

Facility-Level Factors Associated With Guideline-Concordant Prazosin Dosing for Veterans With Posttraumatic Stress Disorder

To the Editor: We found the article by Alexander and colleagues¹ in the May 2015 issue of the *Journal* to be a compelling demonstration of the potential underdosing of prazosin for posttraumatic stress disorder (PTSD) in the Veterans Health Administration (VHA). The authors reported that only 14.1% of PTSD patients who were prescribed prazosin reached the minimum guideline-concordant dose of 6 mg/d.¹ As they note, a greater understanding of the factors associated with underdosing may aid in identifying strategies to achieve guideline-concordant treatment. In addition to the individual patient characteristics reported by Alexander et al¹ to be associated with prazosin dosing, the overall quality of PTSD care provided at a facility and other facility-level characteristics may also play a role in prazosin prescribing. As part of an ongoing study of PTSD-related sleep disorders, we assessed the association between prazosin dosing and facility-level characteristics, including quality indicators of PTSD psychotherapy and pharmacotherapy. We hypothesized that guideline-concordant prazosin administration would be positively associated with PTSD quality measures.

Methods: We analyzed aggregate data at the facility level (N = 130 facilities) for all VHA patients in fiscal year 2010 who had a new diagnosis of PTSD (*DSM-IV-TR*) and received prazosin. Facility-level indicators of quality of PTSD care included percentage of PTSD patients seen in a PTSD Clinic within 90 days of diagnosis, percentage who did not receive benzodiazepines, percentage who did not receive antipsychotics, and percentage who received adequate psychotherapy. Adequate psychotherapy was defined as receiving at least 8 psychotherapy visits within 14 weeks of the initial psychotherapy visit. Psychotherapy visits were identified by current procedural technology codes recorded in the electronic medical record. Other modeled facility-level variables included urbanicity, number of patients with a PTSD diagnosis, mean patient age, percentage that were white, and percentage with at least 50% service-connected disability rating. A generalized linear model with a logit link and robust standard errors was fit in order to predict the facility-level percentage of prazosin-prescribed PTSD patients receiving a guideline-concordant dose (≥ 6 mg/d). All facility-level variables were entered as covariates.

Results: We found that a facility's proportion of PTSD patients receiving guideline-concordant prazosin was positively associated with the percentage of PTSD patients receiving adequate psychotherapy ($\beta = 4.8$, SE = 2.5, $P = .05$) and negatively associated with the percentage of PTSD patients receiving benzodiazepines ($\beta = -1.9$, SE = 0.95, $P = .047$). Furthermore, the mean maximum dose provided by a facility increased along with the percentage of patients who received adequate psychotherapy ($\beta = 0.07$, SE = 0.03, $P = .03$).

Our finding that guideline-concordant prazosin dosing was associated with lower benzodiazepine use suggests that facilities might use guideline-concordant prazosin in lieu of medications with poorer evidence bases, which is consistent with a prior report that found that increasing prazosin use tracked with decreasing benzodiazepine use among VHA patients with PTSD from 1999 through 2009.² Whether prazosin could be used to assist

patients already prescribed a benzodiazepine to decrease their benzodiazepine use at night deserves further study.

The association between guideline-concordant prazosin dosing and adequate psychotherapy also suggests prazosin dosing might be influenced by health system factors (eg, familiarity with PTSD clinical practice guidelines, culture of quality improvement) that drive care quality more broadly than medication prescribing. Facilities with higher treatment utilization by a specific patient population may attend more to the care of this population³ and/or may have better prescribing practices due to an institutional culture that promotes these practices.⁴ Taken together, our results suggest that health system factors related to the overall quality of care may be important to consider when developing initiatives to improve the quality of prescribing for PTSD.

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