

Re: Revised manuscript 32548

Dear Editors,

We really appreciate your careful review of our manuscript entitled “Confirming longline position in neonates – survey of practice in England and Wales”, and it is our great pleasure to have been given the opportunity to revise the manuscript. We wish to extend our thanks to the reviewers for their helpful comments. We used the comments to revise the manuscript and we strongly believe that this has contributed to a stronger paper that your readers will find engaging. In addressing the comments we wish to note the following:

**Step 1. Please revise your manuscript according to the reviewers’ comments**

Each of the points raised by the reviewers is addressed.

**Reviewer’s code:** 02488399- Results are re-written. Thank you

**Reviewer’s code:** 02736604-Abstract- Results: rewritten, in both numbers and percentages. Main text - Results: are rewritten and data are given in both absolute number and percentages. Results are now clearer to read and understand. Thank you

Discussion: The relevance of ultrasound has been added. Thank you

Conclusions- third last line: what "24/7" has been amended and made clear. Thank you

References: References at the end of the text have been amended to be in line with journal guidelines. Thank you

**Reviewer’s code:** 00742196

Comment accepted . Thank you

**All of the revisions made are cited and highlighted in the updated version of the manuscript.** Thank you

**Step 2. Please update the manuscript according to the Guidelines and Requirements for Manuscript Revision-Basic Study.** We have revised the manuscript very carefully and hope that it will now meet the journal’s high standards.

**Step 3. Please provide the scientific research process.** This report should answer the following questions:

1 What did this study explore?

Percutaneous central venous lines (long-lines) are commonly used in neonatal practice. Correct placement is important to avoid complications such as extravasations of fluids into pleural, peritoneal, pericardial and subcutaneous compartment. We aimed to explore the current practice and also the use

of contrast for confirming longline position immediately after insertion of a longline in neonatal units in England and Wales.

As we know the most common method is the use of plain radiography. But there are concerns about poor intra- and inter-observer reliability. Other modalities e.g. echocardiography and CT might be more reliable but are not readily available in most units. Use of contrast can help with recognition of unusual patterns of contrast medium dispersal and lead to easier identification of catheter malposition when combined with radiographs.

## 2 How did the authors perform all experiments?

Discussions with relevant departments in our Institution, led to the conclusion that this study was a review of practice and hence no ethical approval was felt to be necessary. After registration with the audit department of our Institution, we conducted a telephone survey of 170 Neonatal Units (37 Special Care Baby Units, 81 Local Neonatal Units and 52 Neonatal Intensive Care Units) across England and Wales over the period from January to May 2016. Data was collected on specifically designed proformas. We gathered information on Unit Level designation, whether the unit used longlines and specific type(s) used, the modality used to confirm longline tip position, and whether guide wires were routinely removed and contrast injected to determine longline position. The responders were primarily senior nurses.

## 3 How did the authors process all experimental data?

All the responses from telephone survey were collected on specifically designed proformas. Collected data were given to audit department. Data were tabulated in excel format and then values were derived.

## 4 How did the authors deal with the pre-study hypothesis?

Our study was a review of practice and as such we carried out a survey across England and Wales to establish current practice.

## 5 What are the novel findings of this study?

We had 100% response rate. Out of the total neonatal units surveyed (170) in England and Wales, 141 units used longlines. 68% of Local Neonatal Units using longlines, used ones that came with guide wires; a similar percentage of Neonatal Intensive Care Units (60%) did the same. All of those units used radiography, plain X-Rays, to establish longline tip position. Overall, only 35% of the units using longlines were using contrast. It was interesting to note that use of contrast increased as one moved from Special

Care Baby Units (25%) to Local Neonatal Units (28%) and Neonatal Intensive Care Units level (46%) designation. Focusing on those units using longlines with guide wires, 76% of Local Neonatal Units were not removing wire to use contrast; this figure was 58% for Neonatal Intensive Care Units.

The study establishes that in the UK, neonatal units overwhelmingly rely on plain radiographs for establishing longline tip position and despite evidence of its usefulness; contrast is only used in a third of units. We also confirm that other modalities that might be more accurate are not used routinely in neonatal units in the UK.

**Step 4. Please provide an Audio Core Tip.**

The Audio Core tip has been uploaded. Thank you

**Step 5. Please subject the final title of the manuscript to Google Scholar search, and store screenshot images of the results.**

Screenshot images of the result are attached. Thank you.

**Step 6. Please provide the files related to academic rules and norms.**

32548-Institutional review board statement- This is a review of practice study and as such no IRB statement was necessary. The study was registered with the audit department of our Institution.

32548-Institutional animal care and use committee statement-No procedure including animals was involved in this study, therefore it is not applicable to our study. Thank you

32548-Animal care and use statement- No procedure including animals was involved in this study, therefore it is not applicable to our study. Thank you

32548-Biostatistics statement- We have not done any biostatistics (we only have absolute numbers and percentages).

32548-Conflict of interest statement- Included in the Copyright statement which is signed and attached. Thank you

32548-Data sharing statement-Included in the Copyright statement which is signed and attached. Thank you

**Step 7. Please provide the approved grant application form(s) or funding agency copy of any approval document(s)/letter(s).** Our manuscript is not supported by any foundations, therefore above is not applicable to our study.

**Step 8. Please revise the language of your manuscript.** Language has been edited. Thank you

**Step 9. Please sign the Copyright Assignment form.** Copyright Assignment form is signed and attached. Thank you.

**Step 10. Submit the revised manuscript and all related documents.** Attached in the email. Thank you

Thank you so much for your help and support! I hope that the present manuscript is suitable for publication in World Journal of Clinical Paediatrics.

Yours sincerely,

Dr.Arunoday on behalf of all authors.