A CLINICAL AUDIT ON VENOUS THROMBOEMBOLISM PROPHYLAXIS AFTER CAESAREAN SECTIONS AT A PERTH METROPOLITAN HOSPITAL

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ABSTRACT

Introduction: Venous Thromboembolism (VTE) accounts for 1.1 deaths per 100 000 obstetric deliveries, or 10% of all maternal deaths (1). As such, a method for prophylaxis in the puerperium has been established for those at an identified high risk. VTE prophylaxis can be achieved using both pharmacological and non-pharmacological methods. The National Institute for Health and Care Excellence estimates that low-molecular-weight heparin (LMWH) reduces VTE risk in medical and surgical patients by 60% and 70% respectively (2) and consensus states that LMWH is safe and easy to use postpartum.

Aim: Prevent women from having preventable pregnancy associated VTE events.

Objective: In patients undergoing caesarean section at a Perth Metropolitan Hospital, what proportion has received VTE prophylaxis in accordance with established standards of practice outlined by the KEMH Guidelines (3)?

Methodology: Approval for the audit was received from GEKO (Reference 12068). 30 cases were identified according to the hospital ICD Code 082 as having undergone caesarean between the 1st of November 2015 and the 31st of January 2016 at a Perth Metropolitan Hospital. An audit data collection tool was used to collect data from each patient using an excel spreadsheet and analyses using simple statistics.

Outcomes: I audited 12% of the caesarean births for the time period. The age of the women giving birth ranged from 21-39 with the mean and median both being 30. The three most important factors in determine the VTE prophylaxis a patient receives is: type of caesarean (elective or emergency), time (during or outside normal work hours) and patient risk factors (low, intermediate or high risk). The primary outcome was that in 53% of the caesarean sections audited, VTE prophylaxis was administered according to the standard (2). The adherence rates were: 75% for elective caesarean sections, 50% for emergency caesarean, 73% for caesarean sections in normal hours (0800-1600) and 33% for caesarean sections outside normal hours (1600-0800). This audit has indicated an improvement in compliance with the standard for VTE prophylaxis after caesarean section from 24% in early 2015 to 53% in late 2015/early 2016.

References

1. James, A. (2009) Venous Thromboembolism: Mechanisms, Treatment, and Public Awareness. Arteriosclerosis, Thrombosis, and Vascular Biology, 29, 326-331. doi:.1161/ATVBAHA.109.184127

- 2. Chronic, C. U. (2010). Venous Thromboembolism: Reducing the Risk of Venous Thromboembolism (Deep Vein Thrombosis and Pulmonary Embolism) in Patients Admitted to Hospital. PMID: 23346611
- 3. King Edward Memorial Hospital. (2015). *Clinical Guidelines: Thromboprophylaxis after caesarean birth*. Retrieved from <u>www.kemh.health.wa.gov.au/development/manuals/O&G_guidelines</u>