

Thromboembolism in Pregnancy: Assessing and Managing the Risk

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Introduction :

Thromboembolism is the leading cause of direct maternal death in Australia(1). Women experience a 4-6-fold increase in venous thromboembolic events during pregnancy, which further increases in the postpartum period(2). Western Sydney Local Health District uses the Clinical Excellence Commission (CEC) NSW guidelines to stratify risk into low, intermediate and high, dictating the need for venous thromboembolism (VTE) prophylaxis in the form of enoxaparin sodium. This audit looked at assessment and adherence rates at a Western Sydney Hospital before and after implementation of a multidisciplinary education and engagement program.

Methods:

VTE risk and management was assessed in accordance with CEC guidelines. A retrospective medical record analysis in a single hospital of all births in the months of January 2020 and July 2020, before and after the education program.

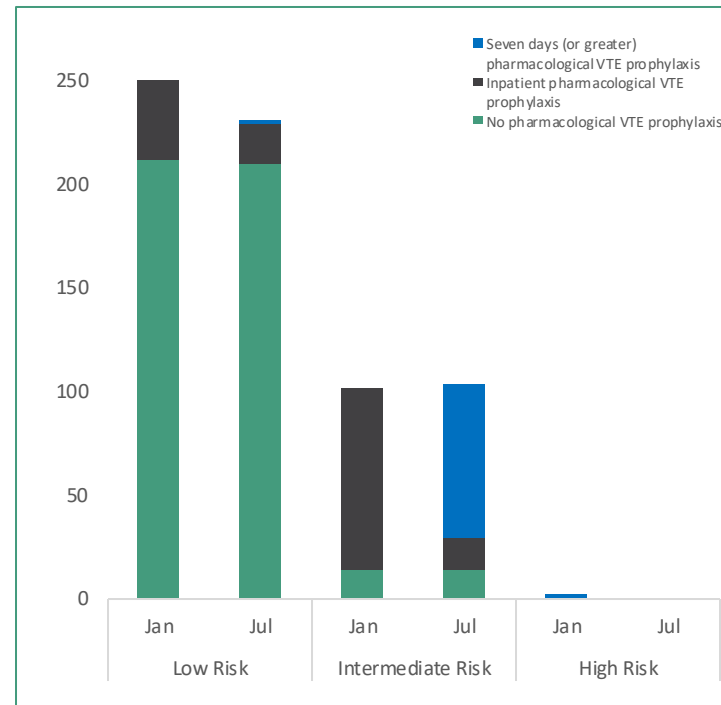


Figure one: Post-partum pharmacological VTE prophylaxis for January and July 2020

Results:

In January, 356 women delivered. Of those, 78% were assessed at booking (approximately 20 weeks of pregnant) for VTE risk. Postpartum <1% were formally assessed for VTE risk. As a result, 86% of those in intermediate risk group (88 of 102 women) did not receive adequate VTE prophylaxis, the remaining 14% received no pharmacological prophylaxis. Two women were high risk, and received tailored care with hematological input. In July, 333 women delivered, of which 87% had a risk assessment at booking in. Seventy percent had a formal postpartum assessment. July saw an improvement of 76% of women with an intermediate risk receiving adequate postpartum prophylaxis. Eleven percent received inadequate postpartum pharmacological prophylaxis, and 13% receiving none. There were no high risk women who delivered in July. Of those who had a postpartum VTE risk assessment, 193 postpartum assessment was adhered to (86%).

Conclusions:

A multidisciplinary education campaign can help improve adherence rates to protocol and ensure patient safety, however barriers to delivery need to be addressed as part of an ongoing review into less than expected adherence.

1: Australian Institute of Health and Welfare. Maternal deaths in Australia [Internet]. Canberra: Australian Institute of Health and Welfare, 2020

2: Heit JA, Kobbervig CE, James AH, et al. Trends in the incidence of venous thromboembolism during pregnancy or postpartum: a 30-year population-based study. *Annals of Intern Medicine*. 2005 Nov 15;143(10):697-706

3: New South Wales Clinical Excellence Commission, Maternal Venous Thromboembolism (VTE) Risk Assessment Tool, Clinical Excellence Commission, 2020