**All Interactions with Elvitegravir/ritonavir-boosted protease inhibitor**

| **Coadministered Drug** | **Dose of Drug** | **Dose of Elvitegravir/ritonavir-boosted protease inhibitor** | **Effect on Drug Levels** | **Effect on Elvitegravir/ritonavir-boosted protease inhibitor Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Amiodarone[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699) | - | - | Not studied; may increase amiodarone levels | - | Possible increased amiodarone effects (eg, hypotension, bradycardia, cardiac arrhythmias | Inhibition of CYP3A4 by ritonavir | Do not coadminister with saquinavir/ritonavir or tipranavir/ritonavir. Others use with caution; monitor amiodarone adverse effects. Consider obtaining ECG and monitoring amiodarone levels. |
| Amitriptyline  (Elavil) | - | - | Not studied; expected increase in amitriptyline levels | - | Possible increased risk of amitriptyline adverse effects | - | Initiate amitriptyline low dose and titrate according to response, adverse effects, and/or drug levels |
| Antacids[707](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#707)  (Maalox, Mylanta, Riopan, Milk of Magnesia, others) | - | - | - | Elvitegravir AUC decreased 40-50% if administered simultaneously with antacid. AUC decreased 15-20% if antacid administered 2 hours before or after elvitegravir. No change in AUC if antacid administered 4 hours before or after elvitegravir. | Potential for decreased effects of EVG if antacid administered within +/- 2 hours. | - | Separate administration of EVG and antacid by more than 2 hours. |
| Apixaban[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699) | - | - | Not studied; may increase apixaban levels | - | Potential for increased risk of bleeding | Inhibition of apixaban metabolism via CYP3A4 | Use alternative anticoagulant |
| Atorvastatin[717](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#717) | - | - | See individual PIs for specific effects. Atorvastatin levels increased 79% - 836% with ritonavir-boosted PIs. | - | Possible increased atorvastatin adverse effects | Inhibition of CYP450 3A4 by ritonavir | Do not coadminister with tipranavir. Use with caution with other PIs - initiate lowest dose and titrate slowly, monitor for adverse effects. Do not exceed 20 mg atorvastatin daily for darunavir. |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Elvitegravir/ritonavir-boosted protease inhibitor** | **Effect on Drug Levels** | **Effect on Elvitegravir/ritonavir-boosted protease inhibitor Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Avanafil[727](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#727)  (Stendra) | - | - | Not studied; may increase avanafil levels | No effect expected | - | - | Avoid coadministration |
| Boceprevir  (Victrelis) | - | - | Possible decreased boceprevir levels | - | Potential loss of anti-HCV activity | - | Do not coadminister |
| Bosentan[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699) | - | - | Not studied; likely increased levels of bosentan | - | Increased bosentan toxicity | Inhibition of bosentan metabolism via CYP3A4 | If patient has been on elvitegravir with a ritonavir boosted protease inhibitor for more than 10 days, start bosentan at 62.5 mg daily or every other day. If patient is currently on bosentan and requires the use of elvitegravir with a ritonavir boosted PI, stop bosentan for at least 36 hours prior to initiating ART. Wait 10 days and then resume bosentan starting with 62.5 mg daily or every other day. |
| Bupropion[705](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#705)  (Zyban)(Wellbutrin) | - | - | Not studied; may decrease bupropion levels | - | Potential decreased bupropion effectiveness | - | Monitor bupropion response and adverse effects, titrate dose. |
| Buspirone[707](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#707)  (Buspar) | - | - | Not studied; possible increased levels of buspirone | - | Possible increased risk of buspirone adverse effects | - | Start with low dose buspirone and titrate accordingly. Monitor for side effects. |
| Citalopram[705](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#705)  (Celexa) | - | - | Not studied; may decrease citalopram levels | - | Potential decreased antidepressant effectiveness | - | Monitor citalopram response and titrate dose |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Elvitegravir/ritonavir-boosted protease inhibitor** | **Effect on Drug Levels** | **Effect on Elvitegravir/ritonavir-boosted protease inhibitor Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Cyclosporine[721](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#721)  (Neoral, Sandimmune) | - | - | Not studied; ritonavir-boosted PI likely increases cyclosporine levels | - | Possible increased cyclosporine toxicity | Inhibition of CYP450 3A4 by ritonavir | Initiate lower dose of immunosuppressant; monitor concentrations and toxicity, consult with specialist, and adjust dose as necessary |
| Dabigatran[701](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#701)  (Pradaxa) | - | - | Not studied; may increase dabigatran levels | - | Potential for increased risk of bleeding | Inhibition of dabigatran metabolism via CYP3A4 | No adjustment necessary if CrCl > 50 ml/min. Avoid concomitant use if CrCl < 50ml/min. |
| Dasabuvir, Ombitasvir/Paritaprevir/Ritonavir[711](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#711)  (Viekira) | - | - | - | - | - | Duplicate pharmacokinetic boosters (ritonavir) and CYP3A4 inhibition | Do not coadminister |
| Desipramine  (Norpramin) | - | - | Expected increase in desipramine levels | - | Increased risk of desipramine adverse effects | - | Initiate lowest dose of desipramine and titrate according to efficacy, adverse effects and/or levels |
| Dexamethasone[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699)  (Decadron) | - | - | - | Not studied; may decrease levels of elvitegravir | Possible decreased elvitegravir effectiveness | - | Use with caution; monitor viral load if extended dexamethasone use. |
| Digoxin[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699)  (others)(Lanoxin) | - | - | Not studied; may increase digoxin levels | - | Possible increased risk of digoxin toxicity | - | Use with caution; monitor levels and digoxin adverse effects |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Elvitegravir/ritonavir-boosted protease inhibitor** | **Effect on Drug Levels** | **Effect on Elvitegravir/ritonavir-boosted protease inhibitor Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Diltiazem[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699)  (Dilacor, Tiazac, Cardizem) | - | - | Not studied; may increase levels of diltiazem | - | Potential increased risk of diltiazem adverse effects | - | If using elvitegravir with ritonavir-boosted atazanavir, decrease diltiazem dose 50% and monitor ECG. For elvitegravir with other ritonavir boosted protease inhibitors, use diltiazem with caution. |
| Disopyramide[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699)  (Norpace, Norpace CR) | - | - | Not studied; may increase disopyramide levels | - | Potential increased risk of disopyramide adverse effects | - | Use with caution; monitor for disopyramide toxicity |
| Doxepin[705](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#705)  (Silenor) | - | - | Not studied; may increase doxepin levels | - | Potential increase in doxepin-related adverse effects (e.g. sedation, dry mouth, etc.) | - | Start with lowest possible dose of doxepin. Monitor response and titrate dose. |
| Dronedarone[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699)  (Multaq) | - | - | Not studied; may increase dronedarone levels | - | Possible increased risk of dronedarone adverse effects | - | Do not coadminister |
| Escitalopram[705](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#705)  (Lexapro) | - | - | Not studied; may decrease escitalopram levels | - | Potential decreased antidepressant effectiveness | - | Monitor escitalopram response and titrate dose |
| Everolimus[727](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#727)  (Zortress, Afintor) | - | - | Not studied; may increase everolimus levels | No effect expected | Increased everolimus effects (e.g. excessive immunosuppression) | Inhibition of CYP450 3A4 by ritonavir | Monitor sirolimus levels and adjust dose as indicated |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Elvitegravir/ritonavir-boosted protease inhibitor** | **Effect on Drug Levels** | **Effect on Elvitegravir/ritonavir-boosted protease inhibitor Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Flecainide[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699)  (Tambocor) | - | - | Not studied; may increase flecainide levels. | - | Possible increased risk of flecainide adverse effects | - | Do not coadminister |
| Fluoxetine[705](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#705)  (Prozac) | - | - | Not studied; may decrease fluoxetine levels | - | Potential decreased antidepressant effectiveness | - | Monitor fluoxetine response and titrate dose |
| Fluticasone[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699)  (Advair, Flonase, Aerobid) | - | - | Not studied; likely increased levels of fluticasone | - | Possible increased fluticasone effects (eg, Cushing's syndrome, adrenal suppression) | Inhibition of fluticasone metabolism by CYP3A4 | Consider using alternative corticosteroid such as beclomethasone  *Alternative Agents*:  **Beclomethasone** |
| Fluvoxamine[705](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#705) | - | - | - | Not studied; may increase or decrease elvitegravir levels | Potential decreased elvitegravir effectiveness | - | Consider alternative antidepressant |
| Imipramine  (Tofranil) | - | - | Expected increased imipramine levels | - | Possible increased risk of imipramine adverse effects | - | Initiate imipramine at lowest dose. Monitor response and titrate according to efficacy, adverse effects, and/or drug levels. |
| Itraconazole[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699)  (Sporanox)(Sporanox) | - | - | Not studied; may increase itraconazole levels | Not studied; potential increased elvitegravir levels | Potential increased adverse effects from both elvitegravir and itraconazole | Inhibition of CYP3A4 | Consider keeping doses of itraconazole less than 200 mg/day when elvitegravir is boosted with ritonavir or cobicistat. |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Elvitegravir/ritonavir-boosted protease inhibitor** | **Effect on Drug Levels** | **Effect on Elvitegravir/ritonavir-boosted protease inhibitor Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Ledipasvir/sofosbuvir[713](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#713) | Ledipasvir 90 mg QD with sofosbuvir 400 mg QD | 150/150 | Ledipasvir AUC increased 96-113% with atazanavir/ritonavir. No significant effect expected with atazanavir/cobicistat, darunavir, fosamprenavir, lopinavir/ritonavir, saquinavir. Decreased ledipasvir/sofosbuvir levels expected with tipranavir/ritonavir. | With atazanavir/ritonavir, atazanavir AUC increased 33%; no significant effect expected for atazanavir/cobicistat, darunavir, fosamprenavir, lopinavir/ritonavir, saquinavir, or tipranavir. | Possible loss of anti-HCV activity if combined with tipranavir/ritonavir | - | No dose adjustment necessary; monitor for tenofovir toxicity if tenofovir included in the regimen. |
| Lidocaine[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699)  (Xylocaine) | - | - | Not studied; may increase effects of lidocaine | - | Potential increased risk of lidocaine adverse effects | - | Do not coadminister with saquinavir/ritonavir. Use with caution with other protease inhibitors; monitor for lidocaine toxicity. |
| Lovastatin[719](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#719)  (Mevacor) | - | - | Increased lovastatin levels | - | Increased risk of lovastatin adverse effects (rhabdomyolysis, etc.) | - | Do not coadminister  *Alternative Agents*:  **Atorvastatin Pravastatin** |
| Methadone[727](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#727)  (Dolophine) | - | - | Methadone AUC decreased 19-53% when co-administered with ritonavir-boosted protease inhibitors. | No effect expected | Potential decreased methadone efficacy | - | Monitor pain control and signs of opioid withdrawl. Dose adjust accordingly. |
| Methylprednisolone[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699)  (Solu-medrol, Depo-medrol) | - | - | Not studied; may increase levels of methyprednisolone | - | Possible increased risk of adrenal insufficiency and Cushing's syndrome | - | Do not co-administer |
| Mexiletine[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699) | - | - | Not studied; may increase levels of mexiletine | - | Potential increased risk of mexiletine adverse effects | - | Use with caution; monitor for mexiletine toxicity |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Elvitegravir/ritonavir-boosted protease inhibitor** | **Effect on Drug Levels** | **Effect on Elvitegravir/ritonavir-boosted protease inhibitor Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Norgestimate/ethinyl estradiol | - | - | Not studied; possible decreased levels of ethinyl estradiol and norethindrone. | No clinically significant effect on antiretrovirals expected. | Possible loss of hormonal contraceptive efficacy | - | With atazanavir/ritonavir, oral contraceptive should contain at least 35 mcg of ethinyl estradiol and only norethindrone has been studied. For other ritonavir boosted PIs recommend alternative or additional contraceptive method. |
| Nortriptyline  (Pamelor) | - | - | Expected increased nortriptyline levels | - | Possible increased risk of nortriptyline adverse effects | - | Initiate nortriptyline at lowest dose. Monitor response and titrate according to efficacy, adverse effects, and/or drug levels. |
| Paroxetine[705](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#705)  (Paxil)(Paxil) | - | - | Not studied; may decrease paroxetine levels | - | Potential decreased antidepressant effectiveness | - | Monitor paroxetine response and titrate dose |
| Pitavastatin[603](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#603)  (Livalo) | - | - | Studied with darunavir/ritonavir (pitavastatin AUC decreased 26%), and lopinavir/ritonavir (pitavastatin AUC decreased 20%). | No expected effect on ARV levels | Possible decreased pitavastatin efficacy | - | No dosage adjustment necessary; monitor and titrate to effect. |
| Posaconazole[519](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#519),[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699)  (Noxafil) | - | - | - | Not studied; may increase elvitegravir levels | Potential increased elvitegravir adverse effects | - | Monitor elvitegravir adverse effects |
| Prednisolone  (others) | - | - | Not studied; may increase prednisolone levels | - | Possibly increased prednisolone effects (adrenal insufficiency, Cushing’s syndrome). | - | Do not coadminister |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Elvitegravir/ritonavir-boosted protease inhibitor** | **Effect on Drug Levels** | **Effect on Elvitegravir/ritonavir-boosted protease inhibitor Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Propafenone[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699)  (Rythmol) | - | - | Not studied; may increase propafenone levels | - | Potential increased risk of propafenone adverse effects | - | Do not coadminister with saquinavir, tipranavir, or fosamprenavir. Use with other PIs with caution; monitor for propafenone toxicity |
| Quetiapine  (Seroquel) | - | - | Not studied; potential increased quetiapine AUC | - | Possible increased risk of quetiapine adverse effects | - | For patients currently on elvitegravir/cobicistat: initiate quetiapine at lowest possible dose. Titrate accordingly and monitor for adverse effects. If patient already on quetiapine and requiring new elvitegravir/cobicistat: reduce queitapine to 1/6 of original dose. Titrate and monitor efficacy and adverse effects |
| Quinidine[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699)  (others)(Quindex) | - | - | Not studied; may increase levels of quinidine | - | Possible increased quinidine effects (e.g. cardiac arrhythmias) | Inhibition of CYP450 3A4 by ritonavir | Use with caution; monitor for quinidine toxicity |
| Rifabutin[697](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#697)  (Mycobutin) | - | - | Increased AUC of 25-O-desacetyl-rifabutin (metabolite) by 951% | - | Increased rifabutin adverse effects (e.g. uveitis) | Inhibition of CYP450 3A4 by ritonavir | Decrease rifabutin dose to 150 mg daily or 300 mg three times weekly |
| Rifampin[639](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#639)  (Rifampicin)(Rifadin) | - | - | - | Expected significant decrease in elvitegravir, cobicistat, and protease inhibitor levels | Potential loss of antiretroviral efficacy | Induction of CYP3A4 by rifampin | Do not coadminister  *Alternative Agents*:  **Rifabutin** |
| Rifapentine  (Priftin) | - | - | - | Expected significant decrease in elvitegravir and cobicistat levels | Potential loss of antiretroviral efficacy | - | Do not coadminister |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Elvitegravir/ritonavir-boosted protease inhibitor** | **Effect on Drug Levels** | **Effect on Elvitegravir/ritonavir-boosted protease inhibitor Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Rivaroxaban[703](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#703)  (Xarelto) | - | - | Not studied; may increase rivaroxaban levels | - | Potential for increased risk of bleeding | Inhibition of rivaroxaban metabolism via CYP3A4 | Avoid concomitant use; use alternative anticoagulant |
| Rosuvastatin[723](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#723)  (Crestor) | - | - | Atazanavir/ritonavir AUC increases 3-fold. Lopinavir/ritonavir increases AUC 108%. Darunavir/ritonavir increases AUC 48%. Tipranavir/ritonavir increases AUC 26%. Rosuvastatin Cmax increased 123-700% when combined with above listed agents. | No effect expected | Increased rosuvastatin effects; potential increased risk of myopathy | Inhibition of CYP450 3A4 by ritonavir | Initiate rosuvastatin at lowest dose and titrate carefully. Monitor for adverse effects. Do not exceed 10mg rosuvastatin daily if administering with lopinavir/ritonavir or atazanavir/ritonavir. |
| Sertraline[705](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#705)  (Zoloft)(Zoloft) | - | - | Not studied; may decrease sertraline levels | - | Potential decreased antidepressant effectiveness | - | Monitor sertraline response and titrate dose |
| Sildenafil[727](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#727)  (Viagra) | - | - | Sildenafil levels increased when co-administered with boosted protease inhibitors | No effect expected | Increased sildenafil effects (eg, hypotension, priapism) | Inhibition of CYP450 3A4 by ritonavir | For erectile dysfunction, initiate sildenafil 25 mg every 48 hours and monitor for adverse effects. Manufacturer recommends not to exceed dose of 25 mg every 48 hours. Do not coadminister if using sildenafil for pulmonary arterial hypertension. |
| Simeprevir[679](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#679)  (Olysio) | 150 mg | - | Studied with darunavir and ritonavir. Expected increases in AUC 159% - 618% | Studied with darunavir and ritonavir, increases in protease inhibitor expected. | Increased simeprevir adverse effects | - | Do not coadminister |
| Simvastatin[725](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#725)  (Zocor) | - | - | Not studied with PIs used with elvitegravir/ritonavir. Significant increase in simvastatin levels expected. | No effect expected | Possible increased risk of simvastatin adverse effects (e.g. myopathy) | Inhibition of CYP450 3A4 by ritonavir | Do not coadminister |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Elvitegravir/ritonavir-boosted protease inhibitor** | **Effect on Drug Levels** | **Effect on Elvitegravir/ritonavir-boosted protease inhibitor Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Sirolimus[727](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#727)  (Rapamycin)(Rapamune) | - | - | Not studied; may increase sirolimus levels | No effect expected | Increased sirolimus effects (eg, excessive immunosuppression) | Inhibition of CYP450 3A4 by ritonavir | Monitor and adjust sirolimus dose as indicated |
| St. John's Wort[691](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#691)  (Hypericum perforatum) | - | - | - | Expected decrease in elvitegravir, cobicistat, and protease inhibitor levels | Potentially decreased antiretroviral effects and efficacy | Induction of CYP450 3A4 by St. John's Wort | Do not coadminister |
| Tacrolimus[727](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#727)  (Prograf) | - | - | Not studied; may increase tacrolimus levels | No effect expected | Increased tacrolimus effects (increased immunosuppression) | Inhibition of CYP450 3A4 by ritonavir | Monitor and adjust tacrolimus as indicated |
| Tadalafil[731](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#731),[727](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#727) | - | - | Tadalafil levels increased when administered with ritonavir-boosted protease inhibitors. | No effect expected | Increased tadalafil effects (e.g. hypotension, priapism) | Inhibition of CYP450 3A4 by ritonavir | If initiating tadalafil for pulmonary arterial hypertension (PAH) in a patient already taking elvitegravir/ritonavir/PI for >1 week: start tadalafil 20 mg once daily and increase to 40 mg as tolerated. If patient with PAH requires initiation of elvitegravir/ritonavir/PI: Stop tadalafil 24 hours prior to starting ART. Wait one week, then initiate tadalafil at 20 mg orally once daily. May increase to 40 mg as tolerated. For erectile dysfunction initiate tadalafil 5 mg dose do not exceed 10 mg in 72 hours. |
| Ticagrelor[705](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#705)  (Brilinta) | - | - | Not studied; may increase ticagrelor levels | - | Potential for increased risk of bleeding | Inhibition of ticagrelor metabolism via CYP3A4 | Avoid concomitant use; use alternative antiplatelet agent |
| Trazodone[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699)  (Desyrel)(Desyrel) | - | - | Not studied; may increase trazodone levels | - | Potential increase in trazodone effects (e.g. sedation) | - | Start with lowest dose of trazodone and titrate to response. |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Elvitegravir/ritonavir-boosted protease inhibitor** | **Effect on Drug Levels** | **Effect on Elvitegravir/ritonavir-boosted protease inhibitor Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Triamcinolone[707](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#707) | - | - | Not studied; may increase triamcinolone levels | - | Possible increased risk of adrenal insufficiency and Cushing's syndrome | - | Do not coadminister |
| Vardenafil[727](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#727) | - | - | Not studied; may increase vardenafil levels | No effect expected | Possible increased vardenafil effects (e.g. hypotension, priapism) | Inhibition of CYP450 3A4 by ritonavir | Initiate vardenafil 2.5 mg every 72 hours and monitor for adverse effects |
| Verapamil[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699)  (Isoptin, Verelan, Calan) | - | - | Not studied; may increase levels of verapamil | - | Potential increased risk of verapamil adverse effects | - | Use with caution and monitor ECG |
| Vorapaxar[705](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#705)  (Zontivity) | - | - | Not studied; may increase vorapaxar levels | - | Potential for increased risk of bleeding | Inhibition of vorapaxar metabolism via CYP3A4 | Avoid concomitant use; use alternative antiplatelet agent |
| Voriconazole[515](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#515),[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699)  (VFend)(VFend) | - | - | Not studied; voriconazole levels reduced up to 39% when administered with ritonavir-boosted protease inhibitors | Not studied; may increase elvitegravir levels | Possible decreased antifungal effectiveness | - | Weigh risks and benefits of using combination; consider monitoring voriconazole levels if used. |
| Warfarin[699](http://arv.ucsf.edu/insite?page=ar-00-02&param=261&post=4#699)  (Coumadin) | - | - | Not studied; may increase warfarin levels | - | Potential increased risk of bleeding | - | Monitor INR and adjust warfarin dose |
| "-" indicates that there are no data available | | | | | | | |

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| 515: | Reyataz [package insert]. Princeton, NJ: Bristol-Myers Squibb Company, March 2012. |
| 519: | Krishna G, Moton A, Ma, L, et al. Effects of oral posaconazole on the pharmacokinetics of atazanavir alone and with ritonavir or with efavirenz in healthy adult volunteers. J Acquir Immune Defic Syndr 2009; 51: 437-444. |
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