Reviewer's report

Title: Motorcycle-Related Hospitalizations Of Adolescents In A Level I Trauma Center

Version: 2 Date: 9 November 2014

Reviewer: Ashley Weaver

Reviewer's report:

1. This is a well-designed, well-written and interesting study investigating the epidemiology of motorcyclist trauma in a Taiwan hospital sample of trauma patients. This study provides important information on incidence within the adolescent and young adult populations, and the relevance cannot be denied due to the huge proportion of motorcyclist trauma patients in the overall trauma sample analyzed. I have some comments that are more minor in nature documented below to improve the clarity and organization of the paper (mainly the Results section). I commend the authors on an excellent paper that will be of interest to clinicians, policy makers, and biomechanics researchers.

Minor Essential Revisions

2. Does the population of motorcyclists in your sample include road and off-road motorcyclist accidents?

3. Pg 4 line 12: Please specify that the national population described is the U.S. population.

4. Pg 5 line 27: the grammar doesn’t seem correct in this portion of this sentence: “…vital in integration…”

5. Pg 6 line 60: please specify here if you only looked at the AIS severity of each body region or whether the AIS codes (anatomical descriptor plus severity) were analyzed for each body region.

6. The Results jump around between reporting the results relative to all the trauma patients studied vs the subset that were motorcyclist riders. I suggest dividing the Results into two subsections to separate the reporting of the results from these 2 patient populations. For example in the paragraph on pg 7 lines 80-94, the paragraph starts out referring to the motorcyclist patient group and then ends with the all patient group results.

7. Pg 7 line 76: please specify as driver of motorcycle and passenger of motorcycle. The grammar in this sentence needs some work as well.

8. Pg 7 line 83-85: reporting the proportions admitted for treatment subsequent to a motorcycle accident would be helpful here.

9. Pg 8 line 123-125: Did you test ISS between the motorcyclist rider group vs
non-motorcycle rider group? That may be a more meaningful comparison as opposed to comparing motorcyclists to all trauma patients since the motorcyclists make up such a large proportion of the trauma sample. Same comments for the NISS comparison.

10. Tables 1-3: I suggest changing the ‘teenager’ label to ‘adolescent’ since that is the term used in the paper.

11. Pg 9 Line 137-146: This is a really long sentence and I suggest breaking into 2 sentences.

12. Pg 9 Line 148: change to ‘…shows the results of the analysis’

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests