Reviewer's report

Title: A Cohort Study on the Incidence and Outcome of Pulmonary Embolism in Trauma and Orthopaedic patients.

Version: 4 Date: 21 November 2013

Reviewer: George Zhang

Reviewer's report:

Thank for the opportunity to review the manuscript. The revised version has been enhanced. There were still some of calculation and reporting issues, if I am not missing something here.

## Major Compulsory Revisions

1. The calculation of mortality might be misleading.

1a. Abstract/Results

What's the denominator of the mortality rate (0.07%)? How many deaths?
If it is 85 patients with PEs, then 1/85 > 1%.
If it is the whole study pool (18,151), then 18,151 * 0.07% = 12.7 (13 deaths) - This only can be guessed by Table 1.

But in the Abstract, it seems that the authors were talking about the 85 patients consistently

Seventy-six per cent of these patients received thromboprophylaxis. Hypertension, obesity and cardiovascular disease were the most commonly identifiable risk factors. In 39% of cases, PE was diagnosed during the in-hospital stay. The remaining cases were readmitted following hospital discharge. The median time of PE diagnosis, from the date of injury or the surgical intervention was 23 days (range 1-312).

1b. Tables 1 and 2 seemed to use the same denominator (85 patients) to calculate the mortality for the sub-samples.

2. Abstract/ last sentence

For the mortality risk factors of morbidities and polytrauma injury, the unadjusted odd ratios and their 95% confidence intervals should also be reported along with the p-values.

It is unclear whether these results were based on univariate or multivariable logistic model and whether they were reported in a corresponding table (Table 7? but the numbers do not match).
3. Statistical analysis (P.9)
Based on the limited study sample and events "There are relatively few events (11) for 3 predictors." - page 14, multivariable logistic model is not recommended statistically.

A univariate analysis and unadjusted observed odd ratio and 95% confidence interval should be reported individually for a factor.

## Minor Essential Revisions

4. What is the distribution of 85 patients?
Abstract - "(25 underwent elective surgery and 60 sustained acute trauma)."
Table 1- it is 24/61.

5. Table 3, decimal point (.) was not consistently used to report percentage.

## Discretionary Revisions

6. Table 8 (Characteristics of PE patients) is usually the Table 1 of an article? Most used comma (,) instead.

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests