

## **Formulary controls: Abuse of Psychotropics, and Dispensary Costs in the Incarceration Environment**

George ('Bud') Laird, Ph.D and Pratap Narayan, M.D., Fresno County Division of Correctional Health

Prevalence of substance abuse/dependence in incarcerated populations: 68%.  
Comorbidity: 72% of inmates with mental illness have substance abuse/dependence.

In this population in the jail/prison setting, it is recognized that drug seeking behavior is frequently encountered. Although prescribers usually take into account the potential for abuse before prescribing pain medications, benzodiazepines, and other hypnotic/sedative drugs, practitioners appear less likely to consider medications such as atypical antipsychotics and antidepressants as having the potential for abuse or dependence.

Quetiapine (Seroquel®) and Bupropion (Wellbutrin®) have been identified as possible drugs of abuse within the correctional setting (3). Seroquel® (known as "Quell" (4) and "Baby Heroin" (3), and in combination with cocaine, "Q-ball" (5)) is sought for its soporific effects. Wellbutrin® (nicknamed "Welbys") tablets may be crushed and snorted intranasally to achieve a "rush". Gabapentin (Neurontin®) is said to be sought, and used to reduce the irritant effect of intranasally snorted Wellbutrin®(6).

Some facilities have made efforts to address the problem: Alameda County, California removed Seroquel® and Wellbutrin® from the formulary in 2004 (3); Ohio does not include Seroquel® in its state correctional system formulary (5); CDCR removed Seroquel from its formulary in mid- to late 2008.

The Fresno County Jail houses approximately 2900 to 3350 inmates at any given time. In 2006 - 2007, 353 inmates per month on average received psychotropic medication. Seroquel® accounted for 10.6 percent of the total doses provided, and 36.6 percent of the cost of all psychotropic medications dispensed. It appeared that Seroquel® was the most commonly prescribed atypical antipsychotic, and the most costly. Wellbutrin® was also commonly prescribed (although to a lesser degree), appearing as the fourteenth on the "top 50" listing for 2006.

Clinical presentations of inmates seeking treatment with Seroquel® tended to be atypical at best, and in many instances, at doses that would be considered sub-therapeutic (for control of the reported 'psychotic' symptoms). Inmates frequently "dictated" dosages, and appeared energetic and focused in their efforts to secure the medication.

Inmates frequently refused to consider other treatment options for their symptoms, and often asked specifically for Seroquel® and Wellbutrin®. Clinical presentations frequently suggested malingering of symptoms.

Pharmacological evidence suggests that traditional antipsychotics are just as effective for the treatment of positive symptoms of psychosis (CATIE). In addition, data support the contention that the traditional antidepressants are at least as effective as the newer medications.

The present study was undertaken to explore alternative pharmacological ways to manage psychiatric illness, and to monitor the consequences of formulary changes in clinical practice.

## METHOD

A decision was made in August 2007 to move towards removal of Seroquel® and Wellbutrin® from the formulary. New patients were seen as a priority by the psychiatrist, and medications were prescribed as clinically indicated by symptoms, history and probable diagnosis. The use of these drugs was still available by non-formulary request approved in specific situations.

The usage of medications was tracked, as were the number of crisis calls, safety cell placements and hospitalization for psychiatric reasons.

## RESULTS

In the first six-months, all inmates with reported history of being treated with Seroquel® and Wellbutrin®, had been evaluated in detail by the psychiatrist, and clinically indicated medications had been prescribed in all cases. Wellbutrin® usage was decreased to zero, and Seroquel® usage was reduced to near-zero - at the end of October 2007, only one inmate was receiving the drug.

There were no increases in number of crisis calls or safety cell placements due to change in medication options.

No bad outcomes (suicide, attempted suicide, or assault on staff or other inmates) were observed in the patients who were discontinued from Seroquel® and/or Wellbutrin®.

Two serious suicide attempts (unsuccessful) occurred during the time interval in question; neither inmate had been receiving these medications prior to the attempt, or prior to incarceration.

Medication costs for the program were significantly reduced following the formulary change.

Unnecessary use of these costly medications for reasons not clinically indicated compromises the availability of adequate resources for the treatment of those who need support and intervention in the incarceration environment.

The costs for atypical antipsychotics and total psychotropic medications for July of 2007 (pre-change), were \$70,625 and \$95,934 respectively. Post-change figures for October 2007 were \$32,696 and \$51,489 respectively - a 53.7% reduction in costs for atypical antipsychotics, and a 46.3% reduction in overall costs of psychotropic medications. Post-change figures for January, 2008 (six months out from program inception) translated into a 74.8% reduction in costs for atypical antipsychotics, and a 59.8% reduction in overall costs of psychotropic medications, compared to pre-program inception.

Cost reduction was not the goal, but appeared to be a welcome "byproduct" of the intervention.

These outcomes may be consistent with the reported experience in Alameda County. Although not frequently considered, the practice of abuse of Seroquel® and Wellbutrin® may be a relevant issue to consider at many levels of the incarceration/criminal justice mental health programs.

Although cost savings would not be seen as a direct "goal" of treatment choices, it would appear that cost savings can result through careful determination of pharmaceutical usage. The need for individualized treatment plans, and appropriate clinical evaluations in determining best treatment is certainly not incompatible with wise and judicious use of resources.

#### References:

1. 2002 Bureau of Justice Statistics, report NCJ 209588.
2. SAMSHA, The Prevalence of Co-occurring Mental Illness and Substance Abuse Disorders in Jails. GAINS report, Spring, 2002.
3. DelPaggio, D. Psychotropic Medication Abuse in Correctional Facilities. Psychopharmacology Newsletter, Volume 8, Issue 2, June, 2005.
4. Pierre, J. et. al., Intranasal Quetiapine Abuse., Am. J. of Psychiatry 161:1718, September 2004.
5. Waters, B. and Joshi, K. Intravenous Quetiapine-Cocaine Use ("Q-Ball"). Letters to the Editor, Am. J. Psychiatry 164:1, January, 2007.
6. Della Volpe, K. Intervention Reduces Abuse of Psychotropic Medications in Correctional Facility. Pharmacy Practice News, 2005.
7. Resnick, Phillip J. Faking it: How to detect malingered psychosis. The Journal of Family Practice, Vol 4, No. 11/November, 2005.