Choose your guideline wisely: A comparison of guidelines for the prevention of pregnancy associated venous thromboembolism

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Introduction/background/rationale

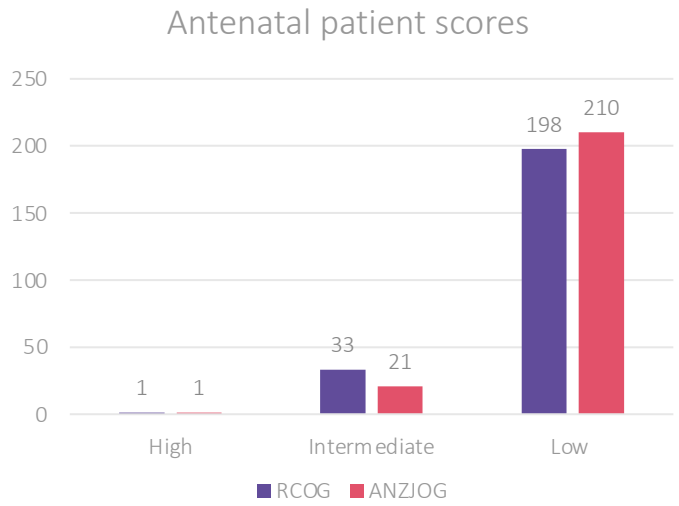
- Venous thromboembolism (VTE) is the leading cause of direct maternal deaths in Australia[1]
- The risk of VTE increases in pregnancy and the postpartum period by between four to ten-fold compared to the non-pregnant state.[2,4]
- VTE can be prevented by prescribing thromboprophylaxis, specifically low molecular weight heparin(LMWH).[3]
- There is a lack of evidence available to guide prescription of thromboprophylaxis leading to a large discrepancy between guidelines. [2,4]
- This study compares the Royal College of Obstetricians and Gynaecologists; Green Top Guidelines (RCOG guideline)[5] and the Australian and New Zealand Journal of Obstetrics and Gynaecology's "Recommendations for the prevention of pregnancy-associated venous thromboembolism" (ANZJOG guideline).[4]

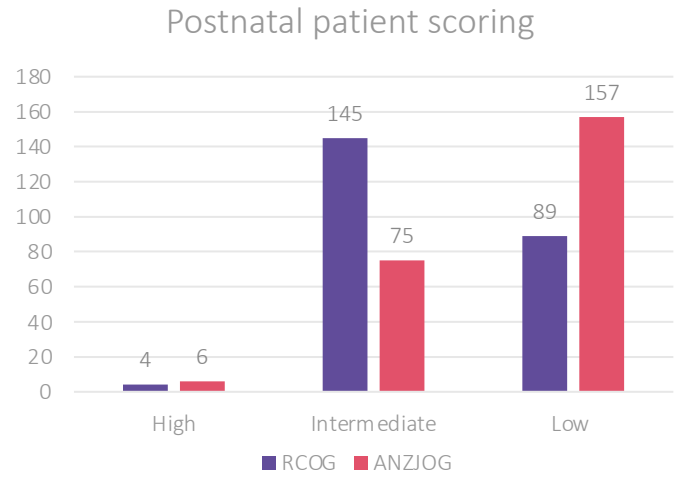
Methods

- A Retrospective comparison of application of guidelines to a regional obstetric cohort
- The cohorts were collected from booking visits and deliveries in a two month period
- The patients were assessed using each guideline and scored as "low, intermediate or high risk"

Results

- 231 antenatal patients and 238 postnatal patients included.





Discussion

- Antenatal: Both guidelines recommend LMWH for the entire pregnancy for high risk patients. Intermediate patients would be referred to Haematology and would likely receive LMWH from first or third trimester.[4,5]
- Postnatal: High risk patients would be prescribed 6 weeks of LMWH by both guidelines. Intermediate patients would receive at least 10 days of LMWH according to the RCOG guideline[5] and at least 5 days or until fully mobile according to the ANZJOG guideline[4].
- The guidelines are comparable for the assessment of "high risk" patients both antenatally and postnatally reflecting consensus around the highest risk factors for VTE.
- The greatest difference between guidelines occur in the intermediate postnatal patient group. Use of the RCOG guideline leads to twice as many patients being scored intermediate risk.
- Practical implications: 145 intermediate patients would receive LMWH for 10 days compared 75 patients for 5 days. The PBS listing for 10 enoxaparin syringes is $92.82 translating to a difference in cost of $9978 for a 2 month period, or $59 868 per annum.
- Useability: both researchers reported the RCOG Guideline was significantly easier to use than the ANZJOG guideline and agreed that it would be more user friendly in a clinical environment.

Conclusion

- Guidelines for prescription of VTE thromboprophylaxis are similar for those who are high risk for VTE but differ significantly in their classification of intermediate risk.

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