Hydrocodone/Acetaminophen Drugs are Most Commonly Implicated in Health-Systems Controlled Substances Discrepancies-Research Study.

In this study conducted by Chukwuma Anyanwu, PharmD, MPH, MBA and Oliver Egwim, PharmD, MBA, controlled substances discrepancies captured from automated dispensing machines in a level 1 trauma hospital, showed higher prevalence of discrepancies. Hydrocodone/Acetaminophen was the most implicated drug, whereas, it was surprising to note that injectable controlled substance drugs were more commonly implicated as a group compared to orally administered controlled substances.

(PRWEB) October 11, 2016 -- In a recent study conducted by Chukwuma Anyanwu, PharmD, MPH, MBA and Oliver Egwim, PharmD, MBA, published by American Health & Drug Benefits, 2016 May; 9(3)128-33, a peer-reviewed journal, it was discovered that among all the controlled substances analyzed for the 1 year period between January 1 2013 to December 31 2013, Hydrocodone/Acetaminophen combination drugs were most commonly implicated and perhaps unaccounted for, in discrepancies involving controlled substances.


According to the lead researcher, Chukwuma U Anyanwu, PharmD, MPH, MBA, healthcare institutions are often faced with challenges to improve quality treatment, while reducing waste and avoiding diversion of controlled substances. Often times, controlled substances may be subject to illegal diversion.

In this study, data for discrepancies of controlled substances captured in automated dispensing machines were analyzed for the level 1 trauma hospital in Houston, TX. About 2468 discrepancies were captured and analyzed for basic prevalence characteristics. Results show that Hydrocodone/Acetaminophen drugs accounted for at least 20% of all controlled substances discrepancies, and therefore possibly the most diverted drug. Wednesday was found to be the most associated day with discrepancies. The reason is still unclear, but anecdotally may not be unconnected with hospitals’ drug inventories performed on Wednesdays for the level 1 trauma hospital. The study also discovered that more than half (52.6%) of the discrepancies involved routine vending activities, typically done on nursing floors in the routine dispensation of medicines to patients from the automated machines. Also, when the data was compared between weekday and weekend occurrences, it was discovered that weekdays were more associated with a higher average rate of occurrence with15.3% (OR, 1.288: CI 0.9-0.99) vs 11.8% for weekend (OR, 0.778: CI 0.9-0.99). Quite surprising, injectable controlled substances such as Fentanyl 100mcg vial, had a slightly higher occurrence rate of discrepancy (52%) compared to orally available dosage forms of controlled substances (48%). This suggests a need for higher controls in the Operating Room (OR) suites, where most of the injectable controlled substances are utilized, and from which ADMs discrepancies show a major source of discrepancies.
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