

# Jordan University of Science and Technology

## Epidural analgesia and its effects on maternal and neonatal outcomes: a retrospective comparable study in Northern Jordan

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**Abstract:** Background. Epidural analgesia (EA) is well-known method for reducing pain during labour. However, negative outcomes may be associated with its use. Aim. To assess the rate of EA as a pain-control method during labour in a major university hospital in the north of Jordan, and to compare the outcomes for women who had EA with women who had no EA during their labour and their babies. Method. A comparative retrospective study used birth medical records from 2013 to 2014 at the largest hospital in northern Jordan to obtain the birth data for the study. A specifically designed data-abstraction form was used to collect demographics, social data and maternal and neonatal outcomes. A convenience sample of 414 birth medical records was available for the study. The obtained sample was divided into two groups: parturient women who had epidural analgesia (EA) and women who had no epidural analgesia or used other method for labour analgesia, to compare maternal and neonatal outcomes. Ethical approval was granted from the human subject committee at Jordan University of Science and Technology. Results. The total sample consisted of 414 birth medical records; more than half of the sample 52.2% (n=216) nulliparous women used epidural analgesia during the study period. The group of women who had EA had a significantly higher rate of instrumental birth, prolonged second stage of labour, and higher rates of maternal complications (fever, hypotension) compared with the group of women who had no EA. Conclusion and implications. EA should be used with caution and when required as it appears to hold risks for the health of the mothers and their babies. Therefore, women need to be informed about the possible risks of EA and should have appropriate counselling. Further research to assess the long-term effects of EA on both mothers and their babies needs to be undertaken in both high- and low-income countries. Keywords. Epidural analgesia, birth outcome, labour, birth, Jordan, evidence-base