

Outcomes to measure the effects of pharmacological interventions for pain management for women during labour and birth: A review of systematic reviews and randomised trials

Annie Tan¹, Alyce N Wilson¹, Donya Eghrari¹, Hannah Clark¹, Wai Chung Tse², Meghan Bohren³, Caroline Homer¹, and Joshua P Vogel⁴

¹Burnet Institute

²Monash University Faculty of Medicine Nursing and Health Sciences

³The University of Melbourne School of Population and Global Health

⁴Burnet Institute, University of Melbourne

April 4, 2021

Abstract

Background: Pharmacological pain management options can relieve women’s pain during labour and birth. Trials of these interventions have used a wide variety of outcomes, complicating meaningful comparisons of their effects. Consensus about key outcomes would facilitate the development of a core outcome set to assess the effectiveness of labour pain management. **Objective:** To identify all outcomes used in studies of pharmacological pain management interventions during labour and birth. **Design:** A review of systematic reviews and their included randomised controlled trials was undertaken. **Search Strategy:** Cochrane CENTRAL was searched to identify all Cochrane systematic reviews describing pharmacological pain management options for labour and birth. **Search terms** included “pain management”, “labour” and variants, with no limits on year of publication or language. **Selection Criteria:** Cochrane reviews and randomised controlled trials contained within these reviews were included, provided they compared a pharmacological intervention with other pain management options, placebo or no treatment. **Data Collection and Analysis:** All outcomes reported by reviews or trials were extracted and tabulated, with frequencies of individual outcomes reported. **Main Results:** Nine Cochrane reviews and 227 unique trials were included. In total, 148 unique outcomes were identified and categorised into maternal, fetal, neonatal, child, health service, provider’s perspective, or economic outcome domains. **Conclusions:** Outcomes of pharmacological pain management interventions during labour and birth vary widely between trials. The standardisation of trial outcomes would permit more meaningful comparison between studies. **Funding:** No external funding was provided. **Keywords:** Labour and birth; pain management; pharmacological interventions; systematic review

Hosted file

BJOG Publication_FINAL.pdf available at <https://authorea.com/users/405722/articles/516600-outcomes-to-measure-the-effects-of-pharmacological-interventions-for-pain-management-for-women-during-labour-and-birth-a-review-of-systematic-reviews-and-randomised-trials>

Hosted file

Table-Figure Caption List_BJOG_AT.pdf available at <https://authorea.com/users/405722/articles/516600-outcomes-to-measure-the-effects-of-pharmacological-interventions-for-pain-management-for-women-during-labour-and-birth-a-review-of-systematic-reviews-and-randomised-trials>

Hosted file

Table-Figure Caption List_BJOG_AT.pdf available at <https://authorea.com/users/405722/articles/516600-outcomes-to-measure-the-effects-of-pharmacological-interventions-for-pain-management-for-women-during-labour-and-birth-a-review-of-systematic-reviews-and-randomised-trials>