Author’s response to reviews

Title: Implementation and feasibility of the Stroke Nursing Guideline in the care of patients with stroke: a mixed methods study

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Author’s response to reviews:

Dear Professor Bridget Johnston

We would like to thank you and the reviewers for the thorough review and comments. Below, we provide our responses to the comments, and explanations concerning the changes made in the manuscript. Concerning the numbering of the lines in the text of the manuscript, which we refer to in our responses, as a result of the changes made these differ from the numbers in the earlier version of the manuscript (and to the references in your comments). We hope, however, that our responses are clear and satisfactory. Thank you for considering our revised manuscript for publication.

Editor Comments:

BMC Nursing operates a policy of open peer review, which means that you will be able to see the names of the reviewers who provided the reports via the online peer review system. We encourage you to also view the reports there, via the action links on the left-hand side of the page, to see the names of the reviewers.

Reviewer reports:

Ann Rowat (Reviewer 1)

Comment 1. : This paper outlines the feasibility and implementation of stroke nurse rehabilitation guideline using a complex study design. This paper highlights important topic in
relation to the nurses' role in rehabilitation, which remains difficult to define. There are some issues the authors may wish to consider in relation to the structure of the article in order to focus why a nurse-specific guideline will ultimately provide optimal care for stroke patients and there is scope to simplify the methods and results sections to make the article easier to follow.

Authors: We would like to thank the reviewer for this comment, we appreciate that the reviewer acknowledges the importance of the study.

Comment 2: Abstract: the aim of the study is clearly stipulated, however, the results focused mostly on the changes to documentation/reported improvements (need to include improvement compared to what i.e. control group), but the barriers and facilitators and nurses views were not included albeit stated as aims of study. (shorten response on documentation and QIT) and add response barriers/facilitators and nurses experiences in results…)

Authors: We have made the changes advised by the reviewers. Among the changes made we have shortened the response on documentation and added information concerning the barriers and facilitators and the focus group interviews. Because we were beyond the word count limits we had to changes some wording in the abstract which now within the word count limits.

Comment 3: Background: this section could be restructured to highlight the importance of nursing specific rehabilitation in the context of their role as a key member of the MDT from the outset and the need for nurse rehab guidelines (this is not really addressed until page 6, line 139).

Authors: We agree with the reviewer on this comment. First, we moved a large part of the paragraph on pg. 6 line 139 to pg. 5, line 104 and there we emphasize the importance of evidence based nursing and the use of clinical practice guidelines (see pg. 5 lines 104-124).

Second, in order to emphasize the importance of nursing specific rehabilitation in the context of their role as a key member of the interdisciplinary team – we made a new paragraph focusing more on stroke nursing rehabilitation and training of activities of daily living on pg. 5, line 125-129. We think that this makes a more logical structure and that the topics which the guideline focuses are presented in a more logical way.

Comment 4: There is also number of specific issues listed (page 5) - i.e. painful shoulder, depression, falls and education, but it is not clear why these areas are highlighted when the guideline includes 211 recommendations across a range of topics. Some of this could also be aligned to the previous publication by Hafsteinsdottir et al (2013) and should state clearly the
importance on building on these findings to determine implementation i.e. the novel aspect of the current study.

Authors: We have changed the paragraph emphasizing the work we did in developing the Clinical Nursing Rehabilitation Stroke Guideline Stroke (CNRS-Guideline) which served as a basis for the current Icelandic SNG guideline. We do think that this work is more clearly presented as a basis for the SNG guideline. It was found important to describe the background and theoretical context for the main topics of the SNG-guideline, like “painful shoulder, depression, falls and education” which are the main topics of the SNG-guideline.

Further, in the lasts paragraph pg. 7, where we focus on the feasibility of clinical practice guidelines, we added the following sentence elaborating on the findings of the feasibility study: Despite the evidence found for the usability of the CNRS guideline, the fact that it was extensive, including many recommendations it was found difficult for implementation [35]. (pg. 7, lines 172-174).

Concerning the number of recommendations, the SNG-includes only 23 recommendations from the original 211 recommendations in the CNRS-guideline. We do state this on pg. 10, line 240: “The final SNG included a total of 23 recommendations, categorized in: activities of daily living and mobility and falls (14 recommendations), pain (3 recommendations); depression (3 recommendations); patient education (2 recommendations) and discharge planning (1 recommendation)”. Also, when responding to other comments made by the reviewers, we have added much more information on the SNG, aims, development and description of the final SNG on pg 10 and 11. We hope that this is more clear now.

Comment 5:

Methods (page 8): The methods used mixed methods, which are appropriate for complex interventions. However, the section is very challenging to read and could be simplified and streamlined in terms of phases of study (see a). The phases of the study were listed and some of the detail overlaps with how data was collected rather than stating the study design appropriate to address specific questions (see b). The timeline was broadly discussed in terms of data collection, but dates between implementation and post test follow-up etc need to be clearly stated and included in the flow chart (fig 1) (see c) as this has implications for results.

Authors: In responding to these comments on the methods section we provided the following changes:

a) We eliminated some sentences like: ]. Pre-test measures of patients served as a control group for the intervention group which was measured post intervention. The nursing staff was the same throughout the study (lines 184-186).
b) In order to clearly and appropriately state the study design to address specific questions, we added the following sentence: This study used a sequential explorative mixed method design [42], including pre-test post-test measures [41] and focus group interviews [42]. The pre-test post-test measures were chosen to measure if there was a difference in nursing staff documentation of the screening and application of interventions whereas the focus group interviews addressed the nurses’ and auxiliary nurses’ view of implementing and using the SNG.

c) Dates have been added to figure 1.

d) Concerning the first paragraph in the methods section, we adapted and shortened the text in the first paragraph which hopefully makes the message more clear. The text is now as follows (pg. 8 line 188-pg. 9 line205): This study used a sequential explorative mixed method design [42], including pre-test post-test measures [41] and focus group interviews [42]. The pre-test post-test was chosen to measure the difference in nursing staff documentation of the screening and application of interventions, whereas the focus group interviews explored the nurses’ and auxiliary nurses’ views of implementing and using the SNG. The study was conducted in three phases: In phase one (February 2012 to February 2013) pre-test retrospective patient record data were collected from: a) patients’ electronic nursing documentation system (ENDS-system) on screening and application of key interventions in stroke care which included items focusing on: activities of daily living, falls, pain, depression, patient education and discharge planning, and b) registered nurses and auxiliary nurses answers on the Barriers and Facilitators Assessment Instrument (BFAI) [43] and the Quality Indicators Tool (QIT) reflecting the SNG. In phase two (April 2013 to the end of December 2013) the SNG was implemented using evidence based strategies including education and training, opinion leaders, posters and reminders [44, 45]. In phase three (February 2014 to February 2015), the posttest measurements were conducted with nurses and auxiliary nurses and patients assigned to the intervention group (February 2014 to February 2015). The focus group interviews were conducted with a subgroup of nurses and auxiliary nurses in October and November 2014 (Figure 1). Hereafter, nurses and auxiliary nurses are generally referred to as nursing staff.

Comment 6:

In the stroke guideline (page 9) section make it clear how nurses use it and what the nurses are expected to document (albeit training is provided as stated in page 13). This should made more clear so it aligns to data collection section i.e. that highlights the recommendations for each of the areas. The validity and reliability of QIT (a tool developed by authors)
Authors:

a) We have added information concerning the content of the SNG and how it should be used (see pg. 10 and 11, lines 221 to 253).

b) First we added information concerning the selection/identification of recommendations based on the literature and thereby added the following sentence (pg 10, line 226-228): The authors, who all have extensive experience in stroke care and research, made the first selection of important interventions based on the literature, which were formulated as recommendations for the SNG.

c) Then on pg. 10-11, lines 240-253 we adapted and added information to the text which now is as follows:

The final SNG included a total of 23 recommendations focusing on assessment and therapeutic interventions categorized in the following areas: 1) activities of daily living and mobility and falls (14 recommendations), 2) pain/shoulder pain (3 recommendations); 3) depression (3 recommendations); 4) patient education (2 recommendations) and 5) discharge planning (1 recommendation). The guideline also included thorough instructions with photos on how to use the recommendations, with chapters on: background information, definition of concepts, flow-scheme of how to use the guideline, recommendations for the assessment of various outcomes including: mobility and activities of daily living using, the Functional Independence Measure (FIM) [48]; risk of falls using the Morse Fall Scale (MFS) [49]; shoulder pain using a visual analogue scale; depressive symptoms with Patient Health Questionnaire-9 (PHQ-9) [52,53] and recommendations focusing on therapeutic interventions for the aforementioned areas as well as appendices with the instruments and instructions with photos on how to assist patients with mobility, exercises and positioning. The SNG guideline was made ready to use in a digital, online form as well as a 32 page manual including a plasticized card (pocket size) which was available for all staff.

d) Concerning the QIT tool, we only conducted an evaluation of the face validity, which we had left out in our original version of the paper. We now have added a description of that in the text, pg. 13, line 302-313 and now this text is as follows:

The face validity of the QIT was evaluated by a group of five experts and included clinical nurse specialists and nurse researchers with extensive experience in stroke nursing and rehabilitation, who reviewed the statements and concluded that the 30 statements were relevant for the daily care and rehabilitation of patients with stroke. Further psychometric testing of the QIT needs to be conducted. The QIT statements focused on the main areas of the SNG: a) mobility and activities of daily living (7), b) falls (1), c) depression (9), d) pain/shoulder pain (5), e) patient education (5) and f) discharge planning (3). The QIT statements were scored on a five point Likert scale (almost never or <10% to very often or >90%).
Comment 7:

Results (page 15) - throughout this section it is stated there are improvements in documenting but this needs to clearly stated in terms of the controls and pre-post test design/bias. The qualitative outcomes are included in terms of reporting in text/table did not seem to be fully reported as per what was expected in analysis.

Author:

a) To clarify the text concerning improvements made in the documentation, we have added the p-value into the text to emphasize the significant changes made. Thereby the text (pg. 17 line 400-407) has been changed to: “Significant improvement was found on the six following items: a) three items in ADL and mobility: Assess with FIM< 72 hours of admission (p=0.002), Mobilization facilitation within 24 hours(p=0.024), Training of ADL (p=0.022) and b) three items on patient education: Patient education (p=0.001), Educational brochure provided (p=0.000) and Education repeated (p=0.049). No change was found in the documentation of five items (4 pain variables, 1 depression). Significant worse documentation was found for the item Patients asked about pain (p=0.012), whereas the worse documentation on the remaining eight items was non-significant (3 ADL, 4 pain, 1 depression) (Table 4).”

We also added the p-value in the section Difference in the use of the SNG measured with the Quality Indicator Tool and adapted the text (pg. 18, line 412-416) accordingly: “Assist and supervise patient with exercises according to physical therapists recommendations (p=0.023). Improvement was shown in four (of eight) indicators on Depression, with significant improvement for three items: Assess symptoms of depression with a depression scale (p=0.033), Take time to talk with patient (p=0.046), Take time to talk with family (p=0.046).”

b) Qualitative findings: Because we did not want the results section to be too long and extensive (and to keep the text within the word count limits), we had made the decision to report the findings of the focus group interviews in a narrative way and not to include the quotes. This was done in order to have the text as compact and clear as possible. We now realize that the focus group results are not clear and therefore now we have added the relevant quotes to the categories into table 6. We hope that the qualitative results are more clearly reported now (see also comment 28, reviewer 2).

Comment 8:

Discussion: The findings were well discussed in this section. Need to highlight the difference between documenting/related improvements rather than the importance of a difference in
patients outcomes before and after the intervention was implemented (i.e. future research that is warranted).

Authors: Indeed this is an important point. Therefore we have added the following sentence into the discussion on pg. 21, line 491-493: It is however important to note that our study measured the documentation by the nursing staff and not the patient outcomes.

Comment 9:

There was scope to discuss the limitations of study design in more depth i.e. different patients pre and post test; the length of time between training and post test and the of measures in terms of improvements in documentation rather than patient outcomes. Further research is warranted, but scope to state more specifically what next (i.e. see above).

Authors: In line with the earlier comment, we added and adapted the last sentences in the limitation section on pg. 25, line 572-578: “Some may consider the design of the study to be limited by the fact that we measured difference in the nurses documentation of SNG key interventions before and after implementation and not difference in patient outcomes. It is important to note that this study was not an outcome study, but a feasibility study investigating the usability of the SNG and documentation of interventions is an important parameter in measuring usability. Further, robust outcome studies are warranted to investigate the effects of the SNG on various patient outcomes including larger samples with a longer follow-up period.”

Comment 6:

Tables/figures: there are too many and some i.e, table 1 could be included as supplementary data; table 5 the order of before and after should be other way round.

Authors: We have changed table 1 which now is a supplementary data and does not count as a table and the other remaining tables have new numbers. The order of before –after (SNG and control) have been changed to “pre-test group” and “post-test group” in both table 3 and 4 (which were number 4 and 5 in the earlier version of the manuscript).
Lisa Kidd (Reviewer 2):

Comment 10

Many thanks for submitting this manuscript. IT was an interesting read and I think it could make an important contribution to the evidence base. I have made some detailed minor comments here for the authors to consider. My main point that the authors need to address is the approach to the methodology. As a mixed method study, this needs to be framed in this way and a description of this added into the methodology/methods section.

Authors: We would like to thank the reviewer for the thorough reviewing. Concerning this comment about further framing the mixed method design we have elaborated further on the text in the design section (see also comment 4 reviewer 1) and adapted the text on pg. 8, line 188-192, adding better description of the design (Creswell 2009: pg. 14) as follows: This study used a sequential explorative mixed method design [42], including pre-test post-test measures [41] and focus group interviews [42]. The pre-test post-test was chosen to measure the difference in nursing staff documentation of the screening and application of interventions, whereas the focus group interviews explored the nurses’ and auxiliary nurses’ views of implementing and using the SNG.

Comment 11

The other point which relates to that is that the authors frequently comment on the richness afforded by both the quantitative and qualitative data yet the paper appears to rely on reporting the quantitative data mostly. There are comments about how the qualitative data supports or adds more detail to the findings yet there are no examples that appear to have been given from the qualitative focus group data. I'd be expecting to see some of these examples in there in the typical style of reporting qualitative data (e.g. quotes and identification symbols) given the mixed method approach. Without this, it is difficult to determine whether the conclusions in the paper are supported by the study findings.

Authors: As noted earlier (see comment 4 reviewer 1) because we did not want the results section to be too long and extensive we had made the decision to report the findings of the focus group interviews in a narrative way and not to include the quotes. This was done in order to have the text as compact and clear as possible. We now realize that the focus group results are not clear and therefore we have added all relevant quotes to the categories in table 6. We hope that the qualitative results are more clearly reported now.
Comment 12:

Page 4, line 83 - change in the long-run to 'in the long-term';

Authors: This has been changed.

Comment 13:

Page 5/6, lines 109-129 - these paragraphs seem a little out of context here - the introduction moves from considering the issues that stroke survivors experience post stroke to the importance of the nursing role in rehab and then back to the issues stroke survivors face - can these sections be subsumed within the earlier part of the introduction to set the scene for the issues that strokes survivors face post stroke?

Authors: We agree with the reviewer here and have rearranged the introduction which now focuses on a) stroke – and rehabilitation; b) neuroscience nurses and evidence based care; d) importance of nursing rehabilitation focusing on activities of daily living, e) painful shoulder, f) depression, g)falls and h) education and ending with i) MRC-model – feasibility studies and J) aims of the study. We do think that this change has improved the structure of the introduction.

(see pg. 5 and 6 lines 104-129 and pg. 7 lines 163 to 174, also see comment 3 from reviewer 1).

Comment 14:

Page 7 - I think the argument for why nurses specifically don't use interdisciplinary guidelines (and hence the rationale for the need to develop a nursing specific one) needs to be made more explicit here.

Authors: We agree with the reviewer on this issue. Indeed there are many various reasons for why implementation of clinical practice guidelines is not successful. We adapted the sentence and provide an extra reference for this. The sentences are now as follows: “Although many Interdisciplinary Stroke Practice Guidelines have been developed for the rehabilitation and management of patients with stroke, these guidelines are often not routinely incorporated into daily nursing practice. Among the reason for this is the fact that these guidelines often lack information about early detection of problems using valid and reliable instruments and interventions relevant and feasible for nurses to use in the daily context of stroke care and are not routinely incorporated into the daily patient care [4, 30, Achterberg et al. 2008]. (see pg. 5 line 107-113).
Comment 15:
Page 8, lines 159-162 sound clumsy and need rewording.

Authors: This sentence (pg. 7, line 163-166) has been changed as follows: The Medical Research Council emphasizes the importance of evaluating feasibility and implementation of complex interventions like guidelines, in terms of acceptance by health care professionals, the nursing staff knowledge and skills and the facilities needed for implementation.

Comment 16:
Page 8, line 174 - should read 'what are' rather than what is

Author: We have changed the following sentences (pg. 8, line 182-183) as follows:

b) What are the nurses’ and auxiliary nurses’ view of using the SNG in daily nursing care? c) What are the nurses’ and auxiliary nurses’ view of implementing the SNG?

Comment 17:
Page 8 - With the way the questions are currently worded, I would question what the difference is between 'using' and 'implementing' - I think the authors should consider rewording the questions e.g b) 'what are nurses' and auxiliary nurses' views on the acceptability of using the SNG in supporting the provision of daily nursing care and c) what are nurses' and auxiliary nurses' views on barriers and facilitators to implementing and embedding the SNG within routine daily nursing care?

Authors: We agree with the reviewer on this issue and have changed the wording of the research questions accordingly: b) What are the nurses’ and auxiliary nurses’ view on the acceptability of using the SNG in supporting the provision of daily nursing care? c) What are the nurses’ and auxiliary nurses’ views on barriers and facilitators to implementing and embedding the SNG within routine daily nursing care? (pg. 8 lines 181-184).

Comment 18:
Methodology - I would have expected to see something about the mixed methods methodology and at what point the two data sets were integrated and why. Could a paragraph be added to explain this.
Authors: We have elaborated on the description of the mixed methods methodology in the methods section, see our extensive response to comment 5 made by the first reviewer. Also, integration of quantitative and qualitative data is described in the data analysis section (pg. 16 lines 374-375).

Comment 19:

Page 9, line 184 and 185 - it wasn't clear what "patients' items on screening and application of key interventions in stroke care" comprised in terms of data collected or measurement tool used - could be made more explicit here the nature of the data that was gathered from patients' notes - or add a signpost to where in the text this is described as I note the authors describe this in more detail later on.

Authors: we have added the information suggested by the reviewer and the sentence is now as follows: a) patients’ electronic nursing documentation system (ENDS-system) on screening and application of key interventions in stroke care which included items focusing on: activities of daily living, falls, pain, depression, patient education and discharge planning. (pg. 8, lines195-197).

Comment 20:

Page 9, lines 188-189 it is stated that the 'SNG was implemented applying recommended implementation strategies [44, 45]' - could a few examples of what these implementation strategies were be added here? Or signpost to later in the text where they are described in more detail.

Authors: We have added to this sentence: “including education and training, opinion leaders, posters and reminders. Now this sentence is as follows: In phase two (April 2013 to the end of December 2013) the SNG was implemented using evidence based strategies including education and training, opinion leaders, posters and reminders [44, 45].(pg. 9 line 200).

Comment 21:

Page 10, line 198 - "conducted at a neurology and rehabilitation wards" - remove 'a'

Authors: We have changed this.
Comment 22:

Page 10, line 215 - "Also, it was based on the CNRS-Guideline [29]." - could something be added here to state what this guideline is and who it's aimed at to give it a bit of context.

Authors: We have added the aims of the SNG into this paragraph, which now starts as follows:

The Stroke Nursing Guideline (SNG) aims to provide an overview of evidence based recommendations for the daily nursing care and rehabilitation of patients with stroke.

Also we had added more thorough information on the development and the content of the SNG (See our responses to comment 6 reviewer 1, pg. 4 and comment 23, here below). (pg. 10, lines 221 (aims) and 223-253 for further information on the guideline).

Comment 23:

Page 10 - "group of 20 interdisciplinary professional experts critically reviewed the content, readability, layout and usability of the guideline." Given that the guideline was specifically developed for nurses, I'm surprised that it was reviewed by an interdisciplinary team - were there any differences between the professionals as to what they thought about the guideline and its content?

Authors: Among important aspect of implementation and acceptability of new guidelines like the SNG is the fact that all professionals involved in the care and treatment in this case, of patients with stroke agree and support the guideline. Therefore it was found important to involve this group of professionals to review the content, readability, layout and usability of the guideline. There were no specific differences between the professionals in their views about the SNG. The professionals all agreed generally on the content of the guideline recommendations and their comments mainly focused on the readability, layout and usability of the SNG. Based on this comment we have adapted the text in this paragraph as follows: Among important aspect of implementation and acceptability of new guidelines like the SNG is the fact that all professionals involved in the care of patients with stroke agree and support the guideline. Therefore, we approached a group of 20 interdisciplinary professional experts, to critically review the content, readability, layout and usability of the guideline. These experts included: nine nurses and of these seven worked on the wards, all with BSc degree in nursing and long experience in neuroscience nursing, of these four had a MSc degree and two had a PhD degree; six physical therapists, two occupational therapists; one psychologist; one rehabilitation physician and one neurologist. These professionals all agreed on the content of the guideline recommendations and their comments mainly focused on the readability, layout and usability of the SNG. There were no specific differences between the professionals in their views about the
SNG and based on the expert feedback, the guideline was adapted and optimized. (pg. 10, lines 229-239).

Comment 24:

Page 13 (and figures) - I think referring to the group of nurses on which pre-test measures were conducted is confusing as they are not a control group that are separate from the ones who undertook the intervention (i.e. the implementation of the SNG). Could they be labelled differently to avoid confusion? E.g. just pre and post test/before and after intervention?

Authors: Indeed, this may be confusing. We have changed this and refer to the groups as pre-test and post-test groups.

Comment 25:

Page 13, lines 272-275 - can the authors please describe more explicitly what was asked in the QIT statements and the purpose of the tool was and how this aligned with or informed the focus groups? Was the intention of this tool to gather preliminary data that could be used as prompts in the focus groups? When was the QIT used; immediately post intervention or during the intervention? Given that the QIT was developed for the study, can the authors provide some description of how it was tested prior to use?

Authors: The QIT statements inquired if the nurses generally provided care according to the recommendations and were phrased as follows: “I conduct assessment of mobility and self-care activities on admission with a) the FIM-scale, b) the scale in the electronic patient health records, c) both FIM scale and the scale in the electronic patient health records. (pg. 13, lines 305-308).

Data-collection period is described in the methods section, pg 8-9, lines 193-205).

To provide more thorough description of this we have changed the paragraph which now is as follows: The use of the guideline was measured with a Qualitative Indicator Tool (QIT), developed by the authors, based on the SNG recommendations as and included 30 statements, for the nurses. The QIT statements focused on the main areas of the SNG: a) mobility and activities of daily living (7), b) falls (1), c) depression (9), d) pain/shoulder pain (5), e) patient education (5) and f) discharge planning (3) and inquired if the nurses generally provided care according to the SNG-recommendations and were phrased in line with the following statement as an example: “I conduct assessment of mobility and self-care activities on admission with a) the FIM-scale, b) the scale in the electronic patient health records, c) both FIM scale and the scale in the electronic patient health records”, which were scored on a five point Likert scale (almost never or <10% to very often or >90%). The face validity of the QIT was evaluated by a group of five experts and
included clinical nurse specialists and nurse researchers with extensive experience in stroke nursing and rehabilitation, who reviewed the statements and concluded that the 30 statements were relevant for the daily care and rehabilitation of patients with stroke. Further psychometric testing of the QIT needs to be conducted (see also Comment 6 from reviewer 1, pg. 4, see also pg. 13 lines 301-313).

Comment 26:

Page 15, line 327 - should read 'studied repeatedly'

Authors: this has been changed.

Comment 27:

Page 18, line 378 - "The nursing staff view of the general usefulness of the SNG scored a mean of 7.7." - can a few words be added to highlight the meaning of this score...e.g. was it good or poor?

Authors: Because we stated this question at the end of the focus group discussion, we moved this information from the beginning of the paragraph to the end of the paragraph which is more logical. We also have added some further explanation concerning this question and now the sentence is as follows: At the end of the focus group discussion, the nurses and auxiliary nurses participating were individually asked to rate their view of the general usefulness of the SNG on visual analogue scale (ranging from 1 indicating not useful to 10 indicating very useful) which was valued with a mean score of 7.7 (range 5.5-9.0) (Table 6).

Also we changed the following paragraph concerning their view on the success of implementation, which now is as follows: Contrary to these results, the nurses and auxiliary nurses reported positive experiences, when asked to rate the success of implementation on visual analogue scale (ranging from 1 indicating not successful to 10 indicating very successful) which was valued as successful with a mean score of 7.5 (range 6.0-8.5). (pg. 18 lines 429-432 and 437-440).

Comment 28:

Page 17 - in relation to the sections which described the nurses views on the usefulness and the implementation of the SNG - I would have expected this section to be supported with evidence from the qualitative data. At the moment the data reported is from the quantitative tool only with
no data evidenced from the qualitative component. Some example quotations to illustrate these findings are needed.

Authors:

Concerning the reporting of the qualitative findings, as we did not want the results section to be too long and extensive we decided to report the findings of the focus group interviews in a narrative way and not to include the quotes. This was done in order to have the text as compact and clear as possible. We agree with the reviewer that the qualitative results are not fully clear and therefore we added the relevant quotes to the categories in table 6. We hope that the qualitative results are more clearly reported now. (See also comment 7.b. reviewer 1).

Comment 29:

Were there any differences in the perceptions of nurses who worked on different wards? Was there anything about the context of working in a rehab versus neurology ward for example that might have influenced how the SNG was used or implemented? OR for example, any differences between nurses who had been qualified for longer?

Authors:

The focus group interviews were conducted with nurses and nursing auxiliaries from both wards. No differences were identified between the nurses or nursing auxiliaries from the two different wards. However, as expected not all recommendations were used by the nursing auxiliaries, like the use of the recommended instruments, which were not used by the nursing auxiliaries.

Comment 30:

Discussion - reference is made to how the qualitative data supports the findings however there is no evidence of the qualitative data being reported on in a typical qualitative manner in the results section so this needs addressed.

Authors: We would like to refer the reviewer pg. 18 and 19 were we provide narrative description of the qualitative findings and have provided quotes from the nurses taking part in the focus group interviews (table 6). We do think that we have provided explanation in our responses to comment 28, reviewer 2 and comment 7b, reviewer 1.
Comment 31:

Page 20, line 424 - "The nursing staff judged the implementation to be successful" - in what way? Can you provide some examples as to why they thought it was successful here?

Authors: We have added some explanation and examples to this statement and now these sentences are as follows: The nursing staff judged the implementation to be successful, which was rated with the mean score of 7.5. The reported that they had taken an active part in the implementation. The implementation had brought a totally new view on mobilization in daily care and they found that consistent and coherent leadership had been provided during implementation.(pg. 19, lines 429-432 and 437-440).

Comment 32:

Page 20, line 428-9 “At the time of the implementation of the guideline, severe organizational and budgetary restrictions were taking place." - can you describe these in more detail please and consider how they might have influenced the process of the study itself but also the findings and their interpretation?

Authors: Indeed there were organizational changes taking place and severe financial budgetary restrictions. This led to intense workload of nurses and unprecedented staffing shortages all taking part at the same time. This may indeed have influenced the implementation process and the findings as well.

In the limitation section we have added a more thorough explanation concerning this in the paragraph explaining how this may have influenced the study, study findings and the interpretation of the findings as well.

This part of the paragraph is now as follows: “The fact that the study took place on only two wards within the same hospital and the fact that the sample of nurses participating was a small convenience sample, which was due to intense workload of nurses, unprecedented staffing shortages, including organizational changes occurring at the same time, and is in line with earlier studies (McCloskey et al 2008, Fink et al 2005, Hafsteinsdóttir et al. 2013). Therefore caution is indicated in generalizing the results of this study to other nurses in different organizational settings. However, the demographic data from both nurses and patients participating in our study do reflect the Icelandic population “(see pg. 24, line 557-564).
Comment 33:

Page 21, lines 462-3: "Application of the SNG recommendations was quite satisfactory as three out of four items were used." - which items were these - I think throughout the text the authors refer to 'items or statements' with little context or description given as to what these are.

Authors: Indeed this seems to be complicated. However this concerns the items of the QIT.

We have added explanation into this sentence which now is as follows: After implementation of the SNG, the application of the SNG recommendations was quite satisfactory as three out of four items on the QIT were used (pg. 22, lines 513-518).

Comment 34:

Page 21, lines 462-471 - the authors needs to be more explicit in this section that the SNG didn’t improve screening or management of depression (if I’ve picked up the results correctly) - can the authors please comment on this and offer an interpretation for why this might have been the case or if the SNG needs some element of revision based on this?

Authors: We do consider that the SNG improved the screening of depression (which may have improved the management of depression). We have changed the text in this paragraph accordingly as follows: Depressive symptoms were only measured post-intervention as the nurses did not conduct screening of depression prior to the implementation of the SNG. After implementation of the SNG, the application of the SNG recommendations was quite satisfactory as three out of four items on the QIT were used. This was supported by the qualitative findings of the focus group interviews showed that the nurses paid more attention to depression and they used the PHQ-9 for screening. (pg. 22, line 513-517).

Comment 35:

Page 23, line 510-12 "The mixed method design provided rich data. The findings of the qualitative part were illustrative of the findings of the quantitative findings of the study to which they provided more depth.." - this might be so but the qualitative evidence hasn't been sufficiently included to be able to confirm this as a reader.

Authors: As we have explained in our responses to the earlier comments (see our responses to the earlier comments made: comment 7 reviewer 1 and comment 28 reviewer 2).
Authors: In our earlier response to one of the comments we, we have provided further explanation and this paragraph is now and therein we refer to “robust… in relation to an outcome study: “Some may consider the design of the study to be limited by the fact that we measured difference in the nurses documentation of SNG key interventions before and after implementation and not difference in patient outcomes. It is important to note that this study was not an outcome study, but a feasibility study investigating the usability of the SNG and documentation of interventions is an important parameter in measuring usability. Further, robust outcome studies are warranted to investigate the effects of the SNG on various patient outcomes including larger samples with a longer follow-up period”.

Authors’ note concerning additional references: Due to the fact that we needed to rearrange the text we also needed to rearrange the references and therefore the numbers of the references has been changed accordingly. Also we have added the following references which were relevant for the content and because of the changes made in the text:


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Authors: The manuscript had been edited by American Journal Experts.