Reviewer’s report

Title: Identical fracture patterns in combat vehicle blast injuries due to improvised explosive devices. Identical injury patterns in blast trauma

Version: 1 Date: 3 April 2012

Reviewer: Brian Stemper

Reviewer’s report:

This is an interesting study on a very relevant topic. Reports such as this are extremely valuable from a clinical, injury mechanistic, and safety engineering standpoint. However, the manuscript as it stands is not suitable for publication. Several specific issues are described below. However, the manuscript in general seems poorly written. The authors should consider a more thorough re-write with well thought out Introduction and Discussion sections.

Major Compulsory Revisions:

1. Figure 1 is not necessary and should be removed.

2. Other factors that can influence injury severity in blast events include occupant orientation, vehicle position relative to the IED, and vehicle characteristics such as mass and hull geometry.

3. The authors repeatedly refer to cases presented in this report as resulting from primary blast. That is not accurate. As they state in the third paragraph of the background, fractures and blunt trauma result from tertiary blast.

4. More description should be provided for each injury beyond the brief description that has been provided. Injury classification and severity level (Abbreviated Injury Scale) should be presented and justified for each.

5. Mechanisms of injury should be discussed in the Discussion, along with well-referenced support.

6. The third paragraph of the discussion is not applicable to this manuscript as pulmonary injuries did not occur in any of the cases presented. It should be removed.

7. The fourth paragraph of the discussion is not applicable to the manuscript as no children were injured in the cases presented.

8. The authors should describe why paired injuries are significant in the understanding of injuries sustained during IED attacks.

9. The authors should Discuss how data from this manuscript compares to other reports of blast injuries, such as, but not limited to, Helgeson et al Spine 2011, Ragel et al Spine 2009, Ramasamy et al J Trauma 2011, Poopitaya et al J Med

**Level of interest:** An article of importance in its field

**Quality of written English:** Not suitable for publication unless extensively edited

**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.