**All Interactions with Efavirenz (Sustiva)**

| **Coadministered Drug** | **Dose of Drug** | **Dose of Efavirenz** | **Effect on Drug Levels** | **Effect on Efavirenz Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Amprenavir[94](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#94)  (APV)(Agenerase) | - | - | Amprenavir AUC: decreased 24%; Cmax: decreased 33%; Cmin: decreased 43% | Not studied | Decreased amprenavir effects | Induction of CYP450 3A4 by efavirenz | Dose adjustment not established |
| Amprenavir[94](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#94),[62](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#62)  (APV)(Agenerase) | 1200 mg BID | 600 mg QD | Amprenavir AUC: decreased 24%; Cmax: decreased 33%; Cmin: decreased 43% | Not studied | Decreased amprenavir effects | Induction of CYP450 3A4 by efavirenz | Increase amprenavir dose to 1200 mg TID when used as single PI; use combination amprenavir 1200 mg BID with ritonavir 200 mg BID |
| Amprenavir[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90),[91](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#91),[112](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#112)  (APV)(Agenerase) | 1200 mg BID | 600 mg QD | Decreased mean amprenavir levels | Not studied | Decreased amprenavir effects | Induction of CYP450 3A4 by efavirenz | May consider adding ritonavir or nelfinavir |
| Amprenavir[94](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#94)  (APV)(Agenerase) | 1200 mg BID | 600 mg QD | AUC: decreased 24%; Cmax: decreased 33%; Cmin: decreased 43% | Not studied | Decreased amprenavir effects | Induction of CYP450 3A4 by efavirenz | Dose adjustment not established |
| Amprenavir[114](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#114)  (APV)(Agenerase) | 1200 mg QD with 200 mg ritonavir QD on day 1, then 300 mg ritonavir on days 2-15 | 600 mg QD on days 2-15 | No significant change | Not studied | - | Inhibition of CYP450 3A4 by ritonavir | No dose adjustment necessary |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Efavirenz** | **Effect on Drug Levels** | **Effect on Efavirenz Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Amprenavir[121](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#121)  (APV)(Agenerase) | 600 mg BID with ritonavir 100 mg BID | 600 mg QD added to stable amprenavir/ritonavir regimen | Amprenavir AUC: decreased 40%; Cmax: decreased 42%; Cmin: decreased 29%; Ritonavir AUC: decreased 58%; Cmax: decreased 57%; Cmin: decreased 47% (compared to amprenavir 600 mb BID and ritonavir 100 mg BID) | Not studied | When amprenavir and ritonavir are used with efavirenz, ritonavir is able to overcome the efavirenz induction so amprenavir levels are well above those of amprenavir alone | Induction of CYP450 3A4 by efavirenz | No dose adjustment necessary |
| Antacids[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Maalox, Mylanta, Riopan, Milk of Magnesia, others) | 30 mL x 1 dose | 400 mg x 1 dose | - | No significant change | - | - | No dose adjustment necessary |
| Astemizole[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Hismanal) | - | - | Not studied; may increase astemizole levels | - | Increased astemizole effects (eg, cardiac arrhythmias) | Inhibition of CYP450 3A4 by efavirenz | Do not coadminister  *Alternative Agents*:  **Cetirizine Fexofenadine Loratadine** |
| Atazanavir[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (ATV)(Reyataz) | - | - | - | - | Decreased atazanavir effects | Induction of CYP450 3A4 by efavirenz | Increase dose to 300 mg atazanavir with 100 mg ritonavir taken at the same time (boosted atazanavir).Dose adjustments not established for treatment experienced patients. |
| Atazanavir[100](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#100),  (ATV)(Reyataz) | 400 mg QD on days 1-20 | 600 mg QD on days 7-20 | Atazanavir AUC: decreased 74%; Cmax: decreased 59%; Cmin: decreased 93%; half-life: decreased 27% | Not studied | Decreased atazanavir effects | Induction of CYP450 3A4 by efavirenz | Dose adjustment not established |
| Atazanavir[101](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#101)  (ATV)(Reyataz) | 400 mg QD on days 1-28 | 600 mg QD with ritonavir 200 mg on days 15-28 | Atazanavir AUC: increased 241%; Cmax: increased 124%; Cmin: increased 671%; half-life: increased 79% | Not studied | Increased atazanavir effects | Inhibition of CYP450 3A4 by ritonavir | Dose adjustment not established |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Efavirenz** | **Effect on Drug Levels** | **Effect on Efavirenz Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Atazanavir[4](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#4),  (ATV)(Reyataz) | 400 mg QD on days 1-6 then 300 mg with ritonavir 100 mg QD on days 7-20 | 600 mg QD x days 7-20 | Atazanavir (all values compared to atazanavir 400 mg QD) AUC: increased 39% ; Cmax: no significant change; Cmin: increased 48% | Not studied | Increased atazanavir effects | Inhibition of P450 3A4 by ritonavir | No dose adjustment necessary |
| Atazanavir[4](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#4)  (ATV)(Reyataz) | 600 mg QD on days 7-20 | 600 mg QD on days 7-20 | Atazanavir (all values compared to atazanavir 400 mg QD) AUC: decreased 21%; Cmax: no significant change; Cmin: decreased 59% | Not studied | Decreased atazanavir effects | Induction of P450 3A4 by efavirenz | Dose adjustment not established |
| Atorvastatin[213](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#213) | 10 mg QD on days 0-3 and 15-18 | 600 mg QD on days 4-18 | Atorvastatin AUC: decreased 43%; Atorvastatin and metabolites AUC: decreased 34% | No significant change | Decreased lipid effects | Induction of CYP450 3A4 by efavirenz | May need to increase atorvastatin dose |
| Atovaquone[487](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#487)  (Mepron) | 250 mg with 100 mg proguanil x 1 | 600 mg QHS | Atovaquone AUC: decreased 75%; Cmax: decreased 44% | - | Potentially compromised antimalarial activity | Increased atovaquone glucuronidation; induction of CYP450 3A4 by efavirenz | Dose adjustment not established |
| Azithromycin[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Zithromax) | 600 mg x 1 dose | 400 mg x 7 days | Azithromycin AUC: no significant change; Cmax: increased 22% | No significant change | - | - | No dose adjustment necessary |
| Boceprevir[569](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#569)  (Victrelis) | 800 mg TID x 6 days | 600 mg QD x 16 days | Boceprevir AUC: decreased 19%; Cmin: decreased 44% | Efavirenz AUC: increased 20% | Potentially decreased boceprevir effects | - | Avoid combination  *Alternative Agents*:  **Telaprevir** |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Efavirenz** | **Effect on Drug Levels** | **Effect on Efavirenz Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Buprenorphine[289](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#289)  (Suboxone)(Buprenex) | stable dose for at least 2 weeks | 600 mg QD x 15 d | Buprenorphine AUC: decreased 49%; Cmax: decreased 45%, Cmin: decreased 50%; half-life: decreased 29% | No significant change | Possible decreased buprenorphine effects | - | Monitor for signs and symptoms of opioid withdrawal; some patients may need an increase in the buprenorphine dose, though study patients did not go into opioid withdrawal |
| Bupropion[165](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#165)  (Wellbutrin, Zyban)(Wellbutrin) | 150 mg SR x 1 | 600 mg QHS | Bupropion AUC: decreased 55%; Cmax: decreased 34%; half-life: decreased 46% | - | Decreased bupropion effects | Induction of CYP 2B6 by efavirenz | Monitor for signs and symptoms of depression and titrate bupropion to effect |
| Carbamazepine[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (others)(Tegretol) | - | - | Not studied; may decrease carbamazepine levels | Not studied; may decrease efavirenz levels | Decreased efavirenz and carbamazepine effects | Induction of CYP450 3A4 by both drugs | Avoid combination if possible; consider alternative agents; monitor carbamazepine levels and adjust as indicated  *Alternative Agents*:  **Gabapentin Lamotrigine Tiagabine Topiramate** |
| Carbamazepine[290](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#290)  (others)(Tegretol) | 200 mg QD on days 1-3, 200 mg BID on days 4-6, 400 mg QD thereafter | 600 mg QD on days 1-35 | Carbamazepine AUC: decreased 27%; Cmax: decreased 20%; Cmin: decreased 35% | Efavirenz AUC: decreased 36%; Cmax: decreased 21%; Cmin: decreased 47% | Decreased efavirenz and carbamazepine levels | Induction of CYP450 by efavirenz and carbamazepine | Avoid combination |
| Cetirizine[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Zyrtec) | 10 mg x 1 dose | 600 mg x 10 days | Cetirizine Cmax: decreased 24% | No significant change | - | - | No dose adjustment necessary |
| Cisapride[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Propulsid) | - | - | Not studied; may increase cisapride levels | - | Increased cisapride effects (eg, cardiac arrhythmias) | - | Do not coadminister  *Alternative Agents*:  **Metoclopramide** |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Efavirenz** | **Effect on Drug Levels** | **Effect on Efavirenz Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Clarithromycin[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Biaxin) | 500 mg Q12H x 7 days | 400 mg x 7 days | Clarithromycin AUC: decreased 39%; Cmax: decreased 26%;14-hydroxy clarithromycin AUC: increased 34%; Cmax: increased 49% | No significant change | - | Induction of CYP450 3A4 by efavirenz | Dose adjustment not established |
| Darunavir[409](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#409),[161](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#161)  (DRV)(Prezista) | 300 mg BID with ritonavir 100 mg BID | 600 mg QD | Darunavir Cmin: decreased 31%; Cmax: decreased 15% | Efavirenz AUC: increased 21%; Cmin: increased 17% | Possibly increased efavirenz effects | - | No dose adjustment necessary; use with caution and monitor for increased risk of efavirenz related side effects |
| Dasabuvir, Ombitasvir/Paritaprevir/Ritonavir[727](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#727)  (Viekira) | - | - | - | - | Significant GI and neurologic adverse events occurred, increase ALT | - | Do not coadminister |
| Didanosine[143](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#143)  (ddI)(Videx) | - | - | - | - | Potential early virologic failure | - | Use caution when coadministering tenofovir, didanosine and either efavirenz or nevirapine in treatment-naive patients |
| Diltiazem[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Dilacor, Tiazac, Cardizem) | 240 mg QD x 21 days | 600 mg QD x 15 days | Diltiazem AUC: decreased 69%; Cmax: decreased 60%; Cmin: decreased 63% | No significant change | Decreased diltiazem effects | Induction of CYP450 by efavirenz | May need to titrate diltiazem to clinical effect |
| Dolutegravir[641](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#641)  (Tivicay) | 50 mg QD | 600 mg QD | Dolutegravir AUC: decreased 57%; Cmin: decreased 75% | - | Potentially reduced dolutegravir effectiveness | - | If no INSTI resistance, increase dolutegravir dosage to 50 mg BID. If known or clinically suspected INSTI resistance, use alternative combination |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Efavirenz** | **Effect on Drug Levels** | **Effect on Efavirenz Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Elbasvir/grazoprevir[733](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#733),[727](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#727)  (Zepatier) | Elbasvir 50mg QD with grazoprevir 100 mg QD | 600 mg daily | Elbasvir AUC ↓ 54% Grazoprevir AUC ↓83% | - | - | Strong CYP3A4 induction by efavirenz | Contraindicated: Do not coadminister |
| Elvitegravir/cobicistat[639](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#639)  (Stribild) | - | - | - | - | Potentially decreased or increased elvitegravir, cobicistat and/or efavirenz effects | - | Do not coadminster |
| Ergotamine[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Cafergot, Ergot derivatives)(Cafergot, others) | - | - | Not studied; may increase ergotamine levels | - | Potentially increased ergotamine effects (eg, ergotism) | Variable inhibition and/or induction of CYP450 3A4 by efavirenz | Avoid coadministration if possible  *Alternative Agents*:  **Depending on indication, 5-HT agonists ("triptans"), prostaglandin F2, misoprostol or oxytocin may be an option. Clinical induction effects may lower clinical response to methylergonovine.** |
| Ethinyl estradiol/norethindrone acetate[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (others)(Ortho-Novum) | Ethinyl estradiol 50 mcg x 1 dose | 400 mg x 10 days | No significant change | No significant change | - | - | No dose adjustment necessary |
| Ethinyl estradiol/norgestimate[421](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#421)  (others)(Ortho Tri-Cyclen, Ortho Tri-Cyclen) | 0.025 mg ethinyl estradiol/0.25 mg norgestimate | 600 mg QHS | Ethinyl estradiol: no significant change; Norgestromin AUC: decreased 64%; Cmax: decreased 46%; Cmin: decrased 82% | - | Decreased effects of ethinyl estradiol and norgestimate | Induction of CYP450 3A4 by efavirenz | Do not coadminister; use other forms of birth control |
| Etravirine[407](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#407)  (ETR)(Intelence) | - | 600 mg QD | Etravirine AUC: decreased 41% | - | Decreased etravirine and efavirenz effects | Induction of CYP450 3A4 by etravirine and efavirenz | Do not coadminister |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Efavirenz** | **Effect on Drug Levels** | **Effect on Efavirenz Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Famotidine[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Pepcid) | 40 mg x 1 dose | 400 mg x 1 dose | - | No significant change | - | - | No dose adjustment necessary |
| Fluconazole[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Diflucan)(Diflucan) | 200 mg x 7 days | 400 mg x 7 days | No significant change | AUC: increased 16%; Cmax: no significant change | - | Inhibition of CYP450 3A4 by fluconazole | No dose adjustment necessary |
| Fosamprenavir[131](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#131)  (FPV)(Lexiva) | 1400 mg QD with 300 mg ritonavir x 2 weeks | 600 mg QD x 2 weeks | No significant change | Not studied | - | Inhibition of CYP450 3A4 by ritonavir compensating for CYP450 3A4 induction by efavirenz | No dose adjustment necessary |
| Fosamprenavir[130](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#130),[131](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#131),[129](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#129)  (FPV)(Lexiva) | 1400 mg QD with ritonavir 200 mg QD x 2 weeks | 600 mg QD x 2 weeks | Amprenavir Cmin: decreased 36%; Ritonavir AUC: decreased 31%; Cmin: decreased 40% | Not studied | Decreased amprenavir effects | Induction of CYP450 3A4 by efavirenz | Increase ritonavir dose to 300 mg when administered with fosamprenavir and efavirenz once daily |
| Fosamprenavir[130](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#130),[131](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#131)  (FPV)(Lexiva) | 700 mg BID with ritonavir 100 mg BID x 2 weeks | 600 mg QD x 2 weeks | No significant change | Not studied | - | - | No dose adjustment necessary |
| Fosamprenavir[128](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#128)  (FPV)(Lexiva) | 700 mg BID with ritonavir 100 mg BID x 28 days | 600 mg QD x 14 days | No significant change | Not studied | - | - | No dose adjustment necessary |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Efavirenz** | **Effect on Drug Levels** | **Effect on Efavirenz Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Fosamprenavir[128](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#128)  (FPV)(Lexiva) | 700 mg BID with ritonavir 200 mg BID x 28 days | 600 mg QD x 14 days | No significant change | Not studied | - | - | No dose adjustment necessary |
| Indinavir[16](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#16)  (IDV)(Crixivan) | 1000 mg TID x 10 days | 600 mg QD x 10 days | Indinavir AUC: decreased 33-46%; Cmax: decreased 29%; Cmin: decreased 39-57% | Not studied | Decreased indinavir effects | Induction of CYP450 3A4 by efavirenz | Do not coadminister. Increasing indinavir dose to 1000 mg Q8H may not be sufficient to compensate for interaction. |
| Indinavir[23](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#23)  (IDV)(Crixivan) | 800 mg indinavir/100 mg ritonavir Q12H x 29 days | 600 mg QD x 14 days | Indinavir AUC: decreased 19%; Cmin: decreased 48%; Cmax: decreased 13% | No significant change | Decreased indinavir effects | Induction of CYP450 3A4 by efavirenz | Increase indinavir to 1000 mg Q12H if dosed with ritonavir 100 mg Q12H |
| Indinavir[254](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#254),[16](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#16),[21](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#21),[22](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#22)  (IDV)(Crixivan) | 800 mg Q8H x 14 days | 200 mg QD x 14 days | Indinavir AUC: decreased 31-35%; Cmax: decreased 16% | No significant change | Decreased indinavir effects | Induction of CYP450 3A4 by efavirenz | Do not coadminister. Increasing indinavir dose to 1000 mg Q8H may not be sufficient to compensate for interaction. |
| Indinavir[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (IDV)(Crixivan) | 800 mg Q8H x 14 days | 200 mg x 14 days | Indinavir AUC: decreased 31%; Cmax: decreased 16% | No significant change | Decreased indinavir effects | Induction of CYP450 3A4 by efavirenz | Do not coadminister. Increasing indinavir dose to 1000 mg Q8H may not be sufficient to compensate for interaction. |
| Itraconazole[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Sporanox)(Sporanox) | 200 mg Q12H x 28 days | 600 mg x 14 days | Itraconazole AUC: decreased 39%; Cmax: decreased 37%; Cmin: decreased 44%; Hydroxyitraconazole AUC: decreased 37%; Cmax: decreased 35%; Cmin: decreased 43% | - | Decreased itraconazole effects | Induction of CYP450 3A4 by efavirenz | Do not coadminister |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Efavirenz** | **Effect on Drug Levels** | **Effect on Efavirenz Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Ketoconazole[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Nizoral) | - | - | Not studied; may decrease ketoconazole levels | - | Decreased ketoconazole effects | Induction of CYP450 3A4 by efavirenz | Do not coadminister |
| Lamivudine[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (3TC)(Epivir) | 150 mg Q12H x 14 days | 600 mg x 14 days | No significant change | Not studied | - | - | No dose adjustment necessary |
| Ledipasvir/sofosbuvir | Ledipasvir 90 mg with sofosbuvir 400 mg QD | 600 mg QD | Ledipasvir AUC, Cmin, Cmax – all ↓ 34% Sofosbuvir: no significant effect | - | - | Strong CYP3A4 induction by efavirenz | No dosage adjustment necessary |
| Levonorgestrel[449](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#449)  (Plan B) | 0.75 mg x 1 | 600 mg QHS | Levonorgestrel AUC: decreased 58%; Cmax: decreased 45%; Cmin: decreased 71%; half-life: decreased 47% | Not studied | Decreased levonorgestrel effects | Induction of levonorgestrel metabolism by efavirenz | Use backup form of birth control (e.g. barrier) |
| Lopinavir/ritonavir[80](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#80)  (LPV/r)(Kaletra) | 400 mg/100 mg BID | - | Lopinavir AUC: decreased 20-25%; Cmin: decreased 40-45% | No significant change | - | - | Increase dose of lopinavir/ritonavir to 533 mg/133 mg (4 capsules) BID with food |
| Lopinavir/ritonavir[681](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#681),[78](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#78)  (LPV/r)(Kaletra) | 400 mg/100 mg BID x 9 days | 600 mg QHS x 9 days | Lopinavir AUC: decreased 19%; Cmax: no significant change; Cmin: decreased 39%;Ritonavir AUC: no significant change; Cmax: no significant change | Efavirenz AUC: decreased 16%; Cmax: no significant change; Cmin: decreased 16% | Decreased lopinavir effects | Induction of CYP450 3A4 by efavirenz | Increase dose of lopinavir/ritonavir to 533 mg/133 mg (4 capsules) BID with food |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Efavirenz** | **Effect on Drug Levels** | **Effect on Efavirenz Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Lopinavir/ritonavir[158](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#158)  (LPV/r)(Kaletra) | 400/100 mg BID (tablet formulation) on days 1-15, then 600/150 mg BID on days 15-25 | 600 mg QHS on days 11-25 | Lopinavir AUC: increased 36%; Cmax: increased 36%; Cmin: increased 35% (compared to lopinavir 400/100 mg BID tablets without efavirenz)Ritonavir AUC: increased 78%; Cmax: increased 92%; Cmin: increased 60% (compared to ritonavir 150 mg BID without efavirenz) | Not studied | - | Increased levels due to formulation | No dose adjustment necessary |
| Lopinavir/ritonavir[120](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#120)  (LPV/r)(Kaletra) | 400/100 mg BID on days 1-14, then increased to 533/133 mg BID on 15-35 | 600 mg QD on days 1-35 | Lopinavir AUC: increased 46%; Cmax: increased 33%; Cmin: increased 141%; Ritonavir AUC: increased 48%; Cmax: increased 46%; Cmin: increased 63% (compared to lopinavir/ritonavir 400/100 mg BID) | Not studied | Increased lopinavir/ritonavir effects | Inhibition of CYP450 3A4 by lopinavir/ritonavir | Increase lopinavir/ritonavir to 533/133 mg BID when used with efavirenz |
| Lorazepam[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Ativan) | 2 mg x 1 dose | 600 mg x 10 days | Lorazepam AUC: no significant change; Cmax: increased 16% | - | - | - | No dose adjustment necessary |
| Maraviroc[2](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#2)  (MVC)(Selzentry) | 100 mg BID | 600 mg QD | Maraviroc AUC: decreased 45%; Cmax: decreased 51%; Cmin: decreased 45% | - | Decreased maraviroc effects | Induction of CYP450 3A4 by efavirenz | Increase maraviroc dose to 600 mg BID |
| Medroxyprogesterone acetate[393](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#393)  (Depo-Provera) | 150 mg | - | Progesterone levels: no significant change | Efavirenz AUC: no significant change | - | - | No dose adjustment necessary |
| Methadone[205](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#205),[209](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#209)  (Dolophine)(Dolophine) | - | 600 mg QD x 14 days | Methadone AUC: decreased 57%; Cmax: decreased 48% | Not studied | Decreased methadone effects (eg, withdrawal) | Induction of CYP450 3A4 by efavirenz | Monitor for signs and symptoms of methadone withdrawal; some patients may need an increase in the methadone dose |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Efavirenz** | **Effect on Drug Levels** | **Effect on Efavirenz Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Methadone[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Dolophine)(Dolophine) | 35-100 mg QD | 600 mg x 14-21 days | Methadone AUC: decreased 52%; Cmax: decreased 45% | - | Decreased methadone effects (eg, withdrawal) | Induction of CYP450 3A4 by efavirenz | Monitor for signs and symptoms of methadone withdrawal; some patients may need an increase in the methadone dose |
| Methadone[184](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#184)  (Dolophine)(Dolophine) | stable dose over period of 60 weeks | 600 mg QD over period of 60 weeks | Methadone AUC: decreased 39%; Cmax: decreased 33%; Cmin: decreased 44%EDDP (methadone metabolite) AUC: decreased 14.5%; Cmax: no significant change; Cmin: no significant change | - | Decreased methadone effects (eg, withdrawal) | Induction of methadone metabolism by efavirenz | Study patients required mean dose increase of 30% over period of 60 weeks |
| Midazolam[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Versed) | - | - | Not studied; may increase midazolam levels | - | Increased midazolam effects (eg, increased sedation, confusion, respiratory depression) | Inhibition of CYP450 3A4 by efavirenz | Parenteral midazolam can be used with caution when given as a single dose in a monitored situation for procedural sedation; chronic midazolam administration (oral or intravenous) should be avoided  *Alternative Agents*:  **Lorazepam** |
| Nelfinavir[24](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#24),[21](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#21),[70](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#70),[71](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#71)  (NFV)(Viracept) | 750 mg Q8H x 7 days | 600 mg QD x 7 days | Nelfinavir AUC: increased 20%; Cmax: increased 21%.M8 AUC: decreased 37%; Cmax: decreased 40% | No significant change | - | - | No dose adjustment necessary |
| Nelfinavir[156](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#156)  (NFV)(Viracept) | 750 mg TID | 600 mg QHS | Nelfinavir clearance: no significant changeM8 clearance: increased 43% | - | - | - | No dose adjustment necessary |
| Nevirapine[93](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#93)  (NVP)(Viramune) | 200 mg QD x 2 weeks, then 400 mg QD | 600 mg QD | No significant change | Efavirenz AUC: decreased 22%; Cmin: decreased 36% | Decreased efavirenz effects | Induction of CYP450 3A4 by nevirapine | Monitor and adjust therapy as indicated; may consider increasing efavirenz to 800 mg QD |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Efavirenz** | **Effect on Drug Levels** | **Effect on Efavirenz Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Phenobarbital[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Luminal, others)(Luminal) | - | - | - | Not studied; may decrease levels | Decreased efavirenz effects | Induction of CYP450 3A4 by phenobarbital | Avoid combination if possible; consider alternative agents; monitor phenobarbital levels and adjust as indicated  *Alternative Agents*:  **Gabapentin Lamotrigine Tiagabine Topiramate** |
| Phenytoin[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Dilantin)(Dilantin) | - | - | Not studied; may decrease phenytoin levels | Not studied; may decrease efavirenz levels | Decreased efavirenz and phenytoin effects | Induction of CYP450 3A4 by both drugs | Avoid combination if possible; consider alternative agents; monitor phenytoin levels and adjust as indicated  *Alternative Agents*:  **Gabapentin Lamotrigine Tiagabine Topiramate** |
| Posaconazole[499](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#499),[424](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#424)  (Noxafil) | 400 mg BID | 400 mg QD | Posaconazole AUC: decreased 50%; Cmax: decreased 45% | No significant change | Decreased posaconazole effects | Induction of UGT by efavirenz | Dose adjustment not established |
| Pravastatin[213](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#213)  (Pravachol)(Pravachol) | 40 mg QD on days 0-3 and 15-18 | 600 mg QD on days 4-18 | Pravastatin AUC: decreased 40% | No significant change | Decreased lipid effects | Induction of CYP450 3A4 by efavirenz | May need to increase pravastatin dose |
| Pravastatin[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Pravachol)(Pravachol) | 40 mg QD x 4 days | 600 mg QD x 15 days | Pravastatin AUC: decreased 44%; Cmax: decreased 32%; Cmin: decreased 19% | No significant change | Decreased pravastatin effects | Induction of CYP450 by efavirenz | May need to increase pravastatin dose |
| Prednisolone[426](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#426)  (others) | 20 mg x 1 | not stated | Prednisolone AUC: decreased 21% | - | Possibly increased prednisolone effects (adrenal insufficiency, Cushing’s syndrome). | - | No dose adjustment necessary |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Efavirenz** | **Effect on Drug Levels** | **Effect on Efavirenz Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Proguanil[487](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#487)  (Malarone) | 100 mg with 250 mg atovaquone x 1 | 600 mg QHS | Proguanil AUC: decreased 43%; Cmax: no significant change | - | - | Increased atovaquone glucuronidation; induction of CYP450 3A4 by efavirenz | Dose adjustment not established |
| Proguanil[545](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#545)  (Malarone)(Malarone) | 300 mg x 1 | 400 mg QD | Proguanil AUC: increased 113%; Cmax: increased 47%; Cycloguanil AUC: decreased 38%; Cmax: decreased 31% | - | Possibly decreased antimalarial effects | Possible inhibition of CYP450 2C19 by efavirenz; possible induction of P-gp by efavirenz | Dose adjustment not established |
| Raltegravir[3](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#3)  (RAL)(Isentress) | 400 mg x 1 | 600 mg QD | Raltegravir AUC: decreased 36%; Cmax: 36%; Cmin: decreased 21% | - | Possibly decreased raltegravir effects | - | No dose adjustment necessary |
| Raltegravir[436](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#436)  (RAL)(Isentress) | 400 mg x 1 | 600 mg x 14 d | Raltegravir AUC: decreased 36%; Cmin: decreased 21%; Cmax: decreased 36% | - | - | Induction of UGT1A1 by efavirenz | No dose adjustment necessary |
| Rifabutin  (Mycobutin)(Mycobutin) | 300 mg or 450 mg twice weekly | 600 mg QD | On 300 mg rifabutin twice weekly, rifabutin level 2 hours after dose: no significant change; rifabutin level 6 hours post dose: decreased 27%; on 450 mg twice weekly, rifabutin level 2 hours post dose: no significant change; rifabutin level 6 hours post dose: decreased 58%(all values compared to rifabutin alone) | Not studied | Possibly decreased rifabutin effects | Induction of CYP450 3A4 by efavirenz | Increase rifabutin to 450-600 mg QD |
| Rifabutin[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90),[345](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#345)  (Mycobutin)(Mycobutin) | 300 mg QD x 14 days | 600 mg x 14 days | Rifabutin AUC: decreased 38%; Cmax: decreased 32% | No significant change | Decreased rifabutin effects | Induction of CYP450 3A4 by efavirenz | Increase rifabutin to 450-600 mg QD |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Efavirenz** | **Effect on Drug Levels** | **Effect on Efavirenz Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Rifabutin[338](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#338)  (Mycobutin)(Mycobutin) | 600 mg twice weekly | 600 mg QD | Rifabutin AUC: no significant change; Cmax: no significant change (when compared to rifabutin 300 mg twice weekly without efavirenz) | Not studied | - | - | No dose adjustment necessary |
| Rifampin[357](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#357)  (Rifampicin)(Rifadin) | 600 mg QD x 14 days | 600 mg QD x 14 days | No significant change | Efavirenz AUC: decreased 22%; Cmax: decreased 24%; Cmin: decreased 25% | Decreased efavirenz effects | Induction of CYP450 3A4 by rifampin | Dose adjustment not established; may consider increasing efavirenz to 800 mg QD when used with rifampin  *Alternative Agents*:  **Rifabutin** |
| Rifampin[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90),[345](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#345)  (Rifampicin)(Rifadin) | 600 mg x 7 days | 600 mg x 7 days | - | Efavirenz AUC: decreased 26%; Cmax: decreased 20% | Decreased efavirenz effects | Induction of CYP450 3A4 by rifampin | Dose adjustment not established; may consider increasing efavirenz to 800 mg QD when used with rifampin  *Alternative Agents*:  **Rifabutin** |
| Rifapentine[681](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#681)  (Priftin)(Priftin) | 900 mg Q week | 600 mg QD | - | Efavirenz AUC: decreased 14%; Cmin: decreased 15% | - | - | No dose adjustment necessary |
| Ritonavir[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (RTV)(Norvir) | 500 mg Q12H x 8 days | 600 mg x 10 days | Ritonavir AUC: increased 18% after AM dose; Cmax: increased 24% after AM dose; AUC: no significant change after PM dose; Cmax: no significant change after PM dose | Efavirenz AUC: increased 21%; Cmax: no significant change | Increased efavirenz and ritonavir effects | Inhibition of CYP450 3A4 by both drugs | No dose adjustment necessary |
| Ritonavir[56](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#56)  (RTV)(Norvir) | Day 1: 300 mg Q12H; Day 2: 400mg Q12H; Days 3-10: 500 mg Q12H | 600 mg QD | Ritonavir AUC: increased 18% | Efavirenz AUC: increased 21% | Possible increased effects of both drugs | Inhibition of CYP450 3A4 by both drugs | May dose ritonavir at 500 mg BID when given with efavirenz; no dose adjustment required for efavirenz |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Efavirenz** | **Effect on Drug Levels** | **Effect on Efavirenz Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Saquinavir[75](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#75),[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (SQV)(Fortovase, Invirase) | 1200 mg (soft gel caps) Q8H x 10 days | 600 mg x 10 days | Saquinavir AUC: decreased 62%; Cmax: decreased 50% | Efavirenz AUC: decreased 12%; Cmax: decreased 13% | Decreased saquinavir effects | Induction of CYP450 3A4 by efavirenz | Consider adding ritonavir to saquinavir containing regimen |
| Saquinavir[50](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#50)  (SQV)(Fortovase, Invirase) | 400 mg (soft gel caps) BID with ritonavir 400 mg BID on day 1-10 | 600 mg QHS on day 10-24 | Saquinavir Cmin: decreased 10%; ritonavir Cmin: no significant change | No significant change | Not clinically significant | Induction of CYP450 3A4 by efavirenz | No dose adjustment necessary |
| Simeprevir[671](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#671)  (Olysio) | 150 mg QD x 14 days | 600 mg QD x 14 days | Simeprevir AUC: decreased 71%; Cmax: decreased 51%; Cmin: decreased 91% | Efavirenz Cmin: decreased 13% | Decreased effects of simeprevir | Induction of CYP450 by efavirenz | Do not coadminister |
| Simvastatin[213](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#213)  (Zocor)(Zocor) | 40 mg QD on days 0-3 and 15-18 | 600 mg QD on days 4-18 | Simvastatin AUC: decreased 58% | No significant change | Decreased lipid effects | Induction of CYP450 3A4 by efavirenz | May need to increase simvastatin dose |
| Simvastatin[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Zocor)(Zocor) | 40 mg QD x 4 days | 600 mg x 15 days | Simvastatin AUC: decreased 68%; Cmax: decreased 72%; Cmin: decreased 45% | No significant change | Decreased simvastatin effects | Induction of CYP450 by efavirenz | May need to increase simvastatin; Given interaction potential between simvastatin and protease inhibitors, consider avoiding efavirenz and simvastatin in case patient's antiretroviral regimen is changed and simvastatin is not changed to another statin |
| Sofosbuvir[659](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#659)  (Sovaldi) | 400 mg x 1 | 600 mg with emtricitaine 200 mg and tenofovir disoproxil fumarate 300 mg x 1 | Sofosbuvir Cmax decreased 19% | - | - | - | No dose adjustment necessary |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Efavirenz** | **Effect on Drug Levels** | **Effect on Efavirenz Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Sofosbuvir/velpatasvir[751](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#751)  (Epclusa) | 400 mg /100 mg | 600 mg (with emtricitabine 200 mg and tenofovir DF 300 mg) | Sofosbuvir Cmax increased 38%. Velpatasvir Cmax decreased 47%; AUC decreased 53%; Cmin decreased 57% | Efavirenz Cmin decreased 19%; AUC decreased 15%; Cmax deceased 10% | - | - | Do not coadminister |
| St. John's Wort[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Hypericum perforatum, hypericin, hyperforin) | - | - | - | Not studied, may decrease efavirenz levels | Decreased efavirenz effects | Induction of CYP450 3A4 by St. John's Wort | Do not coadminister |
| Telaprevir[571](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#571)  (Incivek) | 1125mg Q8H x 7 days | 600 mg QD x 7 days administered with tenofovr 300 mg QD x 7 days | Telaprevir AUC: decreased 18%; Cmin: decreased 25% | Efavirenz AUC: decreased 18%; Cmax: decreased 24% | - | - | No dose adjustment necessary |
| Telaprevir[571](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#571)  (Incivek) | 750 mg Q8H x 10 days | 600 mg QD x 20 days | Telaprevir AUC: decreased 26%; Cmin: decreased 47% | Efavirenz Cmax: decreased 16% | Decreased telaprevir effects | Induction of CYP450 3A4 by efavirenz | Increase telaprevir dosage to 1125 mg Q8H |
| Tenofovir disoproxil fumarate[143](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#143)  (TDF)(Viread) | - | - | - | - | Potential early virologic failure | - | Use caution when coadministering tenofovir, didanosine and either efavirenz or nevirapine in treatment-naive patients |
| Tenofovir disoproxil fumarate[96](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#96),[98](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#98)  (TDF)(Viread) | 300 mg QD x 7 days | 600 mg QD x 14 days | No significant change | No significant change | - | - | No dose adjustment necessary |
| **Coadministered Drug** | **Dose of Drug** | **Dose of Efavirenz** | **Effect on Drug Levels** | **Effect on Efavirenz Levels** | **Potential Clinical Effects** | **Mechanism of Interaction** | **Management** |
| Tipranavir[154](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#154)  (TPV)(Aptivus) | 500 mg BID with 100 mg ritonavir BID | 600 mg QD | Tipranavir AUC: decreased 31%; Cmax: decreased 21%; Cmin: decreased 42% | No significant change | Decreased tipranavir effects | Induction of CYP450 3A4 by efavirenz | - |
| Tipranavir[154](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#154)  (TPV)(Aptivus) | 750 mg BID with 200 mg ritonavir BID | 600 mg QD x 8 doses | No significant change | No significant change | - | - | No dose adjustment necessary |
| Triazolam[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Halcion) | - | - | Not studied; may increase triazolam levels | - | Increased triazolam effects (eg, increased sedation, confusion, respiratory depression) | Inhibition of CYP450 3A4 by efavirenz | Do not coadminister; consider alternative agents  *Alternative Agents*:  **Lorazepam Oxazepam Temazepam Trazodone** |
| Valproic acid[220](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#220)  (Depakote, Depakene, Depacon)(Depakene, Depakote) | 250 mg BID x 7 days | 600 mg QD | No significant change | Efavirenz Cmin: no significant change; Cmax: no significant change; AUC: no significant change; half-life: decreased 22% | - | - | No dose adjustment necessary |
| Voriconazole[376](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#376)  (VFend)(VFend) | 300 mg Q12H on days 2-7 | 300 mg QHS x 7 days | Voriconazole AUC: decreased 55%; Cmax: decreased 36% (compared to voriconazole 200 mg BID) | No significant change | Decreased voriconazole effects | Induction of CYP450 3A4 by efavirenz | Do not coadminister at standard doses; increase voriconazole to 400 mg Q12H and decrease efavirenz to 300 mg QHS |
| Voriconazole[376](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#376),[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90),[379](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#379)  (VFend)(VFend) | 400 mg PO Q12H on day 1, then 200 mg Q12H on days 2-8 | 400 mg QD x 9 days | Voriconazole AUC: decreased 77%; Cmax: decreased 61% | Efavrenz AUC: increased 44%; Cmax: increased 38% | Increased efavirenz effects and decreased voriconazole effects | Inhibition of CYP450 3A4 by voriconazole and induction of CYP450 3A4 by efavirenz | Do not coadminister at standard doses; increase voriconazole to 400 mg Q12H and decrease efavirenz to 300 mg QHS |
| Voriconazole[376](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#376)  (VFend)(VFend) | 400 mg Q12H on days 2-7 | 300 mg QHS x 7 days | Voriconazole Cmax: increased 23% | Efavirenz AUC: increased 17%; Cmax: no significant change | - | - | No dose adjustment necessary |
| Warfarin[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (Coumadin) | - | - | Not studied; may increase or decrease warfarin levels | - | Increased or decreased warfarin effects (altered INR, increased risk of bleeding or clotting) | Possible inhibition or induction of CYP450 by efavirenz | Monitor INR and adjust warfarin as indicated |
| Zidovudine[90](http://arv.ucsf.edu/insite?page=ar-00-02&param=9&post=4#90)  (AZT, ZDV)(Retrovir) | 300 mg Q12h x 14 days | 600 mg QD x 14 days | - | No significant change | - | - | No dose adjustment necessary |
| "-" indicates that there are no data available | | | | | | | |

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