

Opioid and Benzodiazepine Concurrent Use: What the Prescription Drug Monitoring Database Does Not Tell You

Background

- Over 33,000 opioid overdose-related deaths occurred in 2015; nearly 30% involved benzodiazepines.^{1,2}
- In a previous study of laboratory test results from 2015, investigators showed that prescription data underestimate the concurrent use of opioid and benzodiazepine medications.
- They also showed that using laboratory testing results with prescription data provides a better assessment of concurrent drug use.³
- **Objective:** The investigators updated their analysis to include more recent testing data from 2017; they analyzed prescription patterns and drug testing results of patients who were prescribed at least 1 opioid or benzodiazepine.

Methods

- The study population included patients who 1) had at least 1 drug prescribed and were tested for both opioids and benzodiazepines, and 2) had urine opioid and benzodiazepine prescription drug monitoring results from Quest Diagnostics in 2017.
- Demographic data were collected during the first drug test for each patient.
- Drugs and drug metabolites were detected by liquid chromatography-tandem mass spectrometry (LC-MS/MS) analysis.

Results

- The study included 456,675 urine drug test results from 276,953 unique patients.
- Of the urine drug test results, 20.9% (n=95,648) indicated concurrent use of opioids and benzodiazepines.
- Among those patients with concurrent medication use, 35.6% (n=34,059) were prescribed both medication types; 64.4% (n=61,589) had ≥ 1 medication that was not prescribed.
- Approximately 16% of the urine specimens that tested positive for prescribed opioids were also positive for benzodiazepines that were not prescribed.
- Approximately 13% of urine specimens that tested positive for prescribed benzodiazepines were also positive for opioids that were not prescribed.

Conclusions

- The results of this study show that the extent of concurrent benzodiazepine and opioid use, particularly non-prescribed drugs, cannot be determined by prescription drug database monitoring programs alone.
- The findings support the recommendations of the Centers for Disease Control and Prevention that healthcare providers “should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs.”⁴
- Furthermore, the findings support extending prescription drug monitoring to patients prescribed benzodiazepines.

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Webpage

<https://www.painweek.org/scientificposters/2018-accepted-abstracts.html>

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