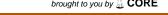
REVIEW ARTICLE





Clinical practice guideline on atraumatic (pencil-point) vs conventional needles for lumbar puncture: Endorsement by the Scandinavian Society of Anaesthesiology and Intensive Care Medicine

Marius Rehn^{1,2,3} | Michelle S. Chew⁴ | Klaus T. Olkkola⁵ | Kristinn Ö. Sverrison⁶ | Arvi Yli-Hankala^{7,8} | Morten Hylander Møller⁹

Correspondence

Marius Rehn, Pre-Hospital Division, Air Ambulance Department, Oslo University Hospital, Oslo, Norway. Email: marius.rehn@norskluftambulanse.no

Funding information

Funding was provided solely from the SSAI and institutional and/or departmental sources.

The Scandinavian Society of Anaesthesiology and Intensive Care Medicine Clinical Practice Committee endorses the BMJ Rapid Recommendation clinical practice guideline on atraumatic (pencil-point) vs conventional needles for lumbar puncture. This includes the strong recommendation for the use of atraumatic needles for lumbar puncture in all patients regardless of age or indication.

1 | BACKGROUND

Anaesthesiologists and intensivists regularly perform lumbar punctures for therapeutic or diagnostic purposes. A common

complication after lumbar puncture is sustained leakage of cerebrospinal fluid from a dural tear potentially causing debilitating postdural-puncture headache. It is recognized that needle design may

¹Pre-Hospital Division, Air Ambulance Department, Oslo University Hospital, Oslo, Norway

²The Norwegian Air Ambulance Foundation, Oslo, Norway

³Faculty of Health Sciences, University of Stavanger, Stavanger, Norway

⁴Department of Anaesthesia and Intensive Care, Medicine and Health, Linköping University, Linköping, Sweden

⁵Department of Anaesthesiology, Intensive Care and Pain Medicine, University of Helsinki and Helsinki University Hospital, Helsinki, Finland

⁶Department of Anaesthesia and Intensive Care Medicine, Landspitali University Hospital, Reykjavík, Iceland

⁷Department of Anaesthesia, Tampere University Hospital, Tampere, Finland

⁸Faculty of Medicine and Life Sciences, University of Tampere, Tampere,

⁹Department of Intensive Care, Copenhagen University Hospital Rigshospitalet, Copenhagen, Denmark

Anaesthesiologica Scandinavica

influence cerebrospinal fluid leakage from the dural defect that is created during the puncture.²

In May 2018, Rochwerg et al³ published a *BMJ* Rapid Recommendation clinical practice guideline on atraumatic (pencilpoint) vs conventional needles for lumbar puncture.

The Scandinavian Society of Anaesthesiology and Intensive Care Medicine (SSAI) Clinical Practice Committee (CPC) decided to appraise this guideline for possible endorsement to guide Scandinavian anaesthesiologists and intensivists in choice of atraumatic (pencil-point) vs conventional needles for lumbar puncture.

2 | METHODS

The SSAI CPC assessed the guideline using the Appraisal of Guidelines for REsearch and Evaluation (AGREE) II tool,⁴ as per the outlined process for endorsement of non-SSAI guidelines (Figure S1).

3 | RESULTS

3.1 | Quality appraisal (AGREE II)

Five SSAI CPC members completed the appraisal. One member co-authored the guideline and was excluded from the evaluation (Figure S1).

The individual domain totals were: (a) scope and purpose 86%; (b) stakeholder involvement 91%; (c) rigor of development 87%; (d) clarity of presentation 94%; (e) applicability 78%; (f) editorial independence 98%; and (g) overall assessment 93%.

The breakdown of the individual appraisers (de-identified) is available in the Supporting information.

4 | DISCUSSION

This clinical practice guideline on atraumatic (pencil-point) vs conventional needles for lumbar puncture achieved overall high ratings on all domains with acceptable agreement between the SSAI CPC appraisers.

5 | CONCLUSION

The SSAI CPC endorses the *BMJ* Rapid Recommendation clinical practice guideline on atraumatic (pencil-point) vs conventional needles for lumbar puncture, ³ including the strong recommendation for

the use of atraumatic needles for lumbar puncture in all patients regardless of age or indication.

ACKNOWLEDGEMENTS

None.

CONFLICT OF INTEREST

No Clinical Practice Committee member had direct conflicts of interest. MHM was a co-author of the guideline assessed and did not participate in the AGREE II assessment, as per the SSAI endorsement process. No other authors had indirect conflicts of interest.

ORCID

Marius Rehn https://orcid.org/0000-0001-9519-241X

Morten Hylander Møller https://orcid.org/0000-0002-6378-9673

REFERENCES

- Lavi R, Yarnitsky D, Rowe JM, Weissman A, Segal D, Avivi I. Standard vs atraumatic Whitacre needle for diagnostic lumbar puncture: a randomized trial. *Neurology*. 2006;67:1492-1494.
- Nath S, Koziarz A, Badhiwala JH, et al. Atraumatic versus conventional lumbar puncture needles: a systematic review and meta-analysis. Lancet. 2018:391:1197-1204.
- 3. Rochwerg B, Almenawer SA, Siemieniuk R, et al. Atraumatic (pencil-point) versus conventional needles for lumbar puncture: a clinical practice guideline. *BMJ*. 2018:361:k1920.
- Brouwers MC, Kho ME, Browman GP, et al. AGREE II: advancing guideline development, reporting and evaluation in health care. CMAJ. 2010;182:E839-E842.

SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

How to cite this article: Rehn M, Chew MS, Olkkola KT, Sverrison KÖ, Yli-Hankala A, Møller MH. Clinical practice guideline on atraumatic (pencil-point) vs conventional needles for lumbar puncture: Endorsement by the Scandinavian Society of Anaesthesiology and Intensive Care Medicine. *Acta Anaesthesiol Scand*. 2019;63:438–439. https://doi.org/10.1111/aas.13312