

# Visual aid posters on fetal heart rate monitoring: A training tool for improving patient safety and satisfaction in KK Women's and Children's Hospital (KKH), Singapore

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## ABSTRACT

**Objectives:** Cardiotocography (CTG) for continuous intrapartum fetal monitoring is a standard of care in Singapore. CTG misinterpretation remains a persistent problem. Failure to recognise pathological traces and delayed intervention often lead to adverse neonatal outcomes and potential medicolegal implications. CTGs should be considered together with the background and evolving risk factors in patient management. In KKH, we decided to complement our existing CTG training modalities with visual aids (posters). These allow healthcare professionals to refer to and reflect on their clinical decisions. **Methods:** We formed a committee and identified commonly misinterpreted CTG traces. We brainstormed salient learning points. We believe CTG pattern recognition is useful in enhancing CTG learning. We created 4 new CTG posters in 2022; 1) "Bad CTGs – The 'Dodgy' Dozen" – 12 dangerous CTG traces that you ought to know, 2) Pitfalls and stumbling blocks in CTG interpretation, 3) Abnormal CTGs, and 4) Special Situations – Second Stage CTG and CTG for Twins. The posters were displayed in clinical areas for quick reference. **Results:** An online survey on the usefulness of CTG posters received positive feedback. There was a high acceptance rate amongst end-users. **Conclusion:** KKH is the largest training hospital for Obstetrics and Gynaecology in Singapore. Through feedback and identification of gaps in existing CTG training, visual aid posters were created. The posters consist of CTG traces with text explanations. This has been superior to the use of text alone. Visual aids make the presentation of complicated medical information easier to understand, hence improving retention of information.

# A retrospective study on pre-eclampsia in Hospital Universiti Sains Malaysia, Kelantan

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## ABSTRACT

**Introduction:** Our study aimed to determine the prevalence of pre-eclampsia, the associated patient's socio-demographic and clinical characteristics, and the maternal and perinatal outcomes. **Methods:** A descriptive retrospective study was conducted over a ten-year period from 2006 to 2016. The following data were recorded and analysed: patients' age, parity, body mass index (BMI), medical history, gestational age, clinical symptoms, laboratory findings, mode of delivery, and maternal and fetal complications. **Results:** A total of 283 cases were analysed. The prevalence of pre-eclampsia was 1.4%. The mean age was 30.4 years. The majority of patients with pre-eclampsia (98.2%) had undergone antenatal booking, with 59% being multigravida and 41% being primigravida. The mean BMI was 30 kg/m<sup>2</sup> while the mean haemoglobin was 10.2 g/dl. Elevated levels of serum uric acid were observed in 64.7% of women, while increased alanine transaminase (ALT) and aspartate transaminase (AST) levels were recorded in 94% and 53% of patients respectively. Perinatal complications were reported in 23% of patients, with the commonest being postpartum haemorrhage (PPH) (9.5%). Maternal complications were significantly associated with platelet levels below 150 x 10<sup>9</sup> (p=0.001). The mean fetal weight was 2.53 kg, and 37% of infants required admission to the neonatal intensive care unit (NICU). Patients with gestational diabetes mellitus (GDM) had significantly higher odds of delivering a low-birth-weight infant (p<0.001). **Conclusion:** The prevalence of pre-eclampsia observed in this study is notably lower compared to findings reported in other studies, although the clinical characteristics were largely similar.