

**INTERACTIONS BETWEEN HIV-RELATED MEDICATIONS AND
PSYCHOTROPIC MEDICATIONS**

**TABLE 1
SIGNIFICANT INTERACTIONS BETWEEN ANTIRETROVIRAL THERAPY AND
PSYCHOTROPIC MEDICATIONS: CONTRAINDICATED COMBINATIONS AND
AGENTS TO BE USED WITH CAUTION***

| Medication | Contraindicated | Use With Caution | Comments |
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| Atazanavir (Reyataz) | Midazolam Triazolam Pimozide | Carbamazepine Phenobarbital Phenytoin | <ul style="list-style-type: none"> • Midazolam and triazolam levels may be significantly increased with concurrent PI use. • Carbamazepine, phenobarbital, and phenytoin may reduce PI drug concentrations due to induction of the CYP450 system; consider alternative anticonvulsant. |
| Darunavir (Prezista) | Midazolam Triazolam Pimozide | Carbamazepine Phenobarbital Phenytoin | <ul style="list-style-type: none"> • Midazolam and triazolam levels may be significantly increased with concurrent PI use. • Carbamazepine, phenobarbital, and phenytoin may reduce PI drug concentrations due to induction of the CYP450 system; consider alternative anticonvulsant. |
| Delavirdine (Rescriptor) | Midazolam Triazolam Pimozide | Carbamazepine Phenobarbital Phenytoin | <ul style="list-style-type: none"> • Midazolam and triazolam levels may be significantly increased with concurrent use; avoid combination. |
| Efavirenz (Sustiva) | Midazolam Triazolam | Pimozide Carbamazepine Phenobarbital Phenytoin | <ul style="list-style-type: none"> • Based on <i>in vitro</i> data, midazolam and triazolam concentrations may be significantly increased with co-administration, but <i>in vivo</i>, a reduction in midazolam is expected; avoid combination. • Efavirenz may increase pimozide levels; monitor closely for toxicity. • Carbamazepine, phenobarbital, and phenytoin may reduce EFV drug concentrations due to induction of the CYP450 system; consider alternative anticonvulsant. |
| Etravirine (Intelence) | Carbamazepine Phenobarbital Phenytoin | | <ul style="list-style-type: none"> • Carbamazepine, phenobarbital, and phenytoin may significantly reduce ETR drug concentrations due to induction of the CYP450 system; do not use. |

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| Fosamprenavir (Lexiva) | Midazolam Triazolam Pimozide | Tricyclic antidepressants Carbamazepine Phenobarbital Phenytoin | <ul style="list-style-type: none"> • Midazolam, triazolam, and pimozide levels may be significantly increased with concurrent PI use. • Monitor tricyclic antidepressant therapy closely for toxicity. • Carbamazepine, phenobarbital, and phenytoin may reduce PI drug concentrations due to induction of the CYP450 system; consider alternative anticonvulsant. |
| Indinavir (Crixivan) | Midazolam Triazolam Pimozide | Carbamazepine Phenobarbital Phenytoin | <ul style="list-style-type: none"> • Midazolam, triazolam, and pimozide levels may be significantly increased with concurrent PI use. • Carbamazepine, phenobarbital, and phenytoin may reduce PI drug concentrations due to induction of the CYP450 system; consider alternative anticonvulsant. |
| Lopinavir/ritonavir (Kaletra) | Midazolam Triazolam Pimozide | Carbamazepine Olanzapine Phenobarbital Phenytoin | <ul style="list-style-type: none"> • Midazolam, triazolam, and pimozide levels may be significantly increased with concurrent PI use. • Lopinavir/ritonavir may reduce olanzapine levels. • Carbamazepine, phenobarbital, and phenytoin may reduce PI drug concentrations due to induction of the CYP450 system; consider alternative anticonvulsant. |
| Maraviroc (Selzentry) | None | Carbamazepine Phenobarbital Phenytoin | <ul style="list-style-type: none"> • Carbamazepine and phenobarbital may increase maraviroc metabolism, leading to loss of virologic response, and possible resistance to maraviroc. Increase maraviroc dose to 600 mg twice daily with co-administration. |
| Nelfinavir (Viracept) | Midazolam Triazolam Pimozide | Carbamazepine Phenobarbital Phenytoin | <ul style="list-style-type: none"> • Midazolam and triazolam levels may be significantly increased with concurrent PI use. • Carbamazepine, phenobarbital, and phenytoin may reduce PI drug concentrations due to induction of the CYP450 system; consider alternative anticonvulsant. |
| Nevirapine (Viramune) | None | Carbamazepine Phenobarbital Phenytoin | <ul style="list-style-type: none"> • Potential for interaction with carbamazepine is unknown. Use with caution and consider monitoring carbamazepine levels. |

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| Raltegravir (Isentress) | None | Phenobarbital Phenytoin | <ul style="list-style-type: none"> • Phenobarbital and phenytoin co-administration may significantly decrease raltegravir serum concentrations. |
| Ritonavir (Norvir) | Midazolam Triazolam Pimozide | Alprazolam, carbamazepine, clorazepate, diazepam, estazolam, flurazepam, methamphetamine, nefazodone, olanzapine, perphenazine, phenobarbital, phenytoin, risperidone, trazadone, selective serotonin re-uptake inhibitors (SSRIs), thioridazine, zolpidem | <ul style="list-style-type: none"> • Midazolam, triazolam, and pimozide levels may be significantly increased with concurrent PI use. • Due to the complex nature of ritonavir metabolism, increased or decreased levels of psychotropic agents may occur. Monitor patients closely when changing psychotropic agents or adding ritonavir. • Monitor desipramine levels when used with ritonavir. • Ritonavir may reduce olanzapine levels. • Carbamazepine, phenobarbital, and phenytoin may reduce PI drug concentrations due to induction of the CYP450 system; consider alternative anticonvulsant. |
| Saquinavir (Invirase) | Midazolam Triazolam Pimozide | Carbamazepine Phenobarbital Phenytoin | <ul style="list-style-type: none"> • Midazolam and triazolam levels may be significantly increased with concurrent PI use. • Carbamazepine, phenobarbital, and phenytoin may reduce PI drug concentrations due to induction of the CYP450 system; consider alternative anticonvulsant. |
| Tipranavir (Aptivus) | Midazolam Triazolam Pimozide | Olanzapine Mirtazapine Nefazadone Carbamazepine Phenobarbital Phenytoin | <ul style="list-style-type: none"> • Midazolam and triazolam levels may be significantly increased with concurrent PI use. • Carbamazepine, phenobarbital, and phenytoin may reduce PI drug concentrations due to induction of the CYP450 system; consider alternative anticonvulsant. |

* Tricyclic antidepressants should be used with caution with all boosted PIs.