CHILDREN'S ONCOLOGY GROUP

The world's childhood cancer experts

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Atraumatic (pencil-point) versus conventional needles for lumbar puncture: a clinical practice guideline

The "Atraumatic (pencil-point) versus conventional needles for lumbar puncture: a clinical practice guideline" developed by the MAGIC group and The BMJ was endorsed by the COG Supportive Care Guideline Committee in May 2019.

The source guideline is published (Rochwerg B, Almenawer SA, Siemieniuk RAC, Vandvik PO, Agoritsas T, Lytvyn L, et al. BMJ 2018; 361:k1920.) and is available at:
https://www.bmj.com/content/361/bmj.k1920 https://www.bmj.com/content/361/bmj.k1920

The purpose of the source clinical practice guideline is to create a recommendation on the type of needle (atraumatic versus conventional) that should be used when performing a lumbar puncture. The recommendation from the endorsed clinical practice guideline is presented in the table below.

Recommendation on atraumatic (pencil-point) versus conventional needles for lumbar puncture

RECOMMENDATION	Strength of Recommendation and Quality of Evidence*
Which needles should be used for lumbar puncture for any indication?	
We recommend the use of atraumatic over conventional needles in lumbar puncture for any indication in all patients (adults and children).	Strong recommendation Moderate to high quality evidence

*see Appendix 1

Appendix 1: Systems for Classifying Recommendations and Evidence used by the Source Clinical Practice Guidelines

I. GRADE

Strength of Recommendations:

Strong Recommendation	When using GRADE, panels make strong recommendations when they are confident that the desirable effects of adherence to a recommendation outweigh the undesirable effects.
Weak Recommendation	Weak recommendations indicate that the desirable effects of adherence to a recommendation probably outweigh the undesirable effects, but the panel is less confident.

Strength of Recommendations Determinants:

Factor	Comment
Balance between desirable and undesirable effects	The larger the difference between the desirable and undesirable effects, the higher the likelihood that a strong recommendation is warranted. The narrower the gradient, the higher the likelihood that a weak recommendation is warranted
Quality of evidence	The higher the quality of evidence, the higher the likelihood that a strong recommendation is warranted
Values and preferences	The more values and preferences vary, or the greater the uncertainty in values and preferences, the higher the likelihood that a weak recommendation is warranted
Costs (resource allocation)	The higher the costs of an intervention—that is, the greater the resources consumed—the lower the likelihood that a strong recommendation is warranted

Quality of Evidence

High Quality	Further research is very unlikely to change our confidence in the estimate of effect
Moderate Quality	Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate
Low Quality	Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate
Very Low Quality	Any estimate of effect is very uncertain

Guyatt, G.H., et al., *GRADE: an emerging consensus on rating quality of evidence and strength of recommendations.* BMJ, 2008; 336: 924-926.
Guyatt, G.H., et al., *GRADE: going from evidence to recommendations.* BMJ, 2008; 336: 1049-1051.