Author’s response to reviews

Title: Association of Skeletal Muscle Relaxers and Antihistamines on Mortality, Hospitalizations, and Emergency Department Visits in Elderly Patients: A Nationwide Retrospective Cohort Study

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Author’s response to reviews: see over
Dear Dr. Mangiameli,

We are pleased to submit the enclosed manuscript, “Association of Skeletal Muscle Relaxers and Antihistamines on Mortality, Hospitalizations, and Emergency Department Visits in Elderly Patients: A Nationwide Retrospective Cohort Study”, as a research article for publication in *BMC Geriatrics*. This manuscript is entirely original and not under review elsewhere. All authors take responsibility for the contents of the manuscript and satisfy the requirements for authorship. The authors of this study have no competing interest to report.

High-risk prescribing in the elderly is common and is associated with an increase in mortality, hospitalizations and emergency department (ED) visits. Two of the more commonly prescribed “high-risk” medications are antihistamines and skeletal muscle relaxants. To our knowledge, there are few reports regarding the safety of these medications in elderly patients. In our study, we sought to determine if these two commonly prescribed “high-risk” medications were associated with mortality, hospitalizations, ED visits, and fracture/fall related hospitalizations or ED visits.

We conducted a nationwide retrospective cohort study of elderly veterans in the United States that included over 60,000 patients from 128 hospitals. Propensity score matching was used to balance all measured covariates between exposed and non-exposed patients. Our study found that patients prescribed antihistamines had a higher risk of mortality, ED visits, hospitalizations, and fracture/fall related hospitalizations or ED visits. Exposure to skeletal muscle relaxants were associated with increased risk of ED visits, hospitalizations, and fracture/fall related hospitalizations or ED visits. This study further validates the classification of these commonly prescribed drugs as “high-risk”.

We have provided the names and emails of three potential reviewers:

Scott Vouri (Scott.Vouri@stlcop.edu), Jeannie Lee (jlee@pharmacy.arizona.edu), and Lisa Hutchison (hutchisonlisac@uams.edu).

Thank you and we look forward to your review.

Sincerely,

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