RADARS® SYSTEM

Title:	Extended Release Oxycodone Diversion After Reformulation
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Abstract:

Background: In August 2010, Purdue Pharma introduced reformulated extended release (ER) oxycodone (ORF) that is more difficult to crush, forms a gel when dissolved, and is intended to deter abuse via routes that require tampering.

Objective: This study examines whether there was a decline in rates of diversion of ER oxycodone manufactured by Purdue following the introduction of ORF using data collected from drug diversion agents participating in the RADARS® System, an established surveillance system for prescription drug abuse. Other prescription opioids were used as a comparator.

Methods: Diversion cases were obtained on a quarterly basis from law enforcement agencies. The Diversion Program surveyed 300 reporters in 50 states, covering 46% of the US population in the first quarter of 2012. Diversion rates per 100,000 population and per 1,000 unique recipients of dispensed drug (URDD) were calculated for each quarter. October 1, 2008, through September 30, 2010, was considered the period before and October 1, 2010, to March 31, 2012, the period after introduction of ORF. The mean rate of drug diversion was compared before and after the introduction of ORF for ER oxycodone and other prescription opioids using negative binomial regression.

Results: There was a 53% decline (95% CI: 41-63%) in the ER oxycodone diversion population rate from 0.35 per 100,000 before to 0.16 per 100,000 after the introduction of ORF. There was a 50% decline (95% CI: 39-59%) in the ER oxycodone diversion URDD rate from 1.45 to 0.72 per 1,000 URDD before versus after introduction of ORF. The decline in ER oxycodone diversion population and URDD rates were greater than observed for other opioids.

Conclusions: These findings indicate that the introduction of the new formulation was followed by a decline in diversion of ER oxycodone manufactured by Purdue that did not occur for other prescription opioids. The decreased diversion of ER oxycodone to illegal channels suggests a decline in demand for the new formulation versus the original formulation.