Reviewer’s report

Title: Operating room first case start times: a metric to assess systems-based practice milestones?

Version: 0 Date: 27 Jul 2019

Reviewer: John Paige

Reviewer's report:

This manuscript evaluates the impact of multiple variables on first start times in the OR at an academic institution. In particular, the authors looked at whether anesthesiology residents had a relevant impact on first case delays in start time in an attempt to use this variable as a measure of systems-based competence of the resident. This analysis is a retrospective review of 3,071 cases logged by anesthesia residents from 7/2013 to 3/2018. Although interesting in content, this manuscript requires revisions before publications. In particular, the manuscript's main focus of first start delays as a marker of efficiency in the OR seems misplaced. Instead, it should focus on emphasis, perceptions of residents causing delays and how the analysis disproves this. The introduction then should talk about how delays impact OR function for the day (references if available), and the various factors that may cause first start delays. It can then lead to the question of determining the influence of anesthesia residents and their degree of training on these delays. Other comments:

1. The Background in the abstract is not clear

2. The methods should discuss how data analyzed (i.e., descriptive statistics and frequency counts)

3. Putting a control comparing cases with residents and those without ones would add to the findings

4. Having a table showing all variables and the minutes delay would be useful

5. The discussion should focus on how the variables chosen have a relatively low impact on delays (19%) and discuss other more important ones - perhaps breaking them down to personnel, patient, environment, etc.

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 recommend additional statistical review

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

Needs some language corrections before being published

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