Reviewer's report

Title: Laparoscopic versus conventional appendectomy - a meta-analysis of randomized controlled trials

Version: 1 Date: 30 August 2010

Reviewer: Anette Sundfor Jacobsen

Reviewer's report:

In the Abstract, authors set out to compare therapeutic effects and safety.......via a meta-analysis. This purpose must follow through in the discussion and conclusion.

Effect size as included in the methods/abstract should be immediately described and explained. The conclusion in the abstract does not refer to Therapeutic effect and/or safety.

In Background - I do not agree that Lap Appendectomy has not gained widespread acceptance. In the majority of surgical units - this is what we do.

Background last sentence - suggest saying ....LA or OA gives better patient outcome rather than saying - is superior.

Method - OK.

You have included SAGES and EAES, what about IPEG?? (International Pediatric Endosurgery Group)

I think hospital cost should be left out if all the studies included cannot be compared. When the paper deals with several articles from countries where the funding models are so disparate, this does not serve as any useful parameter.

While we study immediate or early postoperative complications, it is much more interesting I think to look at incidences of late adhesive obstructions. It could be postulated that a minimally invasive approach will in the long term lead to lower incidences of adhesions and/or adhesive obstructions. This would be a true benefit of a minimally invasive approach.

Methodological quality assessment: second sentence can be excluded, as this is in the table.

Operating time - many studies focus on operating time, and with a Minimally Invasive approach - we all get better with time - I question the continued focus on operating time, I do not see this as so important.

When we study Postoperative pain, The way this is studied, it will only tell us if Pain was well managed in the hospital (studies) really it should be analgesia use that was studied to see if there was any clinical difference.

Thirty studies reported post-op wound infection rates.
What proportion of cases were perforated or simple, and how does this relate to the cases studied. When we do a meta-analysis of appendectomy studies - we also know that all these cases are not the same, and studies will all have selection bias.

relating to UTI - do the articles studied comment on patient cathetrisation and relation to UTI??

The discussion has numerous grammatical and syntax errors.

I think Figure 1 - 12 should be combined and summarised as results only into perhaps two tables.

Having 12 figures or tables is meaningless, and may be of interest to statisticians, but not to a surgical or GE readership.

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

**Quality of written English:** Needs some language corrections before being published

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

**Declaration of competing interests:**

i declare that I have no competing interests