

Evaluation of a combination opioid and benzodiazepine consult at the San Francisco Veterans Affairs Health Care System

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Introduction/Background:

National guidelines recommend against initiating concurrent opioids and benzodiazepines due to increased risk for respiratory depression, overdose, death, and other adverse outcomes; however, limited evidence exists evaluating implementation strategies. To reduce new starts on this risky combination, the San Francisco Veterans Affairs Health Care System implemented an electronic clinical pharmacy specialist consult to evaluate requests for new combination opioids and benzodiazepines. Reviewing pharmacists often provide recommendations for alternative medication and non-medication therapies, as well as strategies to enhance safety.

Study Objectives:

To evaluate utilization and outcomes of combination opioid and benzodiazepine consults at the San Francisco Veterans Affairs Health Care System, types of recommendations made, and outcomes of recommendations one month after consult entry.

Primary Outcome:

Overall outcome of consults placed (approved, short-term approved, not approved, or discontinued).

Secondary Outcomes:

Types of recommendations made by the clinical pharmacy specialists and results of recommendations one month after consult entry (implemented by the prescriber, offered by the prescriber but declined by the patient, or not implemented by the prescriber).

Methodology:

A retrospective single arm cohort electronic medical record review was completed for all consults requesting new combination opioid and benzodiazepine prescriptions between February 19, 2016 and June 25, 2019. Consults discussed with the pharmacist but not placed in the electronic medical record were excluded. Retrospective reviews were conducted July through September 2019. Data collected included prescriber demographics, medication requested, treatment indication, consult outcome, pharmacist recommendations, and implementation outcome of those recommendations after one month. Descriptive statistics evaluated consult request, treatment indication, and consult outcome. A linear regression model evaluated the relationship between number of recommendations and number of recommendations implemented by prescribers.

Results/Analysis:

A total of 121 consults were placed for new benzodiazepines (N=55, 45.5%), new opioids (N=44, 36.4%), or both (N=22, 18.2%). Consults were not approved (N=50, 41.3%), discontinued (N=37, 30.6%), short-term approved (N=28, 23.1%), or approved (N=6, 5.0%). A

total of 95 consults (78.5%) had ≥ 1 recommendation provided by the reviewing clinical pharmacy specialist, and among those, the average number of recommendations made was 3.5 ± 1.9 (Range 1:9). There was a significant difference in frequency of the type of recommendation made ($p < 0.001$), with the most common recommendations including a non-benzodiazepine medication alternative (N=51, 42.1%), patient education (N=45, 37.2%), and behavioral therapy (N=41, 33.9%). Among consults with ≥ 1 recommendation made, 48 consults (50.5%) had ≥ 1 recommendation implemented. The most common recommendations implemented by the prescriber included patient education (N=16, 35.6%), a non-benzodiazepine medication alternative prescribed (N=15, 29.4%), and a specialty team referral placed (N=10, 32.3%). There was a trend for a difference in rate of recommendation implementation when comparing by recommendation type ($p = 0.08$), although this did not reach significance. Linear regression indicated that the number of recommendations made ($\beta = .29$, $p < 0.001$) significantly predicted number of recommendations implemented by providers ($F(1, 106) = 33.81$, $p < 0.001$, $R^2 = .24$). The results of the model did not change when cases with more than 5 recommendations were omitted ($F(1, 80) = 33.81$, $p = 0.003$, $R^2 = 0.11$).

Conclusion/Future Direction:

Implementation of an electronic opioid and benzodiazepine new start consult evaluated by clinical pharmacy specialists resulted in an overall low rate of approval, thus reducing use of this risky combination. Among consults with ≥ 1 recommendation made, implementation rate was high at more than 50%. These findings also demonstrate that providing a variety of recommendations, ideally 5 recommendations, increased the likelihood of implementation. Results of this initiative were shared with the San Francisco Veterans Affairs Health Care System Pharmacy and Therapeutics Committee, which approved standardization of consult review to include a variety of treatment alternatives and strategies to enhance safety. Future research should examine the impact of similar interventions on reducing opioid-related adverse events, patient and prescriber perspectives, and impact of engaging in recommended treatment alternatives.