

## A Tool for Buprenorphine Care

(A series of monthly newsletters about buprenorphine treatment)  
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### A Buprenorphine and Drug-Drug Interactions Refresher

#### METABOLISM and ITS IMPLICATIONS

Buprenorphine is metabolized in the liver by the cytochrome P450 3A4 isozyme. 3A4 inhibitors include:

- azole antifungal agents (e.g., ketoconazole)
- macrolide antibiotics (e.g., erythromycin)
- HIV protease inhibitors (e.g., ritonavir, indinavir and saquinavir)

Patients taking these medications may not require as high of a dose of buprenorphine as patients not taking any of them. While there have been no studies on the effect of 3A4 *inducers* (e.g., phenobarbital, carbamazepine, phenytoin, rifampicin, St. John's Wort), the FDA does recommend that patients taking these as well as buprenorphine be closely monitored to make sure they are not experiencing opioid withdrawal since the buprenorphine may be metabolized more quickly than usual. On a related side note, it should be mentioned that severe liver disease may inhibit CYP 3A4 activity, and these patients should be monitored closely as well.

#### BENZODIAZEPINES and OTHER SEDATIVES

The use of buprenorphine is *not* contraindicated by concomitant use of benzodiazepines at therapeutic doses, though patients taking benzodiazepines should be cautioned about the risk of respiratory depression that comes with overdose of them, especially in the presence of an opioid, and these patients should be closely monitored as well. The dose of each medication may need to be lowered. Individuals who abuse benzodiazepines are not good candidates for buprenorphine therapy.

Alcohol, barbiturates, and other CNS depressants should also be avoided or used with extreme caution.

#### OPIOID ANTAGONISTS

Buprenorphine and opioid antagonists, such as naltrexone, should not be prescribed concurrently as the antagonist would cause precipitated withdrawal. On the bright side, there is evidence that opioid maintenance therapy may reduce alcohol intake (see Research Update).

#### OPIOID AGONISTS

Though prescribing other opioid agonists along with buprenorphine is occasionally necessary in patients with acute pain, full analgesia may not be possible because of buprenorphine's high affinity for the mu receptor.

Sources: Reckitt Benckiser medication information sheet, TIP40

### Induction Webinar

**January 16, 2009**  
**2:00pm EST**

Dr. Adam Gordon will talk about induction policies and procedures, and then the floor will be opened up for Q&A. Save the date, and watch for instructions for logging on soon!

### Research Update

- Nava F, et al. **Opioid maintenance therapy suppresses alcohol intake in heroin addicts with alcohol dependence: Preliminary results of an open randomized study.** Prog Neuropsychopharmacol Biol Psychiatry. 2008 Dec 12;32(8):1867-72. Epub 2008 Sep 4. (PubMed ID: 18801404.)
- Gordon AJ, et al. **Outcomes of DATA 2000 certification trainings for the provision of buprenorphine treatment in the Veterans Health Administration.** Am J Addict. 2008 Nov-Dec;17(6):459-62. (PMID: 19034736.)
- Roux P, et al. **The impact of methadone or buprenorphine treatment and ongoing injection on highly active antiretroviral therapy (HAART) adherence: evidence from the MANIF2000 cohort study.** Addiction. 2008 Nov;103(11):1828-36. Epub 2008 Sep 4. (PMID: 18778390.)