Reviewer's report

Title: A Randomized Controlled Trial of Sucrose and/or Pacifier as Analgesia for Infants Receiving Venipuncture in a Pediatric Emergency Department

Version: 1 Date: 1 March 2007

Reviewer: Sharyn Gibbins

Reviewer's report:

General

General: This is a randomized control trial examining the efficacy of sucrose for pain management for venipunctures in 87 infants 0-6 months of age. The authors provided rationale for the study and clearly outlined the ethical and methodological issues followed. The authors need to justify the use of a control group given the assumption that the procedure is painful. It is argued that sucrose, pacifier and the combination of the two are effective pain measures; however, one group of infants were denied any form of relief.

Background: Sufficient literature was cited and the authors provided rationale for the study.

Methods:

a) Sample size: size was sufficient, however it appears in table 1 that the mean age at study session was 63-68 days in three groups and 38 days in pacifier/placebo. Please clarify how this constitutes 0-6 months of age as it could be argued that the PIPP is a validated measure for these infants.

b) Outcomes: Description of the FLACC and scoring details were clearly provided. Cry outcome was clear, however, could the authors comment on the reliability of assessing heart rate every one minute. Variability in heart rate may be difficult to assess when measurements are only assessed in minutes. This may explain why no differences in heart rate were found.

c) Blinding: Every attempt was made to blind assessors from study group and biases were addressed in the discussion.

d) Procedure: More detail is required in this section. It is not clear if the infant was videotaped, the procedure standardized into phases or the outcome assessors were trained in performing FLACC scores. It is also not clear when exactly the scores were computed.

e) Analysis: Please clarify “The FLACC score in the 43 sucrose infants increased by an average of 3.2±3.6 which was not significantly different from the 3.6±3.3 average of the 41 placebo infants”. I think the authors should state that the scores were lower in the sucrose groups rather than talk about increases. Similar issue with pacifier effects.

f) Discussion: Nicely related findings to similar studies and identified future research questions.

Overall, the study is well done with implications for research and practice. Minor revisions are suggested.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions