Reviewer’s report

Title: Detection of articular perforations of the proximal humerus fracture using a mobile 3D image intensifier.- A cadaver study

Version: 0 Date: 28 Feb 2017

Reviewer: David Pichora

Reviewer's report:

This is a well designed study relevant to an important clinical challenge.

In the methods, the authors state that SPSS Chi square analysis was used. In the results there is no mention of statistical analysis, results or significance level. While this may seem intuitively obvious, authors should clarify and confirm.

At line 79 it states that all kwire locations are confirmed visually. but at line 110 it states that some wires were excluded after image analysis. this is confusing. Is the visual confirmation not the 'gold' standard? if yes, please revise. if not please clarify.

It would be appreciated if some comment could be made relative to anticipated radiation exposure difference.

Many hospitals do not yet have portable 3D fluoroscopy. Can the authors state whether multiplanar analysis on a 3D capable portable C arm is likely to be equivalent to moving the patient's arm through an equivalent arc of motion during 'live' fluoro with a conventional C arm?

Is there anything unique about the brand of 3D C arm and associated software used in this study? Can the authors confirm they received no support from this manufacturer or any other commercial source?

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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