Rifamycins Drug interactions

Drug Category	Drug / Drug Class	Nature of Interaction	Recommendations
Acid Blocking Agents	**Antacids**	↓ absorption of rifamycins	Give 1 hour prior to Antacid use
	Proton Pump Inhibitors (omeprazole, esomeprazole)	↓ blood levels of PPI's	Avoid Use
Antibiotics	**Macrolides (erythromycin, e.g.)**	May ↓ rifamycin levels in blood and ↑ levels of Clarithromycin and Erythromycin in blood	Use Azithromycin if possible
	Tetracyclines (doxycycline)	May ↓ levels of these antibiotic classes	Monitor infection closely, consider increasing dose, or use alternative antibiotic
	Fluoroquinolones		
	Linezolid		
Anticoagulants/ Antiplatelet agents	**Warfarin, Dabigatran, Rivaroxaban, Clopidogrel**	Antithrombotic activity ↓, greater risk of clotting	Monitor response closely and adjust dose as needed. Avoid use with rivaroxaban, dabigatran.
Anticonvulsants	**Phenytoin, Lamotrigine, autoinducing agents**	Metabolism of these agents may be harder to predict, subtherapeutic blood levels possible	Therapeutic Drug Monitoring encouraged, consider choosing alternative agent
Antidiabetic Medications	**Sulfonylureas (glyburide, glimepiride)**	May ↓ levels in blood, lessening the glycemic lowering effect	Monitor glycemic control closely, increase agents as needed
	Thiazolidinediones (pioglitazone)		
	Metformin		

Organized by Adam Bydlon
PharmD Candidate, class of 2016
Eshelman School of Pharmacy

Common Rifamycin Drug-Drug Interactions

Antifungals	**Azoles (itraconazole, posaconazole, ketoconazole, voriconazole)**	Blood levels may be subtherapeutic with any of the rifamycins	Fluconazole okay for concomitant use, but may require increased dose
Antihyperlipidemic agents (for hyperlipidemia)	**Statins (esp. simvastatin, fluvastatin)**	↓ cholesterol lowering effect	Use Pravastatin or Rosuvastatin
Antihypertensives	**Beta Blockers (propranolol, metoprolol)**	May ↓ BP lowering effect	Monitor blood pressure closely. Consider changing agents or increasing dose.
	ARB's / ACE-Inhibitors (-sartans, -prils)		
Antivirals	**Protease Inhibitors (ritonovir, lopinavir, saquinavir, etc.)**	↓ levels of PI's, and ↑ rifamycin concentrations in blood.	Avoid use of rifampin, rifapentine if possible. Rifabutin is the preferred alternative.
	Non-Nucleoside Reverse Transcriptase Inhibitors (delavirdine, nevirapine, efavirenz)	Drug levels may be ↓ and antiviral effect may be compromised	Avoid concurrent use of delaviridine. Increase doses of nevirapine and efavirenz with rifampin. No dose adjustment needed with rifabutin.
Cardiovascular agents	**Antiarrhythmics (Diltiazem, Verapamil, Digoxin, nifedipine)**	Rifamycins ↓ blood levels and may decrease arrhythmic control.	May need to increase dose or choose alternative agents
Hormonal Therapy	**Hormonal Contraceptives (ethinyl estradiol, norethindrone, etc.)**	↓ efficacy of hormonal contraceptives	Recommend patients of reproductive potential add a barrier method.
	Tamoxifen	Concurrent use with rifamycins will ↓ tamoxifen levels	Consider alternative therapy or non-rifamycin containing regimen
	Levothyroxine	Increased metabolic rate of thyroid replacement drugs	Monitor TSH levels and increase dosages as needed

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Immunosuppresants	**Cyclosporine**	Immunosuppressive effects may be decreased as early as 2 days after administration of rifamycin and may persist for some time after discontuing drug.	Monitor blood levels and response closely. Adjust doses as needed. Avoid combination if possible.
	Tacrolimus		
	mTOR inhibitors (everolimus, sirolimus, etc.)	↓ response to mTOR inhibitors.	Avoid combination if possible
Narcotics	**Opioids**	Metabolism of opioids (and opioid-related) may be increased with concurrent administration of rifamycins. Patients may report experiencing withdrawal symptoms.	May require increased dosages
Psychotropic medications	**Benzodiazepenes (diazepam, etc.)**	Blood levels may become subtherapeutic with coadministration	Increased doses or alternative agents may be required
	Antipsychotics (haloperidol, quetiapine, etc.)		
Steroidal products	**Prednisone, methylprednisolone, etc.**	Antiinflammatory or immunosuppressant qualities may be decreased.	Increased doses may be required

Isoniazid Drug interactions

Drug Category	Drug / Drug Class	Nature of Interaction	Recommendations
Psychotropic medications	**Benzodiazepenes (diazepam, etc.)**	↑ serum concertration of Benzo (some but not all)	↑ side effects to Benzo-Monitor therapy
	SSRI(citalopram)	may ↑increase the serum concentration of Citalopram	Limit citalopram dose to a maximum of 20 mg/day
	pimozide(Orap)	↑ serum concentration of pimozide	Avoid combination
	Antipsychotics (thioridazine)	↑ levels of Thioridazine	Avoid combination
	aripiprazole (Abilify)	↑ serum concentration of Abilify	↑ side effect to Abilify-monitor therapy
	disulfiram(Antabuse)	↑ serum levels of Isoniazid	monitor for isoniazid side effects
Anitcoagulatants	**Coumadin**	↑ serum concentration, hypoprothrombinemic effect of Warfarin may be increased	monitor INR
	Clopidogrel	↓decrease serum concentrations of clopidogrel	Monitor patients closely for evidence of a diminished response to clopidogrel. Consider therapy modification
Anticonvulsants	**Phenytoin, theophylline,**	↑Elevated hydantoin plasma concentrations with toxicity characterized by nystagmus, ataxia and other cerebellar signs may occur, especially in slow acetylators	Monitor therapy
	carbamazepine	↑Elevated carbamazepine plasma levels with toxicity characterized by somnolence, lethargy, nystagmus, ataxia, and other cerebellar symptoms may occur.	Consider therapy modification
Antacids	**Maalox, etc**	May decrease the absorption of Isoniazid.	Consider therapy modification
Pain medications	**Acetominophen**	↑ serum levels of acetominophen-liver toxicity	use sparingly-consider alternate therap
	Codeine,tramadol	↓ therapeutic effect to codeine,tramadol	monitor for change in pain control
	Chlorzoxazone(Parafon Forte	↑ serum level of Chlorzoxazone	Monitor therapy
Cardiovascular agents	**dofetilide(Tikosyn) for afib/aflutter**	↑ serum concentration of dofetilide	Monitor therapy
	metoprolol, nebivolol(Bystolic)	↑ serum level of metoprolol,nebivolol	consider therapy modification or monitor therapy
Steroidal Products	**prednisone, methylprednisolone**	↓ serum concentration of isoniazid	Monitor therapy
Oncology	**tamoxifen**	↓ serum concentraton of tamoxifen	Consider therapy modification
Antifungals	Azoles-Itraconazole, ketoconazole	↓ serum level of antifungal-	Monitor therapy

Ethambutol Drug interactions

Antacids	aluminum hydroxide containing antacid	0ral absorption of ethambutol may be reduced	avoid concurrent administration with aluminum hydroxide containing antacids for at least 4 hours following ethambutol administration

Avelox Drug interactions

Gastroinstestinal agents	**Carafate (sucaltrate)**	The antimicrobial effectiveness of Avelox Oral may be decreased by Carafate Oral	Consider therapy modification-separarate dosing by 2 hours before or 6 hours after
	Antacids	May decrease the absorption of Quinolone Antibiotics	Consider therapy modification
Cardiovascular agents	Quinapril	May decrease the serum concentration of Quinolone	Separate doses by at least 2 hours in order, Monitor for reduced efficacy of the quinolone
	antiarrhythmic agents	Arrhythmias resulting from the potential for additive QT prolongation,↓blood levels and may decrease arrhythmic control.	coadminister these agents with caution
Antiabortant	Mifepristone		
Anticonvulsants	chlorpromazine		
Antifungals	pentamidine		
Psychotropic medications	Orap(pimozide)		
	thioridazine		
	Geodon (ziprasidone)		
Antivirals	Didanosine	May decrease the serum concentration of Quinolone Antibiotics	Administer oral quinolones at least 2 hours before or 6 hours after didanosine
Anitcoagulatants	warfarin	↑anticoagulant effect	Monitor INR level
Iron Salts	**Ferrous sultate, etc**	May decrease the absorption of Quinolone Antibiotic with oral administration of both agents	Use Ferric Gluconate (Fergon) instead
Steroidal products	**Prednisone, methylprednisolone, etc.**	Corticosteroids (Systemic) May enhance the adverse/toxic effect of Quinolone Antibiotics. Specifically, the risk of tendonitis and tendon rupture may be increased.	Monitor therapy
Antidiabetic Medications		loss of blood sugar control may occur with quinolone	Monitor therapy
smoking cessation	**Chantix(Varenicline)**	Quinolone Antibiotics may increase the serum concentration of Varenicline, ↑side effects	Monitor therapy

Streptomycin Drug interactions

diuretics	furosemide	ototoxic effects are potentiated	monitor therapy
NSAIDS	**indomethacin, ketorolac**	Streptomycin concentrations may be elevated increasing the risk of adverse reactions	Avoid coadministration
Non-depolarizing muscle relaxants(hospitals)	**Succinylcholine** rocuronium	prolonged respiratory depression and apnea	Avoid concurrent use. If coadministration is necessary, use with caution and carefully titrate the non-depolarizing muscle relaxant dosage while closely monitoring
Antivirals	**Viread(tenofovir)**	↑ drug level of tenofovir, ↑ drug level streptomycin	monitor therapy
Antibiotics	**cephalosporins, capreomycin, amphotericin B**	↑ drug level of streptomycin	Monitor therapy
	penicillins	↓ drug level of streptomycin	monitor therapy
	vancomycin	↑ risk of nephrotoxicity	monitor serum levels of both agents and renal function
Cardiovascular agents/Antihypertensives	**loop dirutetics (furosemide(Lasix), torsemide (Demadex),ethacrynic acid (Edecrin)**	↑ drug level of streptomycin	monitor therapy