

ANTIINFECTIVES

ANTI-INFECTIVES:
MEDICATIONS FOR TUBERCULOSIS

	INSTIs		NNRTIs		PIs	RTI	
	<ul style="list-style-type: none"> DOLUTEGRAVIR (<i>Tivicay, Triumeq, Juluca</i>) RALTEGRAVIR (<i>Isentress</i>) 	<ul style="list-style-type: none"> BICTEGRAVIR (<i>Biktarvy</i>) ELVITEGRAVIR/COBICISTAT (<i>Stribild, Genvoya</i>) 	<ul style="list-style-type: none"> DORAVIRINE (<i>Pifeltro, Delstrigo</i>) RILPIVIRINE (<i>Edurant, Complera, Odefsey, Juluca</i>) 	<ul style="list-style-type: none"> EFAVIRENZ (<i>Sustiva, Atripla</i>) ETRAVIRINE (<i>Intence</i>) NEVIRAPINE (<i>Viramune</i>) 	<ul style="list-style-type: none"> ATAZANAVIR (<i>Reyataz/Norvir, Evotaz</i>) DARUNAVIR (<i>Prezista/Norvir, Prezcobix, Symtuza</i>) LOPINAVIR (<i>Kaletra</i>) 	<ul style="list-style-type: none"> TENOFOVIR ALAFENAMIDE, TAF (<i>Descovy, Biktarvy, Genvoya, Odefsey, Symtuza</i>) 	<ul style="list-style-type: none"> TENOFOVIR DISOPROXIL, TDF (<i>Viread, Truvada, Atripla, Complera, Delstrigo, Stribild</i>) ABACAVIR (<i>Kivexa, Ziagen, Triumeq</i>)

RIFAMYCINS




<ul style="list-style-type: none"> Rifabutin (<i>Mycobutin</i>) 		Potential for ↓ INSTI and ↑ rifabutin (with elvitegravir/c)	Potential for ↓ doravirine. Use 100 mg BID.	Efavirenz: potential ↓ rifabutin. Use rifabutin 450-600 mg daily or 600 mg three times weekly.	Potential for ↑ rifabutin. Use rifabutin 150 mg daily.	Potential for ↓ TAF	
			Potential for ↓ rilivirine. Use 50 mg daily.	Etravirine, nevirapine			
<ul style="list-style-type: none"> Rifampin (<i>Rofact, Rifadin</i>) 	Potential for ↓ dolutegravir. Use 50 mg BID.	Potential for ↓ INSTI	Potential for ↓ NNRTI	Efavirenz	Potential for ↓ PI	Potential for ↓ TAF	
	Potential for ↓ raltegravir. Use 800 mg BID.			Etravirine, nevirapine			
<ul style="list-style-type: none"> Rifapentine (<i>Priftin</i>) 	Raltegravir, dolutegravir OK with	Potential for ↓ INSTI	Potential for ↓ NNRTI	Efavirenz ok with daily or once-weekly rifapentine	Potential for ↓ PI	Potential for ↓ TAF	

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	once weekly rifapentine.			Potential for ↓ etravirine, nevirapine			

OTHER ANTIMYCOBACTERIALS

<ul style="list-style-type: none"> Ethambutol, Isoniazid, Pyrazinamide 							
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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.

Mechanism of Drug Interactions, Management and Monitoring

Drug	Mechanism of Interaction	Main Interacting ARVs	Management	Monitoring
Rifampin Integrase Inhibitors	Rifampin is a potent CYP3A4 and P-gp inducer.	Integrase inhibitors: bictegravir, dolutegravir, elvitegravir, raltegravir	Increase dolutegravir to 50 mg BID and consider alternate therapy if patient is integrase inhibitor experienced. Increase raltegravir to 800 mg BID and use with caution in patients initiating ARV therapy with high initial viral loads due to risk of development of resistance. Do not coadminister with bictegravir or elvitegravir/cobicistat.	Watch for virologic breakthrough and efficacy of antiretroviral
		Protease inhibitors (atazanavir, darunavir, lopinavir)	Do not coadminister Increasing dosage of LPV/r to 800/200 BID overcomes induction effect of rifampin but may result in intolerable adverse effects	
		NNRTI: efavirenz	Product monograph suggests increasing to 800 mg efavirenz daily while on rifampin in patients >50 kg. However current guidelines suggest that standard 600 mg dose may be used with close monitoring of efavirenz levels and/or monitoring of virologic response.	Monitor for virologic response and efavirenz drug levels with TDM if available
		NNRTIs: doravirine, rilpivirine, efavirenz, etravirine, nevirapine NRTI: TAF	Do not coadminister due to failures of antiretroviral therapy.	

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Drug	Mechanism of Interaction	Main Interacting ARVs	Management	Monitoring
Rifabutin	Rifabutin is a substrate and moderate inducer of CYP3A4 and P-gp	Integrase inhibitors: bictegravir, elvitegravir/cobicistat	Avoid combination. Consider alternate integrase inhibitor if possible.	
	Induction of CYP3A4 (rifabutin) and inhibition of CYP3A4 (protease inhibitors)	All protease inhibitors	When administering rifabutin with a protease inhibitor reduce dose to 150 mg QD or 300 mg 3x/week	Rifabutin toxicity
	Induction of CYP3A4 (rifabutin and NNRTIs)	NNRTIs: doravirine, rilpivirine, efavirenz	Increase dose of doravirine to 100 mg BID Increase dose of rilpivirine to 50 mg QD (regular dose 25 mg) Increase rifabutin to 450-600 mg QD or 600 mg 3x/week when given with efavirenz Nevirapine or etravirine may be used without dose adjustment	Virologic response to antiretrovirals and antimycobacterial effect of rifabutin.
	Induction of P-gp	NRTI: tenofovir alafenamide	Do not coadminister. Consider using tenofovir disoproxil instead if possible	
Rifapentine	Rifapentine is a potent CYP3A4 and P-gp inducer	Integrase inhibitors: bictegravir, elvitegravir	Do not coadminister. Consider using raltegravir or possibly dolutegravir.	
	Induction of CYP3A4	All protease inhibitors	Do not coadminister.	
	Induction of CYP3A4	NNRTIs: doravirine, etravirine, nevirapine, rilpivirine	Do not coadminister. Consider using efavirenz if possible.	
	Induction of P-gp	NRTI: tenofovir alafenamide	Do not coadminister. Consider using tenofovir disoproxil instead if possible	

A MANAGEMENT TOOL FOR **HIV** DRUG-DRUG INTERACTIONS

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