



We aimed to assess the effectiveness of remifentanyl used as intravenous patient-controlled analgesia for the pain of labour” Jelting et al (2017).

Summary:

We aimed to assess the effectiveness of remifentanyl used as intravenous patient-controlled analgesia for the pain of labour. We performed a systematic literature search in December 2015 (updated in December 2016). We included randomised, controlled and cluster-randomised trials of women in labour with planned vaginal delivery receiving patient-controlled remifentanyl compared principally with other parenteral and patient-controlled opioids, epidural analgesia and continuous remifentanyl infusion or placebo. The primary outcomes were patient satisfaction with pain relief and the occurrence of adverse events for mothers and newborns. We assessed risk of bias for each included study and applied the GRADE approach for the quality of evidence. We included total zero event trials, using a constant continuity correction of 0.01 and a random-effect meta-analysis.

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Twenty studies were included in the qualitative analysis; within these, 3713 participants were randomised and 3569 analysed. Most of our pre-specified outcomes were not studied in the

included trials. However, we found evidence that women using patient-controlled remifentanyl were more satisfied with pain relief than women receiving parenteral opioids (four trials, 216 patients, very low quality evidence) with a standardised mean difference (95%CI) of 2.11 (0.72–3.49), but were less satisfied than women receiving epidural analgesia (seven trials, 2135 patients, very low quality evidence), -0.22 (-0.40 to -0.04). Data on adverse events were sparse. However, the relative risk (95%CI) for maternal respiratory depression for patient-controlled remifentanyl compared with epidural analgesia (three trials, 687 patients, low-quality evidence) was 0.91 (0.51–1.62). Compared with continuous intravenous infusion of remifentanyl (two trials, 135 patients, low-quality evidence) no conclusion could be reached as all study arms showed zero events. The relative risk (95%CI) of Apgar scores less than 7 at 5 min after birth compared with epidural analgesia (five trials, 1322 participants, low-quality evidence) was 1.26 (0.62–2.57).

Reference:

Jelting, Y., Weibel, S., Afshari, A., Pace, N.L., Jokinen, J., Artmann, T., Eberhart, L.H.J. and Kranke, P. (2017) Patient-controlled analgesia with remifentanyl vs. alternative parenteral methods for pain management in labour: a Cochrane systematic review. *Anaesthesia*. July 11th. .

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