Prevalence of Concurrent Opioid and Benzodiazepine Use Among ~15 Million Commercial Members

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Background

Concurrent use of opioids and benzodiazepines can result in increased risk of respiratory depression that can result in death. 1

The 2016 Centers for Disease Control (CDC) guideline for prescribing opioids for chronic pain recommends clinicians should avoid prescribing the combination of an opioid and benzodiazepine whenever possible. 2

In 2015, the FDA announced the interim withdrawal of warnings and safety information for immediate-release opioid labeling including risk due to interactions with benzodiazepines since concurrent use was associated with increased risk of death. 3

The 2017 Fiscal Year for Medical and Medicaid Services (CMS) Call Letter announced the Sentinel System will be established to evaluate and encourage providers to reevaluate their claims data and available drug card administrative management systems and exclude concurrent use of these drug claims. 4

In December 2015, the Pharmacy Quality Alliance (PQA) membership endorsed a new measure called “Concurrent Use of Opioids and Benzodiazepines” 5

PQA measure has been subject to LAII as data limitations are fixed.

Advance knowledge around prevalence of concurrent opioid and benzodiazepine use can help minimize plans for potential quality measures or other prescribing restrictions and improve member safety.

Objective

To determine the prevalence of concurrent opioid and benzodiazepine use in a commercial population and examine how prevalence changes when analysis methods are modified.

Methods

Descriptive statistics were calculated using SAS Version 9.4 (SAS Institute, Cary, NC).

Commercial members with at least one opioid or benzodiazepine claim between Jan. 1, 2015, and Dec. 31, 2015 were included in analysis.

Members were required to be continuously enrolled from their index date through Dec. 31, 2015 or disenrollment, whichever came first.

Members included in the analysis were limited to those with a Medicare or Medicaid claims file on two or more separate days, for which the sum of the days supply was greater than or equal to 10. 6

Medical claims data in 2015 were used to identify members with one or more cancer diagnosis codes in any field of medical claims.

Details used in the analysis were based on a statement from the CDC that excludes cough and cold, injectable formulations, and buprenorphine products used for which the sum of the days supply was 15 or more.

To determine concurrent benzodiazepine use among opioid users, members were also required to have two or more benzodiazepine claims on two or more separate days in 2015, (Table 1).

Concurrently used opioids and benzodiazepines were defined as 30 or more cumulative days of overlap based on days supply found on the claims (Figure 1). Claims were evaluated once per member and their employed, opioid, and benzodiazepine claims and benzodiazepine claims.

Additional variations of analysis methods to detect concurrent opioid and benzodiazepine use included:

- Excluding members with cancer diagnosis code
- Requiring only one benzodiazepine in 2015 instead of two claims
- Requiring only seven days of concurrent use
- Seven (or more) days of concurrent use
- Excluding members with opioid only claims
- Excluding members who have cancer diagnosis codes
- Requiring only one benzodiazepine claim and seven (or more) days of concurrent use
- Seven (or more) days of concurrent use
- Raising the number of days supply to 30 days supply or more
- Raising the number of days supply to 45 days supply or more
- Excluding members with at least 30 days of supply
- Excluding members with at least 45 days of supply

Conclusions

- At the 2016 CDC/Center for Disease Control in 2015 against combination of opioid and benzodiazepine use and the FDA has developed a pharmacy performance measure. In an updated that health insurer’s quality of care will be assessed by the presence of concurrent use among their members. Health insurers should cease identifying at-risk members and developing clinical programs with the goal of reducing concurrent use. 5

- Concurrent use of benzodiazepine and for 30 or more cumulative days was found at a rate of 0.6 percent higher among the entire commercially insured population. An alarming 60% of every opioid users with evidence of concurrent opioid and benzodiazepine use for 30 or more cumulative days.

- The rate of concurrent use increased as the analysis was modified to require fewer claims and fewer overlapping days. Health insurers need to understand their data use and member use patterns to determine intervention thresholds of concurrent opioid and benzodiazepine use.

- Future measures could include an investigation of prescriptions with high volumes of concurrent opioid and benzodiazepine users within their discipline.

Limitations

- Data is limited to commercial populations in the United States, therefore findings may not be generalizable to Medicare or Medicaid populations.

- Administrative pharmacy and medical claims have the potential for miscoding and include assumptions of member actual drug use and diagnosis.

- Members may have been used for opioid or benzodiazepine claims, out of pocket or obtained through them friends and family. In addition, our analysis excluded certain opioids like oxycodone requiring cough and cold products. This could result in underestimation of the number of concurrent users using these drugs.

- Members using utilizing high doses opioids, a risk for overdoses and negative outcomes, without benzodiazepines would not be included in this analysis.

- We did not evaluate doctor or pharmacy shopping for the opioid and benzodiazepine claims, a known risk factor for inappropriate use.

References

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Figure 1. Concurrent Opioid and Benzodiazepine Use Among ~15 Million Commercial Members Using Different Criteria in 2015

Table 1. Members identified criteria

<table>
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<th>Total Concordant Days</th>
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Figure 2. Concurrent Opioid and Benzodiazepine Use Among ~15 Million Commercial Members Considering Different Inclusion Criteria

Table 2. Prevalence of Concurrent Opioid and Benzodiazepine Use Among ~15 Million Commercial Members, Using Different Criteria in 2015

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