Reviewer’s report

Title: Injudicious use of Laboratory Facilities in Tertiary Care Hospitals At Rawalpindi, Pakistan: A Cross-Sectional Descriptive Study

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Reviewer: Nguyen Hang

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The authors initially set out to study the injudicious use of laboratory facilities through investigating frequencies of incomplete laboratory request forms, inappropriate test requests, and uncollected reports in two major laboratories in Rawalpindi, Pakistan. Although the topic of interest ties with relevant literature the authors reviewed and is important to improve the practice of healthcare services, the analytical methods used in the present study were not sufficiently shown and the results were not enough significant to make a conclusion.

Major Compulsory Revisions
1. The authors presented the overall frequencies of incomplete items in laboratory test forms, but did not show evidences that possible incompleteness would really affect interpretation of the test results in this study. More detailed analysis of related information and specific tests would be useful. For example, how many percent of ordering forms for culture or histopathological tests lack the information of specimens, or how often do the ordering forms of tumor maker tests lack the information of provisional diagnosis, and so on. More concrete discussion can be made consequently.

2. More in-depth analysis relating to expensive tests would be necessary. Expensive tests (536) can be categorized into two groups, dispensable and indispensable, using expert opinion or preset criteria (Miyakis et al., Postgrad Med J 2006;82:823–829), and the differences between two groups (in terms of professional levels of requesting physicians, awareness of test costs, departments, purposes of tests, etc.) can be investigated. By this analysis, factors that may be associated with inappropriate ordering of expensive tests can be found and discussed.

Minor Essential Revisions
1. Materials and methods: More description of the study setting would be necessary, e.g. which laboratories (hematology, microbiology, biochemistry and so on) were the targets of the study, or what the routine flow of receiving test orders/returning test results between wards/departments in each hospital and laboratories was. How did they extract 500 laboratory request forms from the total forms received by each of the two laboratories for three months?

2. Results: Possible associations between uncollected tests and incomplete test
forms can be investigated to find whether form incompleteness has any relationship with collection of the test results.

3. Table 2 and Figure 1 are redundant. Figure 1 with description of size (number) can be used instead of Table 2.

4. The word "department-wise" used in the text body and Table 3 may be replaced by "department-specific", to understand the meaning more clearly.

Minor issues not for publication
1. Typing error: In the Results section, paragraph 2 and Table 2: "QuantiFERON-TB Gold" is correct, not "Quantifron TB-Gold".

2. The format used to describe numerals including decimal points should be consistent throughout the manuscript. For example, in the Results section, paragraph 3: different formats “1,80,050” and “22454” were used. In the table 3, both “40%” and “12.5%” were used.

3. Using commas more often to separate phrases in a sentence would be necessary to avoid misunderstanding of the readers.

Level of interest: An article of limited interest

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

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests