

Thank you very much for your review and comments. Please find the responses and requested changes below.

1 Scientific quality: The manuscript describes a retrospective study of the geriatric hip fractures. The topic is within the scope of the WJO. (1) Classification: Grade C; (2) Summary of the Peer-Review Report: The authors demonstrated so called "weekend effect" for post-operative complication rate and the length for the certain period before surgery in geriatric hip fracture patients treated in the single tertiary care hospital. Though conclusion is clear, more data and more detail methodology are required. Exclusion criteria should be mentioned. The authors need to add more details in the "method" section. The questions raised by the reviewers should be answered; and (3) Format: There are 4 tables. A total of 28 references are cited, including 5 references published in the last 3 years. There are no self-citations.

All of the questions raised by reviewers were addressed below. Details regarding exclusion criteria and the Materials and Methods section as a whole were added to the manuscript.

2 Language evaluation: Classification: Grade B. The manuscript is from the United States.

3 Academic norms and rules: The authors provided the Biostatistics Review Certificate, the signed Conflict-of-Interest Disclosure Form and Copyright License Agreement, and the Institutional Review Board Approval Form. Written informed consent was waived. No academic misconduct was found in the Bing search. The highest single-source similarity index in the CrossCheck report showed to be 11%. According to our policy, the overall similarity index should be less than 30%, and the single-source similarity should be less than 5%. Please rephrase these repeated sentences.

The single-source similarity phrases were re-worded, such that the index should now be less than 11%.

4 Supplementary comments: This is an unsolicited manuscript. The study is without financial support. The topic has not previously been published in the WJO. The corresponding author has not published articles in the BPG. The first author was born in 1991 (under 45 years old).

5 Issues raised: (1) I found no "Author contribution" section. Please provide the author contributions; (2) I found the authors did not add the PMID and DOI in the reference list. Please provide the PubMed numbers and DOI citation numbers to the reference list and list all authors of the references. Please revise throughout; (3) I found the authors did not write the "article highlight" section. Please write the "article highlights" section at the end of the main text; and (4) the author should number the references in Arabic numerals according to the citation order in the text. The reference numbers will be superscripted in square brackets at the end of the sentence with the citation content or after the cited author's name, with no spaces.

An "Author Contribution" section was added to the manuscript. The PMID and DOI of all references were added. An "article highlight" section was added to the end of the main text. The in-text references were superscripted throughout the manuscript as requested.

6 Re-Review: Not required.

7 Recommendation: Conditionally accepted.

Thank you for giving me an opportunity for reviewing the manuscript written by Pasternack JB et al. The authors demonstrated so called "weekend effect" for post-operative complication rate and the length for the

certain period before surgery in geriatric hip fracture patients treated in the single tertiary care hospital. Though conclusion is clear, more data and more detail methodology is required.

Points are listed below. 1. What does it mean by "medical optimization"?

The lines "Medical optimization refers to the process in which an internal medicine physician evaluates pre-operative patients. He or she determines if patients require additional workup/interventions prior to surgical intervention." Were added to the Materials and Methods section in lines 116-119 of the manuscript.

2. Does the term "transfusion" mean "blood transfusion"?

Yes. We added the word "blood" to line 113 of the manuscript to clarify this.

3. How did authors handle the holidays? Which group are the holidays included?.

"Holidays were considered weekend days, and thus patients who presented to the hospital on a holiday were included in the weekend cohort." was added to lines 101-103 of the manuscript to address this comment.

4. How different between weekdays and weekend in terms of the available numbers of orthopedic surgeons, geriatric physicians or physical therapists in the hospital where this study was taken?

The following lines "On weekends and holidays, staffing levels at the study hospital are decreased relative to weekdays. There is one on-call Orthopaedic surgeon, a medical optimization physician, and two physical therapists that cover the Orthopaedic service on these days." were added to lines 105-107 of the manuscript.

5. Explanation for each abbreviation appeared in the table should be indicated below each Table.

Explanations for each abbreviation that appears in each table were added to the manuscript below each table.

6. How long did the authors follow the subjects to evaluate the mortality and complication rate? Only evaluated during hospital stay?

Yes. Only the hospital stay during which operative intervention occurred was reviewed for each patient. Patients were not followed after discharge from the hospital.

7. Multiple logistic regression analysis should be performed to compare mortality and complication rates between weekdays and weekend groups for adjusting confounding factors such as age and comorbidities.

The requested analysis has been performed. Because there was no difference in mortality

The lines "For complication rate and mortality rate, comorbidities were analyzed with logistic regression models. Comorbidities analyzed were diabetes mellitus, hyperlipidemia, chronic kidney disease, cardiac disease, respiratory disease, depression, dementia, and cancer. Multivariate logistic regression was then performed with the

comorbidities that demonstrated association with the outcome measure in question.” were added to lines 125-130 of the manuscript.

Lines 151-155 of the manuscript in the Results section now read “This remained true when multivariate logistic regression was performed, taking medical comorbidities into account ( $p = 0.4530$ ). Complication rate was significantly higher in the weekend cohort (13.3%) compared to the weekday cohort (8.3%;  $p = 0.044$ ). This, too, remained true when multivariate logistic regression was performed, taking medical comorbidities into account ( $p = 0.0273$ ).”

The line “Of note, mortality rate remained the same ( $p = 0.4530$ ) and complication rate remained different between the two cohorts when multivariate logistic regression was performed ( $p = 0.0273$ ).” was added to the Table 4 legend on lines 448-450 of the manuscript.

8. Exclusion criteria should be mentioned. Were pathological fracture or high energy trauma included?

High energy hip fractures were included, as long as patients were above 50 years of age. For clarity, the line “Only pathologic fractures that were due to a malignancy were excluded.” was added to lines 109-110 of the manuscript.

9. Would you please indicate the numbers of the intracapsular fracture and inter/intra trochanteric fractures in the table?

Intracapsular and trochanteric fractures are now included for both cohorts in Table 3.

10. To date, no weekend effects for intracapsular fracture was observed regarding to post-operative complication rates (Rezaie W et al. Geriatr Orthop Surg 9: 1-6,2018). How about only in trochanteric fracture group? Because trochanteric fracture is more life threatening than intracapsular fracture.

This reference was added to our paper, and both it and another reference were used to add the following to lines 203-207 of the manuscript in the discussion section: “Another retrospective study from a single institution found that weekend admission of intracapsular femoral neck fractures was not associated with an increased complication rate(22). Extracapsular fractures, however, have been shown to be associated with complication rate when patients present on a weekend(9).”