

**UNIVERSITI TEKNOLOGI MARA**

**EFFECT OF  
EPIDURAL ANALGESIA  
ON LABOUR AND NEONATAL  
OUTCOME:  
A COMPARITIVE STUDY**

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**Project submitted in fulfilment of the requirements  
for the requirement for the  
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## AUTHOR'S DECLARATION

I declare that the work in this dissertation was carried out in accordance with regulations of University Teknologi MARA. It is original and is the result of my own work unless otherwise indicated or acknowledged as referenced work. This topic has not been submitted to any other academic institution or non-academic institution for any other degree or qualification.

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## ABSTRACT

**Background:** Pain relief in labour is an important issue in the management of pregnant women in childbirth. Epidural analgesia is currently the most effective method for pharmacological intra-partum pain relief and most widely applied during childbirth. Various adverse effects of Epidural Analgesia have been described and remains controversial among the healthcare professionals involved.

**Aims of the study:** To evaluate the effects of epidural analgesia on Labor Progress and Neonatal Outcome at Hospital Putrajaya.

**Materials and method:** Retrospective Cohort Study using secondary data collected through Electronic Medical Record (THIS; Total Hospital Information System) on all delivery cases in Hospital Putrajaya from 1<sup>st</sup> January to 31<sup>st</sup> December 2016 and entered into Case Report Form (CRF) that was developed through previous study and validated by the Obstetrician and Anaesthesiology in Hospital Putrajaya

**Result:** A total of 906 respondents was retrospectively investigated in a cohort of 8000 delivery in a government hospital; and was divided into two groups of 453 respondents with epidural analgesia and non-epidural analgesia.

These result showed that epidural mothers had better outcome of delivery; mode of delivery ( $t$ : -8.05;  $p$ -value: 0.01), perineal tear ( $\chi^2$ : 69.46;  $p$ -value: 0.01), duration of labour ( $t$ : -12.58;  $p$ -value: 0.01), the incidence of Post-Partum Haemorrhage ( $\chi^2$ : 22.45;  $p$ -value: 0.01) and the estimated blood loss for mother with epidural analgesia had less blood ( $U$ : 85057.50;  $p$ -value: 0.01) compared to the other group.

The neonates whose mothers received epidural analgesia were significantly had better outcome; Apgar score values at 5 minutes ( $\chi^2$ : 13.89;  $p$ -value: 0.01), developed Transient Tachypnea of the New-born ( $\chi^2$ : 8.16;  $p$ -value: 0.01) and admitted to Neonatal Intensive Care Unit ( $\chi^2$ : 5.61;  $p$ -value: 0.02) compared to the neonate whose mothers with other analgesia method / no analgesia (non-epidural group).

**Conclusion and recommendation:** Overall, it can be concluded that the effects of epidural analgesia are good to the maternal and neonatal. However, these should be a proper guideline or care for mothers with epidural analgesia to encourage a better outcome and satisfaction amongst mothers who use epidural analgesia as pain relief during labour.

**KEYWORDS:** Effect, Epidural Analgesia, on labour, Neonatal, Outcomes, A comparative study