

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Can patients really make an informed choice? An evaluation of the availability of online information about consultant surgeons in the United Kingdom
AUTHORS	Caplan, Nick ; radha, sarkhell; St Clair Gibson, Alan; Shenouda, Michael; Konan, Sujith; Kader, Deary

VERSION 1 - REVIEW

REVIEWER	Lorelei Jones Research Fellow Department of Health Services Research and Policy London School of Hygiene and Tropical Medicine United Kingdom
REVIEW RETURNED	09-May-2012

THE STUDY	<p>I recommend the following references to aid the authors in locating their study in the recent literature on how patients make choices and how they use information on health care providers; and on the controversies surrounding the publication of performance data.</p> <p>Marshall M, McLoughlin V (2010) How do patients use information on providers? British Medical Journal 341, no c5272.</p> <p>Dixon A, Robertson R, bal R (2010) The experience of implementing choice at the point of referral: a comparison of the netherlands and England. Health Economics, Policy and Law 5(3): 295-317.</p> <p>Dixon et al (2010) Patient choice: How patients choose and how providers respond. London: The Kings Fund.</p> <p>Boyce T, Dixon A, Fasolo B, Reutskaja E (2010) Choosing a high quality hospital: the role of nudges, scorecard design and information. London: The Kings Fund.</p>
RESULTS & CONCLUSIONS	In your discussion you relate your findings to the existing literature, for example you say that patients prefer websites run by recognisable healthcare organisations or professional groups and that criteria for high quality health websites has been described. You also discuss what is known about the use of photographs on websites. This literature has clearly informed the development of your assessment tool. I wonder then if a review of this literature is better presented up front, in your background section. This would aid the reader in understanding the development of your assessment tool and in interpreting your findings. At the moment the reader must

	<p>wait until the discussion section to realise the significance of your methods and findings.</p> <p>I recommend expanding your discussion of the issue of the publishing of mortality/morbidity data at the level of the individual consultant. You mention that patients do not find this information helpful, but this could be expanded (why not? what do they find helpful?). There are other concerns that have been voiced in the literature which I think need to be acknowledged here. For example, how is mortality data to be interpreted? Relatively high mortality may be an indicator of poor quality, or alternatively it may mean that the surgeon is very good and is therefore referred the most complex cases. Similarly a relatively high rate of errors may be an indication of poor quality or it may reflect a safety culture of openness and transparency. What is the most useful data to publish? (risk-adjusted survival, morbidity, readmission?) Are there any unintended consequences of publishing this data (good or bad)?</p> <p>There is also the question of who performs the procedure. A consultant is often the head of a surgical team, especially if she is involved in teaching. You suggest that involvement in teaching may be an indication of good performance but it also means that the procedure may be undertaken by a trainee. This adds additional complexity to the publication of performance data (especially as one of the things patients most value is being treated by a consultant).</p>
GENERAL COMMENTS	<p>I enjoyed reading this paper.</p> <p>I wonder how your findings compare with what information is provided in the private sector.</p>

REVIEWER	<p>Dr.Lubna Daraz Postdoctoral Fellow McMaster University Canada</p> <p>There is no conflict of interests.</p>
REVIEW RETURNED	09-May-2012

GENERAL COMMENTS	<p>Comments and feedback.</p> <ol style="list-style-type: none"> 1.Authors selected only 5 top web links retrieved by a search engine. There are suggestions that lay people seldom search for information beyond the first 20 links retrieved by a search engine, so authors should have used more than 5 to dictate their website sample. 2.Carefully check for grammatical errors for example, use of comma (i.e. page 7, last para), use of appropriate language (i.e. Nearly half of the websites analysed targeted other sectors and not patients). Table 1, Part B, note below Table, spacing etc. 3.Some of the references (i.e. http://www.icwsm.org/papers/3-Gosling-Gaddis-Vazire.pdf) were not accessible to review. 4.The tool that was developed to assess quality is not comprehensive. Using a yes or no option is not really a best way to assess quality. These can be used to judge whether a website addressed the topic or not. It does not give option to provide score
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	<p>for partial answer to a question. Yes or No, forces a person to answer a question which could be biased. Also, the authors reported that more than 50% websites provided information about advertising which was not included in Table 1 to assess quality. This could be a major criterion to assess quality. Authors may want to reconsider these issues for designing their quality assessment questions.</p> <p>5.This paper is very poorly conducted, not comprehensive in terms of evaluating quality. The authors need to consider established quality assessment tools to evaluate the quality of online health information. The assessment tool was poorly constructed. Need to include more quality criteria such as reliability. Also the tool was developed based on a Govt. white paper which is also not very plausible.</p> <p>6.Not much discussion about advertisement or for profit websites which is a major indicator for quality.</p> <p>7.This paper is not comprehensive enough to publish in BMJ open and authors need to make major revisions including the assessment tool to increase the possibility of acceptance.</p>
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REVIEWER	<p>Mr. Anthony Hui Consultant Orthopaedic Surgeon and Clinical Director James Cook University Hospital Middlesbrough</p> <p>No competing interests.</p>
REVIEW RETURNED	19-May-2012

THE STUDY	<p>This paper is a survey of orthopaedic consultants' websites information. The conclusion is that important information is often absent and patients are unable to make informed choices. However, the criteria on which the websites were judged were entirely subjective and the paper did not provide sufficient evidence to clarify what information is linked to patients satisfaction and clinical results. For example, does personal involvement in teaching and research influence result of surgical treatment from the particular individual surgeon?</p> <p>Morbidity and mortality is complex and without careful standardisation and adjustment, they can be open to mis-interpretation.</p> <p>The obvious question on the subject is what information is important. This needs to come from patients as well as objective clinical outcome measures. This paper may be a useful follow up study once we have defined and validated the list of relevant information.</p>
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REVIEWER	<p>Bruce Mason Research Fellow University of Edinburgh United Kingdom</p>
REVIEW RETURNED	21-May-2012

THE STUDY	<p>The research design is too narrow to adequately capture the research question as phrased. There are two elements to this.</p>
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	<p>1) The search strategy deployed seems odd. The search engines chosen appear to miss out Bing (though it might be referred to under MSN). It also takes no account of how actual users might choose social media or use mobile devices to search for information.</p> <p>2) The choice of content (web-pages) is likely to be fairly limited given the range of information sources and the increasing influence of 'peer-to-peer' networks of information (i.e. web2.0).</p> <p>The study design is reasonably good at analysing content on web pages but only partially answers the question of whether there is "sufficient high quality online information" available.</p> <p>Methods adequately described. On the whole yes however the focus group which is mentioned has no associated information so it has hard to know what impact, if any, it had on the template.</p> <p>Finally, for a content analysis, there appears to be little analysis of content. For example, were issues in reading age of the language addressed? What about use of multimedia (if present). What links were available and how did the page relate to other pages? The issues explored (presence of some stats) appears inadequate to assess the quality of the information.</p>
GENERAL COMMENTS	<p>There is useful information in this paper but as it stands it does not go into enough depth of content analysis. In common with many research studies looking at webpages it fails to consider the impact of linking, role of multimedia and even web standards (e.g. is a page w3c compliant? Has it been tested for accessibility?) I'm keen to see studies like this progress hence I have scored it as needing a major revision rather than rejection.</p>

VERSION 1 – AUTHOR RESPONSE

Reviewer: Lorelei Jones
 Research Fellow
 Department of Health Services Research and Policy
 London School of Hygiene and Tropical Medicine
 United Kingdom

REVIEWER: I recommend the following references to aid the authors in locating their study in the recent literature on how patients make choices and how they use information on health care providers; and on the controversies surrounding the publication of performance data.

Marshall M, McLoughlin V (2010) How do patients use information on providers? British Medical Journal 341, no c5272.

Dixon A, Robertson R, Bal R (2010) The experience of implementing choice at the point of referral: a comparison of the Netherlands and England. Health Economics, Policy and Law 5(3): 295-317.

Dixon et al (2010) Patient choice: How patients choose and how providers respond. London: The Kings Fund.

Boyce T, Dixon A, Fasolo B, Reutskaja E (2010) Choosing a high quality hospital: the role of nudges, scorecard design and information. London: The Kings Fund.

RESPONSE: We would like to thank you for your constructive comments and suggestions of

additional papers to include. We have now expanded our introduction to include some of the relevant messages from these papers. We now feel that the introduction is stronger as it now outlines what information is currently available to help patient choice. The following text has been added to the introduction:

“A number of online information resources have been developed which allow patients to compare various aspects of different hospitals⁴. However, patients have reported that they would find information about individual specialties or surgeons more useful in choosing their healthcare provider for elective surgery⁵. Such information, including surgical outcomes, has been available since 2004 in cardiac surgery⁶. In other fields of medicine, where such information is not so readily available, patients will have to rely on the information contained within the websites of individual surgeons, either private or locally managed.”

And

“Despite the increasing proportion of the population that use the internet, the use of online information for healthcare choices is still relatively low¹⁰. Interventions are clearly needed to improve the ability of patients to retrieve, interpret and use information about healthcare professionals¹¹. To ensure that patients can continue to make informed choices as their use of online information increases, it is vital that this information is available consistently across all surgical fields, not just cardiac surgery. Indeed this information has generally been criticised in recent years for not being timely, and having inadequate content.

REVIEWER: In your discussion you relate your findings to the existing literature, for example you say that patients prefer websites run by recognisable healthcare organisations or professional groups and that criteria for high quality health websites has been described. You also discuss what is known about the use of photographs on websites. This literature has clearly informed the development of your assessment tool. I wonder then if a review of this literature is better presented up front, in your background section. This would aid the reader in understanding the development of your assessment tool and in interpreting your findings. At the moment the reader must wait until the discussion section to realise the significance of your methods and findings.

RESPONSE: We have reviewed these parts of the discussion and made the following changes to introduce these topics earlier in the paper:

- 1) A section of the introduction now discusses patient views on what is important to them. Within this paragraph, the relevance of website ownership and trustworthiness is discussed
- 2) After comments by another reviewer, the development of the assessment tool has been explained more clearly, as part of the development involved identifying typical items that are included in consultants' web pages (e.g. photos). This initial step was the reason for including “photograph” as an item we looked for. As such, the discussion of the importance of photos has been left in the discussion as these papers were not used in the development of the assessment tool

REVIEWER: I recommend expanding your discussion of the issue of the publishing of mortality/morbidity data at the level of the individual consultant. You mention that patients do not find this information helpful, but this could be expanded (why not? what do they find helpful?). There are other concerns that have been voiced in the literature which I think need to be acknowledged here. For example, how is mortality data to be interpreted? Relatively high mortality may be an indicator of poor quality, or alternatively it may mean that the surgeon is very good and is therefore referred the most complex cases. Similarly a relatively high rate of errors may be an indication of poor quality or it may reflect a safety culture of openness and transparency. What is the most useful data to publish? (risk-adjusted survival, morbidity, readmission?) Are there any unintended consequences of publishing this data (good or bad)?

RESPONSE: The discussion has now been expanded to discuss this topic in more detail. As well as addressing the suggestions you appropriately make.

Although Magee reported that the majority of patients do not find mortality rates useful, following recommendations of another reviewer, we are now able to cite literature that conflicts with this. The discussion has been updated to reflect these conflicting findings.

The reasons cited by Magee as to why patients don't find mortality rates useful include that they question its relevance to clinical quality and some found it frightening. Text has been added to the discussion to this effect.

The presentation of mortality rates is a difficult issue which is open to misinterpretation by patients. The paper has been amended to discuss the issue of presenting fully risk-adjusting mortality rates, as has received much interest in the cardiothoracic field. The following text has been added to the discussion at the end of the paragraph discussing mortality rates:

“Depending on a consultant's area of specialism, it may be that they are referred specific cases which are higher risk. By presenting non-risk adjusted mortality rates could lead to some surgeons appearing to patients, through misinterpretation, as being riskier. Reported mortality rates should be fully risk-adjusted to ensure that appropriate comparisons can be made between different surgeons, and to avoid higher risk patients being declined surgery in an attempt to maintain low mortality rates⁶.”

REVIEWER: There is also the question of who performs the procedure. A consultant is often the head of a surgical team, especially if she is involved in teaching. You suggest that involvement in teaching may be an indication of good performance but it also means that the procedure may be undertaken by a trainee. This adds additional complexity to the publication of performance data (especially as one of the things patients most value is being treated by a consultant).

RESPONSE: This is a valid point and an alternative interpretation of our data on involvement in teaching. We have expanded our discussion of these data to comment on this potential issue, adding the following text:

“Conversely, involvement in teaching might suggest that surgical procedures are performed by more junior clinical staff under consultant supervision. Older patients have reported as being more likely to choose where they are referred based on whether a consultant will perform the actual surgical procedure¹³, and thus involvement in teaching by the consultant might modify patient choice to avoid a teaching institution. The relationship between consultant involvement in teaching and patient surgical outcomes clearly warrants further research.”

REVIEWER: I enjoyed reading this paper. I wonder how your findings compare with what information is provided in the private sector.

RESPONSE: We thank you for your constructive comments and hope that you enjoy reading our revised version even more. In terms of comparisons to the private sector, this would make an interesting study to follow on from the current paper. In the “article summary” the following text has been added to the “policy implications and future research” section:

“Comparisons should also be made between the information available on both public and private providers.”

Reviewer: Dr.Lubna Daraz
Postdoctoral Fellow
McMaster University
Canada

REVIEWER: 1. Authors selected only 5 top web links retrieved by a search engine. There are suggestions that lay people seldom search for information beyond the first 20 links retrieved by a search engine, so authors should have used more than 5 to dictate their website sample.

RESPONSE: We thank the reviewer for pointing out this issue. We have now reanalysed the top 30 search returns for each surgeon, as in Hargrave et al (2006). For all surgeons, this additional search did not return any websites that had more information than those already included in the study. The text in the method has been updated to reflect this.

REVIEWER: 2. Carefully check for grammatical errors for example, use of comma (i.e. page 7, last para), use of appropriate language (i.e. Nearly half of the websites analysed targeted other sectors and not patients). Table 1, Part B, note below Table, spacing etc.

RESPONSE: The manuscript has been checked for grammatical errors. It is not clear which comma is referred to in the reviewer's comment about page 7. The second specific comment has been corrected. It is not clear what the reviewer means by "Table 1, Part B, note below Table, spacing, etc."

REVIEWER: 3. Some of the references (i.e. <http://www.icwsm.org/papers/3-Gosling-Gaddis-Vazire.pdf>) were not accessible to review.

RESPONSE: This web address has been checked and corrected. The previous weblink was correct, but for some reason the two dashes following "3" had been changed to a longer dash, perhaps through Microsoft Word's automatic formatting function. The correct web address is <http://www.icwsm.org/papers/3--Gosling-Gaddis-Vazire.pdf>. All other links have been tested and are working.

REVIEWER: 4. The tool that was developed to assess quality is not comprehensive. Using a yes or no option is not really a best way to assess quality. These can be used to judge whether a website addressed the topic or not. It does not give option to provide score for partial answer to a question. Yes or No, forces a person to answer a question which could be biased. Also, the authors reported that more than 50% websites provided information about advertising which was not included in Table 1 to assess quality. This could be a major criterion to assess quality. Authors may want to reconsider these issues for designing their quality assessment questions.

RESPONSE: Another reviewer also commented on the ability of the tool we developed and used to evaluate website content quality. Following reflection on these comments, we agree that the tool is not sufficient to evaluate quality. However, the main aim of our study was to determine if the appropriate information is available or not, so as to identify areas which tend to lack in terms of information provision to allow patients to make informed choices. As such, we have revised the manuscript to clarify that the tool was developed to allow each website to be evaluated for the availability of information. We have also added in to the discussion the following text to outline that future studies need to examine this in more detail:

"Further research is also needed to evaluate not just the availability of online information, but also the quality, accuracy and reliability of this information, and consistency of information reporting across

different trusts.”

REVEIWER: 5.This paper is very poorly conducted, not comprehensive in terms of evaluating quality. The authors need to consider established quality assessment tools to evaluate the quality of online health information. The assessment tool was poorly constructed. Need to include more quality criteria such as reliability. Also the tool was developed based on a Govt. white paper which is also not very plausible.

RESPONSE: As per our previous comment, we feel that these comments are appropriate as the manuscript gave the impression that we were at this stage investigating the quality of the information available. As discussed in the above, we have now revised the paper to focus on the availability of information to address this concern. In the discussion, the requirements of future studies to look at the quality and reliability of such information are outlined. In relation to the use of the white paper in the development of the tool, we feel that this comment is mainly down to the wording used in the manuscript. In section 2.21 of the white paper “Equity and excellence: liberating the NHS” it states “We will need to tackle a range of issues, including:.....information availability and accessibility to enable choice of treatment.....” This was the basis of the current study, and the white paper makes references to some of the types of information that the UK Government expects should be available. This was only used for initial development, following which the tool underwent further development to widen the types of information that were assessed for availability.

REVEIWER: 6.Not much discussion about advertisement or for profit websites which is a major indicator for quality.

RESPONSE: After revisions made to the manuscript to ensure what is presented is consistent with the aim of looking at the availability of information, the data pertaining to advertisements has been removed. We agree that this is an important aspect if reviewing quality, as there is clear potential for conflicts of interest and biased information being presented. However, as the focus is now strictly on the availability of information, this data is redundant.

REVEIWER: 7.This paper is not comprehensive enough to publish in BMJ open and authors need to make major revisions including the assessment tool to increase the possibility of acceptance.

RESPONSE: Following revision of the paper, as detailed above, to clearly focus on the availability of information for patients, in-line with recommendations from the Government white paper, we feel that the paper does now comprehensively addresses the revised research question. We agree that a much more detailed analysis of the quality of website content is the next step, but this was beyond the scope of the present study, as this would require an investigation of the reliability of the information presented.

Reviewer: Mr. Anthony Hui
Consultant Orthopaedic Surgeon and Clinical Director
James Cook University Hospital
Middlesbrough

REVEIWER: This paper is a survey of orthopaedic consultants' websites information. The conclusion is that important information is often absent and patients are unable to make informed choices. However, the criteria on which the websites were judged were entirely subjective and the paper did not provide sufficient evidence to clarify what information is linked to patients satisfaction and clinical results. For example, does personal involvement in teaching and research influence result of surgical treatment from the particular individual surgeon?

RESPONSE: This study aimed simply to evaluate the availability of information on individual surgeon websites. It was not part of the aim to link such information to surgical outcomes. To do this, would require the examination of clinical records or a large number of patients. It is not clear why the assessment criteria were believed to be subjective. The assessment tool, which was developed to include items that were deemed important for patient choice and those typically reported by surgeons, allowed the objective assessment of the availability of website content. In order to determine which parameters were linked to patient satisfaction, it would be necessary to know the patient satisfaction ratings for all of the websites, yet they did not all present such data. We have now included statistical analyses which illustrate the associations between patient satisfaction and involvement in teaching, research and publishing of research. However, we also discuss the limitations of this analysis, as it relies on all surgeons actually reporting if they are involved in these activities and also that they accurately report patient satisfaction scores (only half of the websites did so). This is clearly an interesting topic for future studies, and the discussion now includes the following text to suggest this, in addition to additional text in the method and results pertaining to the statistical analyses:

“Although there are a variety of different types of information available to patients to help them make healthcare choices, it is not clear how each of these items link to patient satisfaction and patient outcomes, and our analyses of the associations between patient satisfaction and involvement in teaching, research or publishing are limited by lack of consistency in reporting each item of information. Further research is needed to determine how different items of information link to patient satisfaction. For valid and generalizable results to be obtained, the mechanisms of obtaining patient satisfaction in different trusts will need to be standardised.”

REVIEWER: Morbidity and mortality is complex and without careful standardisation and adjustment, they can be open to mis-interpretation.

RESPONSE: We agree with this comment, as also made by another reviewer. The paper has been amended to discuss the issue of fully risk-adjusting mortality rates, as has received much interest in the cardiothoracic field. The following text has been added to the discussion at the end of the paragraph discussing mortality rates:

“Depending on a consultant’s area of specialism, it may be that they are referred specific cases which are higher risk. By presenting non-risk adjusted mortality rates could lead to some surgeons appearing to patients, through misinterpretation, as being riskier. Reported mortality rates should be fully risk-adjusted to ensure that appropriate comparisons can be made between different surgeons, and to avoid higher risk patients being declined surgery in an attempt to maintain low mortality rates⁶.”

REVIEWER: The obvious question on the subject is what information is important. This needs to come from patients as well as objective clinical outcome measures. This paper may be a useful follow up study once we have defined and validated the list of relevant information.

RESPONSE: This is a good point, which we had not addressed in our initial submission. The introduction now has additional text which deals with what information patients want, although at present, this information pertains mainly to the information presented on whole hospitals rather than individual consultants. An important step for future research is clearly to determine what information is useful to patients about individual consultants. However, we feel that a more important first step is to determine how consistent surgeons are at reporting the various items of information that we evaluate in this study. Only once information is presented on individual surgeons in a consistent manner can patients really start to understand the relevance of each item to comment on its usefulness. In addition to the text added in the introduction on this issue, we have added text to the method which

clarifies that the items included in part B of the template were determined through both the typical items reported by clinicians for self-promotion as well as those identified in the literature that patients find useful.

Reviewer: Bruce Mason
Research Fellow
University of Edinburgh
United Kingdom

REVIEWER: The research design is too narrow to adequately capture the research question as phrased. There are two elements to this.

RESPONSE: We agree with this comment, and it was made by a number of other reviewers. The main aim of the study was to evaluate the availability of the information on each website. However, the aim suggests that we also looked at website quality of information. To do this would require a much larger scale investigation that also looked at the accuracy and reliability of the information available. This was beyond the scope of the present investigation. We hope that the present study will pave the way for such studies in the future.

To address the issue raised by the reviewers, we have revised the paper to focus on the availability of information rather than the quality. We have also added the following text to the discussion:

“Further research is also needed to evaluate not just the availability of online information, but also the quality, accuracy and reliability of this information, and consistency of information reporting across different trusts.”

REVIEWER: 1) The search strategy deployed seems odd. The search engines chosen appear to miss out Bing (though it might be referred to under MSN). It also takes no account of how actual users might choose social media or use mobile devices to search for information.

RESPONSE: The search strategy employed was based on a previously published protocol for such a website content analysis in healthcare fields. As suggested, Bing is part of the MSN search engine. “(Bing)” has now been included after “MSN” in the method to clarify this. It would be extremely difficult to explore the use of social media and other peer to peer networks in the promotion of surgeons. The aim of this study was purely to examine information available to any users of the internet. The issue of social media, etc., however, is now discussed in the discussion as an area that requires further research. The following text has been added in the “policy implications and future research” section of the discussion:

“This study was an evaluation of the information availability in traditional web pages. In recent years, use of social media has seen a rapid expansion with the majority of people who surf the internet using social media (e.g. blogs, social networks, etc.)⁴⁴. Social media clearly, therefore, has a potential role to play in shaping how future healthcare choices are made⁴⁵. Future research should identify how patients use social media in making choices relating to their healthcare.”

REVIEWER: 2) The choice of content (web-pages) is likely to be fairly limited given the range of information sources and the increasing influence of 'peer-to-peer' networks of information (i.e. web2.0).

RESPONSE: We acknowledge that this is a limitation of the study. However, our desire was evaluate web-pages relating to individual surgeons, and the availability of information included in them. The

use of web2.0 is not as widespread as traditional websites, and as such, we wanted to evaluate the availability of information that would be access by the majority of people. The use of peer to peer networks in patient choice would be an interesting area for future research, in addition to other social media as discussed in the previous response.

REVIEWER: The study design is reasonably good at analysing content on web pages but only partially answers the question of whether there is "sufficient high quality online information" available.

RESPONSE: We agree with this comment which was also raised by another reviewer. In our revised paper, we have ensured that the focus remains on the availability of information, not website information quality.

REVIEWER: Methods adequately described. On the whole yes however the focus group which is mentioned has no associated information so it has hard to know what impact, if any, it had on the template.

RESPONSE: On reflection, we feel that the use of the term "focus group" was not the most appropriate, and complicated the process used in the development of the assessment tool. The tool was initially developed within our research team and then reviewed by the larger group of clinical and academic staff within our research group. This part of the method has now been updated to clarify this with the following text:

"An initial review of a selection of websites was used to identify typical items of information that are typically presented. These included their...any management experience. Prior to the main web site analysis, the assessment template was reviewed by clinical staff outside of the research team, including a consultant surgeon, a research physiotherapist, academic researchers, junior and senior medical doctors and nurses (n=18), to ensure that all relevant items had been included."

REVIEWER: Finally, for a content analysis, there appears to be little analysis of content. For example, were issues in reading age of the language addressed? What about use of mulitmedia (if present). What links were available and how did the page relate to other pages? The issues explored (presence of some stats) appears inadequate to assess the quality of the information.

RESPONSE: As discussed in other responses, the aim of the study was to evaluate the availability of information. As such it was not possible to determine the quality of information on each website. This has been addressed by revising the focus and ensuring that conclusions are not drawn in relation to quality as they were beyond the scope of the present study

REVIEWER: There is useful information in this paper but as it stands it does not go into enough depth of content analysis. In common with many research studies looking at webpages it fails to consider the impact of linking, role of multimedia and even web standards (e.g. is a page w3c compliant? Has it been tested for accessibility?) I'm keen to see studies like this progress hence I have scored it as needing a major revision rather than rejection.

RESPONSE: As now discussed in the introduction of the paper, the presentation of information about individual surgeons beyond cardiothoracic surgery is limited and relies mainly on the information presented in typically personal web pages or those of the surgeon's host institution. Our aim here was not to carry out a relatively simply evaluation of the information contained in these web pages to identify how consistently (or not) common items are reported. We hope that our findings support the notion that further developments are required, perhaps national online information resources, which would need to address the issues of multimedia and web standards that you suggest. However, we

feel that this is beyond the scope of the present study which was purely interested in the availability of information in these web pages.

VERSION 2 – REVIEW

REVIEWER	Dr.Lubna Daraz Postdoctoral Fellow Dept. of Psychiatry McMaster University Canada There is no conflict of interets.
REVIEW RETURNED	16-Jul-2012

GENERAL COMMENTS	The authors have made significant changes to their study which is much clear and comprehensive from previous version.
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REVIEWER	Anthony Hui Consultant orthopaedic surgeon and Clinical Director James Cook University Hospital Middlesbrough TS4 3BW
REVIEW RETURNED	09-Jul-2012

GENERAL COMMENTS	Just one minor correction. The authors stated a chnage to method by looking at the first 30 results through search engine. However, in reporting the results (P.12, line 34), it was still describing the first 5 results. Just need to chnage it to 30.
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