To assess the acceptability of methods that increase trial inclusion in meta-analyses, and the level of evidence for skin-to-skin contact for procedural pain in infants" Disher et al (2016).

Abstract:

Aims: To assess the acceptability of methods that increase trial inclusion in meta-analyses, and the level of evidence for skin-to-skin contact for procedural pain in infants.

Background: The current Cochrane review of skin-to-skin contact for pain in newborns found it to be an effective intervention, but identified several methodological limitations.

Design: Meta-re-analysis.

Methods: Trial designs included randomized trials reporting a validated pain assessment tool as a primary outcome including term and preterm infants undergoing a tissue-breaking painful procedure. The search in the original review was conducted to January 2013. Scores of validated tools were scaled to the Premature Infant Pain Profile in a fixed-effect meta-re-analysis. The GRADE was used to assess quality of meta-analysed evidence.

Results: New analysis vs original found a mean difference: -3.11 in favour of skin-to-skin contact vs. -3.21 at 30s; and -2.71 vs. -1.85 at 60 seconds for heel lance. Based on cut-off scores for the Neonatal Infant Pain Scale, infants receiving skin-to-skin contact during IM injection were more likely to display low pain after injection; and during recovery .

Conclusion: Scaling scores to a single outcome can provide additional information in meta-analyses, simplifies interpretability of pooled scores, and can improve GRADE outcomes. Sensitivity analyses of scaled scores improve confidence in their validity. Risk of bias subgroups simplified the GRADE process, and confidence intervals for heterogeneity statistics assisted in interpretation of sensitivity analyses. Most infants receiving skin-to-skin contact can be expected to experience a meaningful reduction in pain during single

procedures.

Reference:

Disher, T., Benoit, B., Johnston, C. and Campbell-Yeo, M. (2016) Skin-to-skin contact for procedural pain in neonates: Acceptability of novel systematic review synthesis methods and GRADEing of the evidence. Journal of Advanced Nursing. October 12th. .

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