Reviewer’s report

Title: Trends in Diagnostic Approaches for Pediatric Appendicitis: Nationwide Population-Based Study

Version: 0 Date: 05 Dec 2016

Reviewer: Zenon Pogorelić

Reviewer’s report:

The authors investigated benefits of different methods for diagnosis of pediatric appendicitis in Taiwan on a large patient's sample.

Overall very nice study.

Although the study is well designed and written, there are some objections that needs to be corrected before possible publication:

1. Methodology - Please include a chapter with hypothesis, primary and secondary outcome measurements.

2. Results - What was the rate of negative appendectomies in this study? Please include graph with rates of negative appendectomies during study period. That might be one of important findings and possible explanation of previous findings. Probably the number of negative appendectomies nowadays is lower than before 10 years.

3. Discussion - The authors found that the incidence of non-perforated appendicitis significantly decreased over the study time course and the rate of perforations remained relatively stable at 0.024 %~0.023% from 2003 to 2012. This is one of the main findings and there is no explanation for this in discussion. Please discuss what was possible reason for decreased incidence of non-perforated appendectomies were. Is it because of higher percentage of using of imaging studies?

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.

Unable to assess

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:

Acceptable

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