Reviewer’s report

Title: Effect of team training and monitoring on the rate of failed mid and low cavity vacuum extraction: a hospital based intervention study

Version: 0 Date: 26 Jan 2019

Reviewer: Anna Palatnik

Reviewer's report:

This is an interesting paper assessing three periods of VE after institutional training implementation. Since the main intervention/exposure is the structured measure to reduce failed VE, I strongly recommend including these interventions in a table of a figure in methods section and not leaving them in a supplementary file.

A few questions to the authors:

1. How did you come up with the sample size of 1074? was there a power calculation ? or did you include all patients undergoing vacuum during that time that met inclusion criteria? It would be helpful to see power calculation

2. Please explain/speculate why the adjusted RR for failed extraction was non significant in period 0 versus 2. Did the training effect fade out? If so, this is very discouraging that the improvement happened only for a short time and takes away from the impact of this intervention. If anything, the authors state that complicated extractions decreased in that period, so this should lead to higher success rates for vacuums.

3. Also, please clarify, did the training happen in the year 2009-2010, prior to period 1, or was period 1 a period of active training? This was unclear from introduction and methods

4. Please describe suction cups used for all extractions- was it always a metal cup? Was there a shift in type of vacuum used over the study period?
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 recommend additional statistical review

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

Acceptable

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