Evidence regarding the use of intravenous paracetamol during labour

No:	Journal reference	Summary of findings
1	**Intravenous infusion of paracetamol versus intravenous pethidine as an intrapartum analgesic in the first stage of labor** *International Journal of Gynecology & Obstetrics / Volume 118, Issue 1* ***12 April 2012*** *https://doi.org/10.1016/j.ijgo.2012.01.025*	**Conclusion** The effectiveness of intravenous paracetamol was comparable to that of intravenous pethidine, but paracetamol had fewer maternal adverse effects.
2	**Intravenous infusion of paracetamol for intrapartum analgesia** **Journal of Obstetrics and Gynaecology Research / Volume 40, Issue 11, 11 August 2014** **https://doi.org/10.1111/jog.12465**	**Results** Compared to controls, i.v. infusion of paracetamol was associated with significantly lower VAS score 15 and 30 min after the start of medication; also, there was a significantly lower incidence of need for rescue medication (8/57 [14%] vs 49/59 [83.1%], P < 0.001) at 60 min after the start of medication. There were no recorded maternal adverse effects in either group. There were no differences in occurrence of intrapartum fetal distress or neonatal Apgar scores between both groups. **Conclusion** Paracetamol appears to be a safe and effective medicine that can be used during the intrapartum period.
3	**Intravenous paracetamol versus intramuscular pethidine in relief of labour pain in primigravid women** **Niger Med J. 2014 Jan-Feb; 55(1): 54–57.** ***doi: [10.4103/0300-1652.128167: 10.4103/0300-1652.128167]*** ***https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4071664/***	**Conclusion**: It is concluded that intravenous paracetamol is more effective than intramuscular pethidine to relief labour pain in normal vaginal delivery.

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4	**Comparison of analgesic efficacy of paracetamol and tramadol for pain relief in active labor** **Journal of Clinical Anesthesia (2015) 27, 159–163**	**Results**: Both the groups showed comparable VAS scores at all times of observation. Lower mean VAS scores were reported in both the groups till 120 minutes only. The duration of first stage of labor was shorter in group P (248.00 ± 98.171 vs 340.63 ± 111.592 minutes; P = .003). The duration of second stage of labor was comparable between the 2 groups. Higher incidence of maternal side effects such as nausea/vomiting and sedation was associated with the use of tramadol. Neonatal outcome was comparable. **Conclusion**: Intravenous paracetamol provides comparable analgesia as intramuscular tramadol during active labor.
5	**Intravenous paracetamol infusion versus intramuscular tramadol as an intrapartum labor analgesic** **International Journal of Reproduction, Contraception, Obstetrics and Gynecology** ***Mohan H et al. Int J Reprod Contracept Obstet Gynecol. 2015 Dec;4(6):1726-1729***	**Conclusions:** Intravenous paracetamol is more effective labor analgesic with fewer maternal adverse effects and shortens labor as compared to intramuscular tramadol.
6	**Efficacy of Intravenous Infusion of Acetaminophen for Intrapartum Analgesia** *Journal of Clinical and Diagnostic Research. 2016 Aug, Vol-10(8): QC18-QC21*	**Conclusion:** Intravenous acetaminophen is an efficacious non-opioid drug for relieving labour pain without any significant maternal and foetal adverse effects.
7	**I.V. paracetamol as an adjunct to patient-controlled epidural analgesia with levobupivacaine and fentanyl in labour: a randomized controlled study.**	**Conclusions:** Use of 1000 mg i.v. paracetamol decreases

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	BJA: British Journal of Anaesthesia, Volume 117, Issue 5, November 2016, Pages 617–622, https://doi.org/10.1093/bja/aew311	the mean hourly drug consumption through epidural route. Thus i.v. paracetamol is a safe and effective adjunct to PCEA in labour analgesia.
8	What is the evidence to support the use of IV paracetamol for the short-term treatment of moderate to severe pain in adults? Prepared by UK Medicines Information (UKMi) pharmacists for NHS healthcare professionals https://www.sps.nhs.uk/wp-content/uploads/2017/04/UKMi_QA_IV-paracetamol_Dec_2016.docx	There is a large volume of data to support the use of intravenous paracetamol for the short-term treatment of moderate to severe pain in adults. IV paracetamol has become widely used in clinical practice and incorporated into clinical guidelines including some NICE guidelines.
9	**A Randomized controlled trial of intramuscular pentazocine compared to intravenous paracetamol for pain relief in labor at Aminu Kano Teaching Hospital, Kano** *https://www.ajol.info/index.php/tjog/article/view/162499* ***Tropical Journal of Obstetrics and Gynaecology Trop J Obstet Gynaecol 2017;34:116-123***	The analgesic efficacy of IV paracetamol was similar to that of IM pentazocine in labor, with similar levels of maternal satisfaction with pain relief, but IV paracetamol was associated with significantly lower rates of adverse effects
10	**Comparison of Analgesic Efficacy of Paracetamol and Tramadol for Pain Relief in Active Labor** **Obstetrics & Gynecology: May 2017 - Volume 129 - Issue 5 - p S159-S160** **doi: 10.1097/01.AOG.0000514775.91402.3c** **Monday, May 8, 2017**	**CONCLUSION:** Due to difficulty in administering epidural analgesia to all parturients, administration of paracetamol and tramadol infusion for analgesia is simple and less invasive alternative. In the present study both paracetamol and tramadol were equally effective for labor analgesia but paracetamol has emerged as safe alternative as compared to tramadol due to low incidence of side effects.