Reviewer’s report

Title: A low cost project in a cold economic climate. Operating room data management and the improvement of quality and safety in a surgical block.

Version: 3 Date: 19 July 2012

Reviewer: Franklin Dexter

Reviewer’s report:

Major Compulsory Issues

1. P5 last sentence: "The primary specific objective is to map the path of surgical patients in hospital surgical units and to monitor each step of the surgical process through a detailed survey of the timing of all activities carried out." Also, P7 last three lines "... scans bar codes ... to create a complete record of the surgical path ..."

The authors should start by explaining why this is novel scientifically and what has been learned. For example, go to http://www.franklindexter.net/bibliography_SurgicalServices.htm


My point is that these are 15 years ago. This does not reduce the value to the authors' hospital, but it is unclear what is new about the authors' work or SCIENTIFICALLY important, as compared with locally useful.

2. "P9 third paragraph 'mean, standard deviation ... start-time tardiness ... turnover time'. These endpoints have auto-correlation like most management values. For example, successive turnovers of the same surgeon in the same OR on the same day are correlated relative to all turnovers. This correlation needs to be taken into account in analysis. This is why analysis should be done using quality-control chart methodology (e.g., mean charts).


At http://www.franklindexter.net/bibliography_PredictingDuration.htm, see Dexter F, Dexter EU, Ledolter J. Influence of procedure classification on process variability and parameter uncertainty of surgical case durations. Anesthesia &


Also see Wachtel RE, Dexter F. Reducing tardiness from scheduled start times by making adjustments to the operating room schedule. Anesthesia & Analgesia 108:1902-1909, 2009.

3. P9 "mean, standard deviation ... allocated OR time". The authors' definitions are good, but incomplete because to be based on the efficiency of use of OR time as desired, so too needs to be the OR allocations.


For single OR analysis, see Pandit JJ, Dexter F. Lack of sensitivity of staffing for 8-hour sessions to standard deviation in daily actual hours of operating room time used for surgeons with long queues. Anesthesia & Analgesia 108:1910-1915, 2009.

4. P11 "The success of SPP can be attributed to financial sustainability and process sustainability". The authors have not provided data showing this to be true. The behavioral operations literature indicates that this is NOT obviously true. At http://www.franklindexter.net/bibliography_Psychology.htm, see Nemeth C, O'Connor M, Klock PA, Cook R. Discovering healthcare cognition: the use of cognitive artifacts to reveal cognitive work. Organization Studies 27:1011-1035, 2006.


See Dexter EU, Dexter F, Masursky D, Garver MP, Nussmeier NA. Both bias and lack of knowledge influence organizational focus on first case of the day starts.


**Level of interest:** An article of insufficient interest to warrant publication in a scientific/medical journal

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

I declare that I have no competing interests.

Note that the The University of Iowa, Department of Anesthesia, Division of Management Consulting, performs analyses of OR management data for hospitals. This is how we fund our work. I do not think that there is an overlap with the authors' paper, but how they analyze their data is not presented. Regardless, I receive no funds personally from such activities. I have tenure and do not participate in any incentive programs. Income from the Division's consulting work is used to fund research.