Reviewer's report

Title: Abdominal Surgical Site Infections and the Factors Involved: a descriptive correlational study

Version: 1 Date: 1 June 2004

Reviewer: Christopher Hollenbeak

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General

Razavi et al. seek to describe the rates of abdominal surgical site infections at a teaching hospital in Iran, and identify factors associated with these infections.

The major strength of the paper is the fact that the authors provide data from Iran, a geographic area that is underrepresented in the surgical site infection literature.

The primary limitations include an incomplete analysis of the data and awkward language that distracts from the importance of the data.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Page 3, Paragraph 2, Line 1. Consider changing “aims at determining the factors…” to “aims to determine risk factors…”

Also, the phrase “Iran’s leading teaching hospital” sounds like a marketing phrase. Please say “a major teaching hospital in Iran” or something similar. This should also be changed on Page 7 (Line 4)

Page 8, Paragraph 1, Line 12. Note that all variables are quantitative. You should state that continuous variables were compared using Student’s t test and categorical variables were compared using a chi-square test. Given the relatively large sample size there is no need to use Fisher’s exact test.

Table 5. Did all patients get antibiotic prophylaxis? If not, add another column for “None”. This table should have a single p-value since if patients did not get cefazolin, for example, they got something else. Thus the comparison should be across all treatments and not pairwise comparisons.

For the analysis, consider a multivariate analysis using logistic regression that assesses risk of infections controlling for all independent variables at the same time.

Please describe how outcomes, particularly mortality, were affected by the development of these infections.

The conclusions should be revised to reflect what was learned from the current data set. What was the overall rate of infection, and what were the risk factors? How did the infections impact outcomes?
Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Page 4, Paragraph 1, Line 2. Drop the phrase “descriptive-analytic”. Also, change the phrase “the relations between dependent and independent variables were analyzed…” to “the relationships between variables were analyzed…”

Page 4, Paragraph 2, Line 2. Please use parentheses instead of square brackets to report percentages. Reserve square brackets for in-text citations. This will need to be changed throughout. In line 10, change “correlated” to “associated” and state that the p-values were less than or equal to 0.001.

Page 4, Paragraph 3. Revise the conclusion paragraph to make it more informative.

Page 5, Paragraph 1, Line 2. All in-text citations need to go before punctuation. So, for example, the first sentence should read “…14-16 percent of inpatient infections [1].” This is inconsistent and needs to be checked throughout.

Page 6. Please change this bulleted list to a single, readable paragraph. Provide a reference for the Kruise citation. With respect to steroids, please state that the use of steroids increases the infection rate by 9 percentage points. A change from 7% to 16% is a change of 129%, and 9 percentage points.

Page 7, Line 4. Please change “Iran leading teaching hospital”. Also, I believe Khomeini is misspelled. In Line 5 please omit “correlational” and “leading”.

Page 7, Line 8. There is no need to describe the initial power calculation. Simply state that 884 patients were recruited for the study and 82 were excluded, along with exclusion criteria.

Page 7, Line 16. Dependant should be spelled Dependent. In Line 18, drop “[effective factors]” Drop the last line on Page 7 as the data collection tool is not a survey that needs validation.

Please move all tables to the end of the paper, with each table occupying its own page.

Table 1. Change “Percentage” to “Percent”.

Page numbering stops at page 10. Please continue for all pages.

Page 12, Paragraph 1, Last line. It is not clear to which argument you are referring.

Page 12, Paragraph 2, Last line. Consider changing “ponder upon” to “consider” or drop this sentence altogether.

Page 12, Paragraph 3, Line 4. It is generally understood that statistical analyses do not “prove” anything. Consider changing “proved” to “suggested that”.


Discretionary Revisions (which the author can choose to ignore)
Title: Consider changing the title to capitalize on the uniqueness of the data. Something like, “Abdominal surgical site infections: Incidence and risk factors at an Iranian teaching hospital.” At the very least, “Factors involved” needs to be changed to suggest risk factors, and “descriptive correlational study” needs to be dropped as it does not describe the analysis.

Page 3, Paragraph 2, Line 1. Consider rearranging the first sentence to read “Abdominal surgical site infections are among the most common infections aggravating inpatient admissions and have serious consequences for outcomes, hospital stay, and costs.” In addition, change “e.g.” to “including”.

Page 9, Paragraphs 1 and 2. It is conventional not to start a sentence with a number. Consider rewriting these sentences or writing out the numbers.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

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

Statistical review: No

Declaration of competing interests:

None.