Reviewer's report

Title: Availability and quality of paraffin blocks identified in pathology archives: A multi-institutional study by the Shared Pathology Informatics Network (SPIN)

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Reviewer: Johanna Westbrook

Both the reviewers were in agreement regarding the central concern, namely that the manuscript reports the results of a study to measure the extent to which four sites are able to retrieve paraffin blocks and the quality of those specimens and not about the SPIN tools.

The authors have responded to some of the issues raised and have tried to address this central concern by changing the title of the paper and making some changes in the text. These changes are not sufficient to meet the central problem. For example, in the abstract under background the first five lines discuss SPIN, yet this does not directly relate to the purpose of the study as stated. The authors have to be much clearer about their intended aims and to be clear about how the SPIN relates to these aims.

At present the paper appears to have two aims:

1) promote SPIN for its potential for researchers
2) conduct a study to examine the ability of four organizations to retrieve paraffin blocks and the quality of these.

The authors have not clearly established the link between these two aims. The link appears to be establishing the feasibility of implementing any type of cross institutional repository search tool. It would seem reasonable here to provide some detail about how SPIN will or does work. Changing the title has suggested the paper is primarily about aim 2, yet the authors continue to draw constant reference to SPIN without clearly establishing the link, or in fact clearly explaining what SPIN can or does do, who is using it and how the results from the current study relate to SPIN now or in the future. While the authors state in their response to reviewer AG that “Although the reviewer would like to see this manuscript to be more focused on the SPIN tools themselves, we are only able to highlight the feasibility of implementing such tools.” I agree with the intention of this statement by the authors yet the authors have not made sufficient changes to the manuscript to comply with this stated aim. For example the authors claim many benefits of the SPIN architecture and the ability of the tools to merge specimen pools from multiple institutions as well as provide annotations etc (see page 15) yet provide readers with no details about how SPIN does this. One might expect a feasibility of implementation study to discuss how the SPIN tools will interface with many existing pathology systems at different organisations etc. Thus this information would appear to belong to the future publication which the authors make reference to and not to the current paper. Thus if the benefits of SPIN are to be discussed then some detail should be provided.

The statements made in the conclusion are not substantiated by the results. Given that a variety of retrieval methods were used the results cannot be said to “show the feasibility of using a SPIN query tool.” The authors could conclude that currently available retrieval tools are able to identify and led to the retrieval of data likely to be of value to researchers. Given that the SPIN tools were not the focus of the study, and that we are unclear as to which organizations used them, no conclusions about the value of the SPIN tools can be made. Also it is inaccurate to state that the results “...serve as the baseline against which uniform use of the SPIN query tool by all four centers can be measured”. I can see no basis for this conclusion. As the other reviewers point out, some of the four organizations used SPIN in the current study to retrieve data and others used local methods. Thus if the aim was to use this dataset as baseline for comparison with what is possible when SPIN tools are used to extract data in the future the baseline data are contaminated.

The fact that only some of the SPIN participating organizations used the SPIN tools does raise the question as to why? The authors have not adequately explained the reason for this.

In summary, I believe there are some valuable and interesting findings which are worthy of publication. The authors just need to focus on clearly reporting the results of their study and then drawing on these in terms of the implications for the feasibility of the SPIN program. The paper needs to undergo further modification
to achieve this goal. I am in agreement with the further suggestions made by Reviewer MC. However I think
the authors need to more adequately separate the purpose of the current study and SPIN. If there is no
intention of clearly explaining what SPIN is, how the query tool works, how it interfaces with the pathology
systems of different organizations, why some of the participating SPIN organizations are choosing not to
use it, then mention of SPIN should be reduced and particularly unsubstantiated enthusiastic comments
regarding the benefits of SPIN. These would appear very relevant to the future publication but not the
present paper. Removing these sections will also help to reduce the length of the paper.