**Author’s response to reviews**

**Title:** Prognostic prediction tools and clinician communication: a qualitative study of the effect of the STUMBL tool on clinical practice

**Authors:**

Claire O'Neill (c.b.c.oneill@swansea.ac.uk)
Hayley Hutchings (h.a.hutchings@swansea.ac.uk)
Zoe Abbott (AbbottZK@cardiff.ac.uk)
Ceri Battle (Ceri.Battle@wales.nhs.uk)

**Version:** 1  **Date:** 31 Mar 2020

**Author’s response to reviews:**

Dear Professor Wiil

Thank you for your comments and the accompanying reviews of our paper. We are grateful to the reviewers for their constructive criticisms and we have made substantial changes to the paper to address these. We provide details of the changes below where we group the reviewer’s comments under five headings – title, abstract, order, methods, analysis and discussion/conclusions:

**Title**

I suggest you be more careful about the title of the article. In my opinion it would be better as "Prognostic prediction tools and clinician communication: a qualitative study on feasibility and acceptability of STUMBL". In current mode, it seems that "STUMBL" is your study abbreviation! (reviewer 1)

We would like to change the title to the following:

“Prognostic prediction tools and clinician communication: a qualitative study of the effect of the STUMBL tool on clinical practice”

**Abstract**

The propose of the study should replace from the methods to the end of background. So make some revision to summarize the whole background.
It is a bit disorganized and needs to be re-written in a consecutive manner. The definition of STUMBL study should also be included in this part and not the methods. (reviewer 1)

We have reorganised the abstract to better reflect the contents of the paper. The abstract now reads as follows:

Abstract

Background

In recent years, researchers and clinicians have been developing prognostic prediction tools (PPTs) as a way of identifying patients at risk of deterioration. The use of PPTs in the clinical environment not only impacts the risk of adverse outcomes for patients, but these tools also effect clinical practice. Much attention has been paid to the clinical usefulness of PPTs. But more insight is needed on how the use of PPTs impacts clinical practice. The objective of this study was to map some of the ways in which PPTs effect clinical practice.

Methods

The STUMBL (STUdy evaluating the impact of a prognostic model for Management of BLunt chest wall trauma patients) feasibility trial evaluated the use of a new prognostic prediction tool (PPT) to guide the management blunt chest wall trauma patients in the emergency departments (ED). The trial was undertaken between October 2016 and September 2018 and conducted at four sites in England and Wales. Nested within the feasibility trial was a qualitative study aimed at understanding how ED clinicians experienced and used the PPT. The qualitative methods included a focus group and telephone interviews with 12 ED clinicians. This study focused on participant perceptions of the feasibility and use of the STUMBL tool on clinical practice in the ED.

Results

Clinical practice is reshaped as a result of the introduction of the PPT into the clinical environment. The PPT has effects on communication between professionals, the “internal” conversation clinicians undertake while making treatment decisions, and communication between clinicians and patients.

Conclusions

The qualitative data collected offered useful insights into the ways in which the tool changes clinical practice. This was a small study of the effect of one kind of PPT on clinical practice. However, the study maps areas in which clinical practice is affected by the introduction of a PPT.
into the clinical environment. More research is needed to better understand these effects, and to understand how these tools become embedded in clinical practice over the longer term.

Methods

The reviewers made a variety of comments on the methods section of the paper. The recommendations included the following:

• To restructure the order of the section – introducing subheadings (reviewer 1)
• To provide more details of the STUMBL study (reviewer 1)
• To include details of the participants in the qualitative study, paying particular attention to experience of participants (reviewer 1)

The background and methods sections have been extensively rewritten to take into account the reviewers recommendations. We have included information on the STUMBL trail in both sections in recognition of the role of this trail both as background and its importance in influencing the conduct of the study. We have refrained by introducing subheading into the method section but have reordered the methods section so that each paragraph address a topic. Hence, paragraph 1 provides more details of the STUMBL trial, paragraph 2 introduces the data, paragraph 3 describes recruitment of interviewees, paragraph 4 describes the focus group, paragraph 5 describes the interviews, paragraph 6 describes data management and paragraph 7 describes the type of data analysis used. We have also included a table (Table 1) which provides details of the role of each of the participants included in this study.

Analysis

The reviewers offered a number of comments on the analysis section of the paper. These recommendations can be summarised as included the following:

• To summarise the themes identified in a table (reviewer 1, 2, 3)
• To add to the exploration of the qualitative data (reviewer 2)

We have summarised the data illustrating themes in a table, and have reorganised the analysis to discuss the identified themes. This reorganisation has led to a far shorter and more focused analysis section. We feel this reorganisation also aids the analysis allowing us to better explore the presented data as requested by reviewer 2.

Discussion/conclusions
Finally, while reviewer 3 felt the discussion and conclusion were well supported, other reviewers offered some suggestions on these sections of the paper. These included recommendations:

- To avoid conclusions that are not clearly based on the current study (reviewer 1)
- To underline limitations to the scope of conclusions (reviewer 4)

We have further refined the discussion and conclusions to better reflect the paper. Reviewer 4 raised a number of points around the validity and generalisability of the paper. We wholly agree that the results of this study cannot be generalised. Instead, the paper was originally conceived as an effort to map the implications and to call for further research on this topic. The have added a subheading in the Discussion setting to draw attention to the ‘limitations’ of the study, where we discuss the very significant limitations to this study.

We hope these changes address the reviewer comments and look forward to receiving your response.