Reviewer’s report

Title: Efficacy of tranexamic acid in reducing blood loss in posterior lumbar spine surgery

Version: 2 Date: 12 August 2011

Reviewer: Leah Y Carreon

Reviewer’s report:

Major Compulsory Revisions

1. The authors need to clearly state what method was used to determine which patients received Tranexamic acid (TA) and which one did not? Was this physician preference?
2. One of the objectives of the study was to report on the presence of peri-operative complications in patients who received or did not receive TA. I did not see any reports of complications aside from anemia. If there are no other complications to report, the authors need to state so.
3. Although it is stated that all patients underwent posterior spinal fusion surgery over 4 or 5 levels it is unclear whether PLIF was performed over 4 or 5 levels as well. Was PLIF performed over all these levels as well or over one or two levels only.
4. Methods, 2nd Paragraph: Please separate out the demographics for each group: those that received TA and those that did not so the readers can determine if the groups are comparable.
5. The authors need to report the actual p-values in both tables. Although intuitively the values between the two groups seem similar, readers still need to know the p-value.
6. The authors need to provide an explanation as to why their results are different from those previously published which showed a difference in blood loss between patients who received TA and those that did not.
7. Please include study limitations.

Minor Essential Revisions

1. Abstract, Background, Sentence 4:I do not think one can call blood loss a “major complication”.
2. Please attempt to keep the Background/Introduction to a single page. Although aprotinin may be mentioned in passing, there is no need to discuss aprotinin since this is not the subject of the study.
3. Methods, 1st Paragraph: Please clearly state that no iliac crest bone graft harvesting was done.
4. Under the statistics section, when the authors say “The P values were based
on the Student t-test for independent variables” are they trying to say that “For continuous variables, student’s t-test for independent groups was used”?

5. The first two sentences in the Results section are already in the Materials and Methods section. Please delete.

6. The 4th and 5th paragraphs of the Discussion are already mentioned and belong in the Results section. Please delete.

**Level of interest:** An article whose findings are important to those with closely related research interests

**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