

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form ([see an example](#)) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below. Some articles will have been accepted based in part or entirely on reviews undertaken for other BMJ Group journals. These will be reproduced where possible.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Utilization of a Thoracic Oncology Database to Capture Radiological and Pathological Images for Evaluation of Response to Chemotherapy in Patients with Malignant Pleural Mesothelioma
<b>AUTHORS</b>	Salgia, Ravi ; Carey, George; Kazantsev, Stephanie; Surati, Mosmi; Rolle, Cleo; Kanteti, Archana; Sadiq, Ahad; Bahroos, Neil; Raumann, Brigitte; Madduri, Ravi; Dave, Paul; Starkey, Adam; Hensing, Thomas; Husain, Aliya; Vokes, Everett; Vigneswaran, Wickii; Armato, Samuel; Kindler, Hedy

### VERSION 1 - REVIEW

<b>REVIEWER</b>	Sai Yendamuri MD, FACS Associate Professor, Department of Thoracic Surgery, Roswell Park Cancer Institute
<b>REVIEW RETURNED</b>	30-Jun-2012

<b>THE STUDY</b>	No checklist is needed.
<b>RESULTS &amp; CONCLUSIONS</b>	The article needs to discuss other database options for storing large amounts of data and compare their system to those options.
<b>GENERAL COMMENTS</b>	The authors should compare their current system with existing database solutions capable of handling large amounts of information, including imaging data.

<b>REVIEWER</b>	Hillerdal, Gunnar Karolinska Institute
<b>REVIEW RETURNED</b>	12-Jul-2012

<b>GENERAL COMMENTS</b>	<p>Recommendation: Publish after considerable shortening</p> <p>This paper is mainly a technical one showing the difficulties to extract meaningful information from even extensive data bases especially translational research. Thus, there is no new information about the specific tumor type studied, in this case pleural mesothelioma. Only 22 out of a total of 129 mesotheliomas did in the end fulfill the criteria for this special study which severely limits the usefulness of the method.</p> <p>Nevertheless, the paper indicates the way we probably have to go. For clinicians this could also be of value. I think however that the text could be very considerably condensed. Table 1-3 are not necessary, the relevant info is already in the text (no conclusion can be drawn!) Nor do I see the relevance of figure 2, figure 3 could remain as an illustration.</p> <p>In the conclusion it is stated that this example has illustrated the potential for use in cancer research. I can unfortunately only half-</p>
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	heartedly agree with this statement; there is much improvement needed before any clinical use comes out and as far as I can see nothing new and no conclusions came out of this particular study. But the potential is there and I hope the authors can continue the work.
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<b>REVIEWER</b>	Patrick Ma, MD Staff Cleveland Clinic Taussig Cancer Institute Cleveland, OH U.S.A.
<b>REVIEW RETURNED</b>	22-Jul-2012

<b>GENERAL COMMENTS</b>	<p>This is an interesting and very timely article submission by Carey GB et al., on “Utilization of a novel thoracic oncology database in evaluation of response to chemotherapy, radiology, and pathology in malignant pleural mesothelioma”, which described and demonstrated the potential of utilizing the Thoracic Oncology Research Program (TORP) imaging database using the Research Electronic Data Capture (REDCap) platform alongside in interface with the Thoracic Oncology Program Database Project (TOPDP) relational database.</p> <p>The authors demonstrated a proof-of-principle by use of a retrospective study investigating MPM patient tumor measurements in patient treated with two analogous platinum-based doublet chemotherapy regimens.</p> <p>This study addresses an important area of translational research need in thoracic oncology, and also more broadly among other cancer disease types, in that there is an urgent need for a electronic database that can capture clinical and pathologic data, imaging studies data, and molecular and translational studies results to facilitate a searchable and analyzable database. The authors made an attempt in developing a link between a previously established TOPDP under Microsoft Access platform and now a TORP under a REDCap platform. It would be ultimately most desirable to have all entries to be captured under a unifying database platform, and the authors could address this possibility and future options. Can all future data be all captured under REDCap platform altogether and what would be the pros and cons? Are there any other possible platforms other than REDCap that can be considered as alternatives of bioinformatics platform that can perform and deliver the same functionalities the authors highlighted as needs in translational research?</p> <p>Figure 1: it is difficult to read the small fonts of words. Consider adjusting to enlarge the font size.</p>
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### VERSION 1 – AUTHOR RESPONSE

#### REVIEWER 1

1. The authors should compare their current system with existing database solutions capable of handling large amounts of information, including imaging data.

We have added a comparison of other imaging databases to the Discussion. We also now discuss an

alternative database which may better suit our needs in the Conclusion.

**REVIEWER 2**

1. Only 22 out of a total of 129 mesotheliomas did in the end fulfill the criteria for this special study which severely limits the usefulness of the method.

While we agree that a larger sample size would have been desirable, we respectfully submit that the small sample size does not in fact severely limit the usefulness of our method. We believe that despite the small sample size, we were still able to adequately evaluate this informatics infrastructure.

2. I think however that the text could be very considerably condensed. Table 1-3 are not necessary, the relevant info is already in the text (no conclusion can be drawn!) Nor do I see the relevance of figure 2, figure 3 could remain as an illustration.

In order to condense the paper, we have deleted sections we thought were wordy or redundant. We have removed figure 2 and have condensed tables 1 – 3 to one table that illustrates basic information about the patient population in the case study.

3. In the conclusion it is stated that this example has illustrated the potential for use in cancer research. I can unfortunately only half-heartedly agree with this statement; there is much improvement needed before any clinical use comes out and as far as I can see nothing new and no conclusions came out of this particular study. But the potential is there and I hope the authors can continue the work.

We have amended the Conclusion to state that this informatics infrastructure would only be effective in smaller studies such as ours. We also state in our Conclusion that we are pursuing a new SQL database that we hope will make our workflow significantly more streamlined and efficient.

**REVIEWER 3**

1. It would be ultimately most desirable to have all entries to be captured under a unifying database platform, and the authors could address this possibility and future options. Can all future data be all captured under REDCap platform altogether and what would be the pros and cons? Are there any other possible platforms other than REDCap that can be considered as alternatives of bioinformatics platform that can perform and deliver the same functionalities the authors highlighted as needs in translational research?

We have added more language about why we prefer not to move entirely into REDCap. We agree that it is desirable to have one database, so we have added a section to the Conclusion saying so and exploring the possibility of creating a unified SQL database that would meet our needs.

2. Figure 1: it is difficult to read the small fonts of words. Consider adjusting to enlarge the font size.

We have adjusted the figure so that it is easier to read.

**VERSION 2 – REVIEW**

<b>REVIEWER</b>	Sai Yendamuri Associate Professor Department of Thoracic Surgery Roswell Park Cancer Institute
<b>REVIEW RETURNED</b>	05-Sep-2012

- The reviewer completed the checklist but made no further comments.

<b>REVIEWER</b>	Patrick Ma, MD Staff
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	Cleveland Clinic Taussig Cancer Institute Cleveland, OH U.S.A.
<b>REVIEW RETURNED</b>	10-Sep-2012

<b>GENERAL COMMENTS</b>	The authors have now made significant revision of the last submitted manuscript and the current revised manuscript version has satisfactorily addressed the reviewer's comments and queries.
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