

1: Drug Alcohol Depend. 2007 Dec 1;91(2-3):269-78. Epub 2007 Jul 23.

Interaction between buprenorphine and atazanavir or atazanavir/ritonavir.

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Opioid addiction and HIV disease frequently co-occur. Adverse drug interactions have been reported between methadone and some HIV medications, but less is known about interactions between buprenorphine, an opioid partial agonist used to treat opioid dependence, and HIV therapeutics. This study examined drug interactions between buprenorphine and the protease inhibitors atazanavir and atazanavir/ritonavir. Opioid-dependent, buprenorphine/naloxone-maintained, HIV-negative volunteers (n=10 per protease inhibitor) participated in two 24-h sessions to determine pharmacokinetics of (1) buprenorphine and (2) buprenorphine and atazanavir (400mg daily) or atazanavir/ritonavir (300/100mg daily) following administration for 5 days. Objective opiate withdrawal scale scores and mini-mental state examination were determined prior to and following antiretroviral administration to examine pharmacodynamic effects.

Pharmacokinetics of atazanavir and atazanavir/ritonavir were compared in subjects and matched, healthy controls (n=10 per protease inhibitor) to determine effects of buprenorphine. With atazanavir and atazanavir/ritonavir, respectively concentrations of buprenorphine (p<0.001, p<0.001), norbuprenorphine (p=0.026, p=0.006), buprenorphine glucuronide (p=0.002, p<0.001), and norbuprenorphine glucuronide (NS, p=0.037) increased. Buprenorphine treatment did not significantly alter atazanavir or ritonavir concentrations. Three buprenorphine/naloxone-maintained participants reported increased sedation with atazanavir/ritonavir. Atazanavir or atazanavir/ritonavir may increase buprenorphine and buprenorphine metabolite concentrations and might require a decreased buprenorphine dose.

PMID: 17643869 [PubMed - in process]

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Lopinavir/ritonavir: a review of its use in the management of HIV infection. [Drugs. 2003] PMID:12662125

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Effect of buprenorphine and antiretroviral agents on the QT interval in opioid-dependent patients. [Ann Pharmacother. 2006] PMID:16507617