
oxcarbazepine	May decrease atazanavir or atazanavir/ritonavir exposure, should perform TDM - A	May decrease darunavir/ritonavir exposure, perform TDM for darunavir - A	May decrease fosamprenavir/ritonavir exposure, perform TDM for fosamprenavir - A	May decrease indinavir or indinavir/ritonavir exposure, perform TDM for indinavir	May decrease lopinavir/ritonavir exposure, perform TDM for lopinavir - A	May decrease nelfinavir exposure, perform TDM for nelfinavir - A	May decrease ritonavir exposure - A	May decrease saquinavir/ritonavir, perform TDM for saquinavir - A	May decrease tipranavir/ritonavir exposure, perform TDM for tipranavir - A
topiramate									
valproic acid	Atazanavir alone will not alter concentrations - A	Darunavir/ritonavir will decrease valproate concentrations - A	Fosamprenavir/ritonavir may decrease valproate concentrations - A	Indinavir/ritonavir may decrease valproate concentrations - A	May increase lopinavir concentrations and decrease valproate concentrations - B, C	Nelfinavir may decrease valproate concentrations - A	Concentrations of valproate may be increased - B	Atazanavir/ritonavir may decrease the plasma concentration of valproate - A	May decrease valproate concentrations - B

AEDS & NRTIS

	abacavir	didanosine (ddl)	emtricitabine (FTC)	lamivudine (3TC)	stavudine (d4T)	tenofovir	zidovudine (AZT/ZDV)
carbamazepine	Possible increase in carbamazepine concentrations, TDM for carbamazepine - A						May increase carbamazepine concentrations, risk for blood dyscrasia - A
gabapentin		Didanosine chewable tablets decrease bioavailability of gabapentin when taken at same time					
lamotrigine							
oxcarbazepine							
topiramate							
valproic acid							Zidovudine concentration increased by ~80% - B, C

AEDS & NNRTIS-IIS-EIS

	delavirdine	efavirenz	etravirine	nevirapine	rilpivirine	enfuvirtide (T20)	maraviroc	elvitegravir/ cobicistat/ tenofovir/ emtricitabine	raltegravir
	NNRTI	NNRTI	NNRTI	NNRTI	NNRTI		EI		II
carbamazepine	Dangerous decrease in delavirdine concentrations - B, C	Decreased efavirenz concentrations and decreased carbamazepine concentrations - B, C	Decrease in carbamazepine levels - B	May decrease carbamazepine concentrations - A	Decrease in rilpivirine levels - B	Limited data, but no known P450 reactions	Increase maraviroc dose to 600 mg BID, contraindicated with HD	May decrease elvitegravir concentration - A	May increase raltegravir concentrations - A
gabapentin						Limited data, but no known P450 reactions			
lamotrigine						Limited data, but no known P450 reactions			
oxcarbazepine	May slightly decrease delavirdine concentrations - A		May slightly decrease etravirine exposure - A	Potential to moderately decrease nevirapine exposure - A	Significant decreases in rilpivirine concentrations	Limited data, but no known P450 reactions	May moderately decrease maraviroc concentrations - A	May decrease elvitegravir and cobicistat concentrations - A	
topiramate						Limited data, but no known P450 reactions		May decrease elvitegravir and cobicistat concentrations - A	
valproic acid						Limited data, but no known P450 reactions		May increase cobicistat concentration. May decrease elvitegravir concentration - A	

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MISCELLANEOUS & PIS

	atazanavir	darunavir	fosamprenavir	indinavir	lopinavir	nelfinavir	ritonavir	saquinavir	tipranavir
buspirone	Buspirone levels may increase - A	Darunavir may increase buspirone levels - A	May increase buspirone concentrations - A	Indinavir alone may increase buspirone levels - A	Lopinavir/ritonavir may increase buspirone concentration - A	May increase buspirone concentrations - A	May increase buspirone concentrations - A	May increase buspirone concentrations - A	May increase buspirone concentration - A
benztropine	Unknown	Unknown	Unknown	Unknown	Unknown				
diphenhydramine					Lopinavir/ritonavir may decrease diphenhydramine levels - A		May increase diphenhydramine concentrations - A	May increase diphenhydramine concentrations - A	May increase diphenhydramine level - A
hydroxyzine							May increase hydroxyzine concentration - A		May increase hydroxyzine level - A
melatonin					Lopinavir/ritonavir may decrease melatonin levels			May increase melatonin concentration - A	
propranolol	May prolong PR interval (alternatively, atenolol may not interact) - A	May increase propranolol concentrations - A	Fosamprenavir/ritonavir may moderately increase propranolol exposure - A	Indinavir alone unlikely to increase propranolol exposure - A	Lopinavir/ritonavir and propranolol both prolong the PR interval. Propranolol concentrations may decrease as well - A		Both ritonavir and propranolol prolong PR interval and P450 interactions may increase propranolol concentrations - A	Both saquinavir and propranolol prolong PR interval. Also, P450 interactions could increase concentration of propranolol - A	May increase propranolol level -A

MISCELLANEOUS & NRTIS

	abacavir	didanosine (ddI)	emtricitabine (FTC)	lamivudine (3TC)	stavudine (d4T)	tenofovir	zidovudine (AZT/ZDV)
buspirone							
benztropine							
diphenhydramine							
hydroxyzine							
melatonin							
propranolol							

MISCELLANEOUS & NNRTIS-IIS-EIS

	delavirdine	efavirenz	etravirine	nevirapine	rilpivirine	enfuvirtide (T20)	maraviroc	elvitegravir/ cobicistat/ tenofovir/ emtricitabine	raltegravir
	NNRTI	NNRTI	NNRTI	NNRTI	NNRTI		EI		II
bupirone	May increase bupirone concentration - A	May increase bupirone concentration - A	May decrease bupirone concentration - A	May decrease bupirone concentration - A		Limited data, but no known P450 reactions		May increase bupirone concentration - A	
benztropine									
diphenhydramine	May increase diphenhydramine concentration and may increase delavirdine concentration - A	May mildly increase diphenhydramine concentration - A	May increase diphenhydramine concentration - A			Limited data, but no known P450 reactions		May decrease diphenhydramine concentration - A	
hydroxyzine	May increase hydroxyzine concentration and may increase delavirdine concentration - A					Limited data, but no known P450 reactions		May increase hydroxyzine concentration - A	
melatonin	May slightly increase melatonin concentration - A	May slightly increase melatonin concentration - A	May slightly increase melatonin concentration - A			Limited data, but no known P450 reactions			
propranolol	May slightly increase propranolol concentration - A	May slightly increase propranolol concentration - A	May slightly increase propranolol concentration - A			Limited data, but no known P450 reactions		May increase propranolol concentration - A	

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