A Retrospective Audit of Venous Thromboembolism (VTE) Prophylaxis Prescribing Post-Caesarean Section

Helender Singh¹, Judy Lin¹, Kate Streatfeild¹, Yee-En Ou²

¹ Pharmacy Department, Logan-Beaudesert Hospital, Queensland, Australia ² The University of Queensland, Queensland, Australia

Aim

- Evaluate concordance of VTE prophylaxis prescribing following caesarean section with State-wide and Local guidelines.
- Ascertain the readmission rate with embolic complications in this patient population.

Methods

- Retrospective chart review
 - o Weight
 - o Risk Factors for VTE
 - o Prophylaxis prescribed (chemical +/- mechanical)
 - o Representation(s) within 90 days

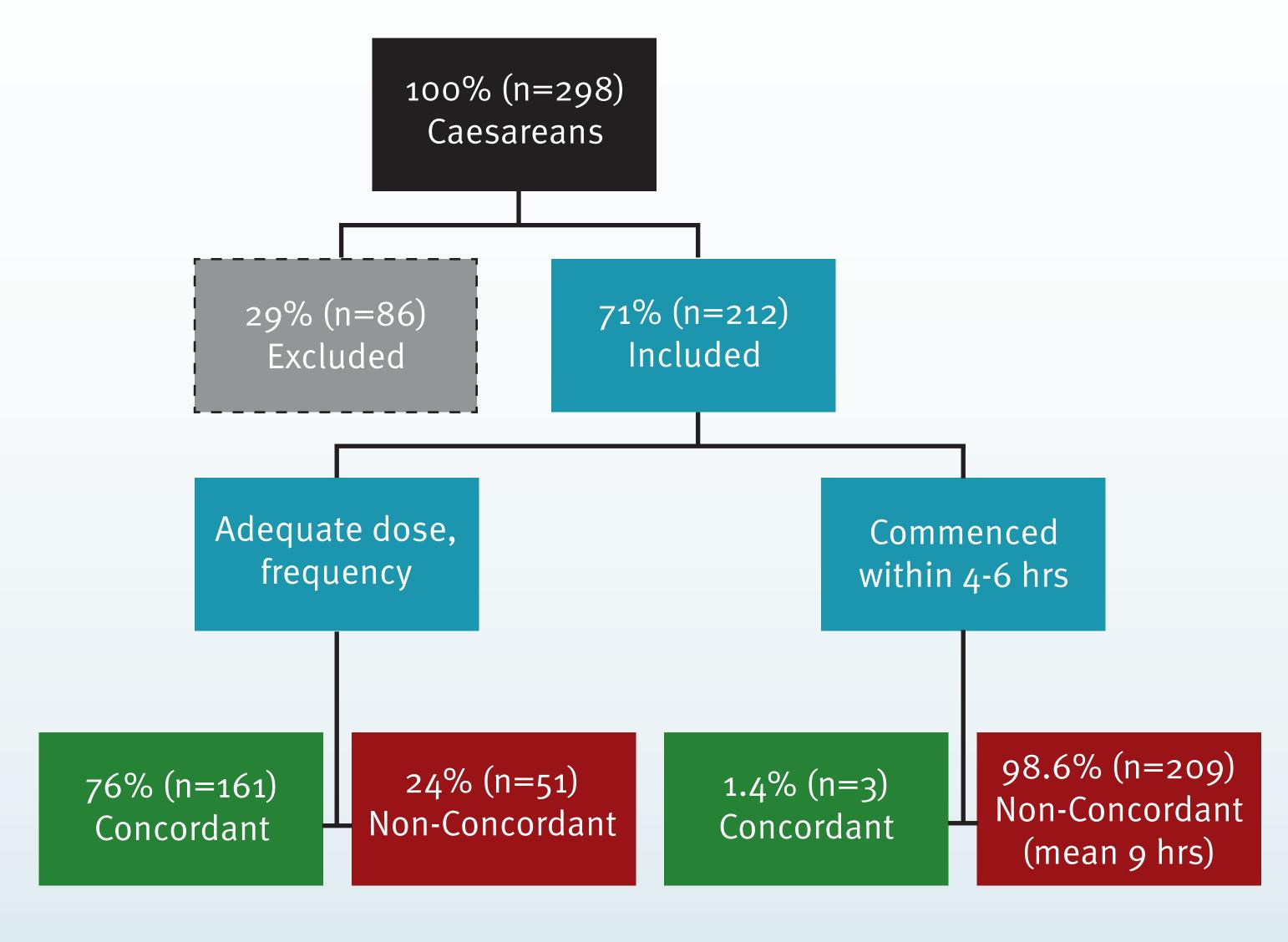
Inclusion Criteria

- ✓ Admitted between March June 2017
- Birth via caesarean section

Exclusion Criteria

- ➤ Non-caesarean birth
- Incomplete medical record (e.g. no weight)

Results



- Majority of non-concordance with recommended dose/frequency amongst women at extremes of bodyweight (underweight and obese)
- 90-day all-cause readmission rate 17% (n = 51 / 298)
- 90-day VTE readmission rate 0.3% (n = 1/298)

Take home messages

- Majority of women undergoing caesarean section at our site were prescribed an appropriate agent and dose for VTE prophylaxis.
- Reducing time to first-dose of chemical prophylaxis and optimizing dosage in women with extremes of bodyweight were two key areas identified for improvement in our facility.

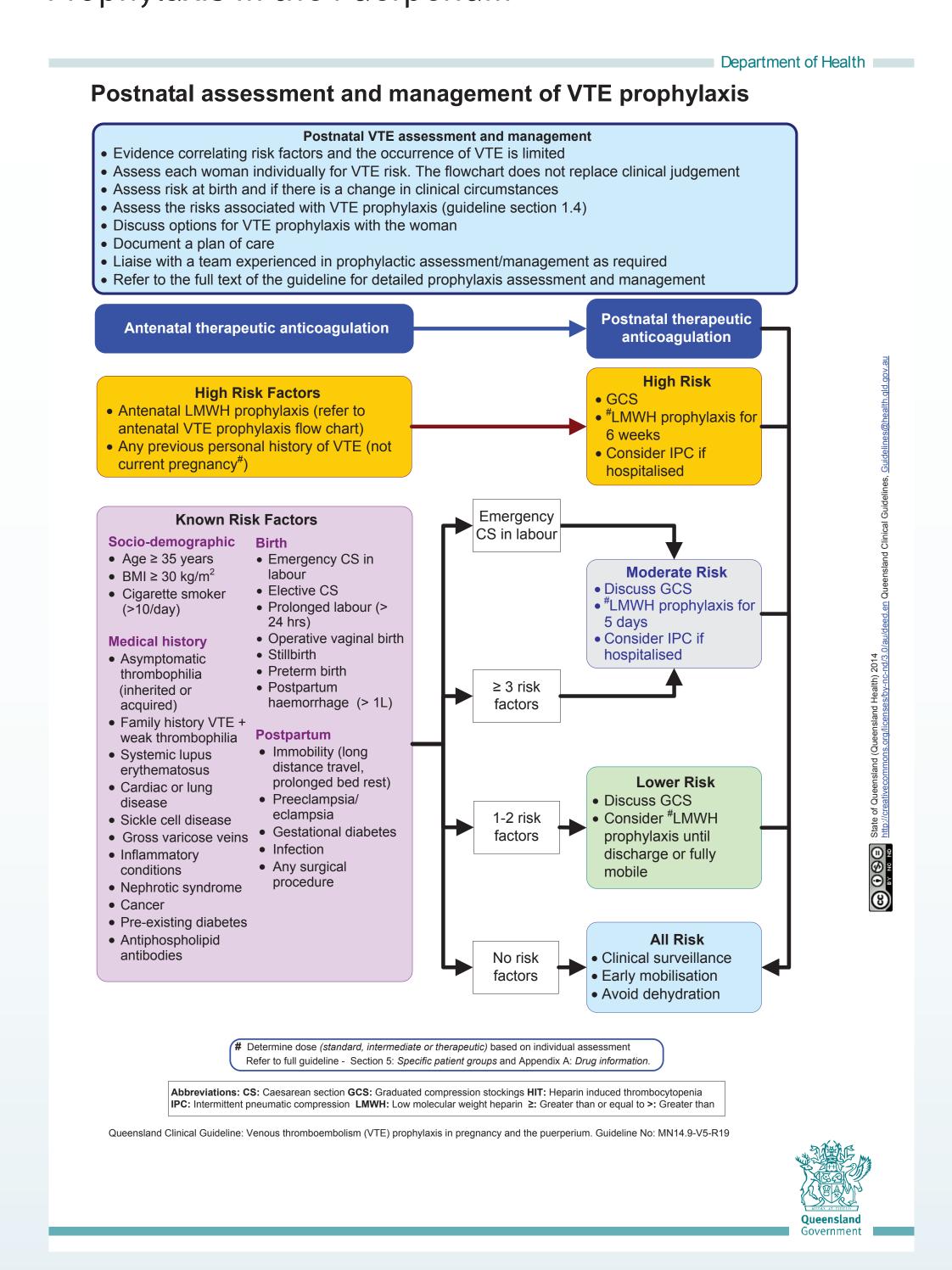
References

Queensland Clinical Guidelines. Venous thromboembolism (VTE) prophylaxis in pregnancy and the puerperium. Queensland: State of Queensland (Queensland Health); 2014 Feb. 25p. Document No: MN14.9-V5-R19

A Weighty Issue

- Lack of established guidance regarding weight to LMWH in post-partum period
 - o Pre-pregnancy? How to account for weight gain (in addition to infant)?
 - o Post-partum? How soon? How to account for blood loss, crystalliod?
 - o Admission Weight? How to account for infant size?
- Women seen in our service generally have high BMI pre-conception

Figure 1: Current Queensland Clinical Guideline for VTE Prophylaxis in the Puerperium



Case

- 32-year-old woman, G2P1
- Risk factors
 - o Emergency caesarean fetal bradycardia
 - o Family history of VTE
 - o Suspected infection post-operatively
- Additionally
 - o Prolonged operating time
 - o Requirement for surgical drain
- Management
 - o Mechanical prophylaxis immediately post-op
 - o Chemical prophylaxis delayed 15 hrs due to drain
 - o Chemical prophylaxis provided until discharge (48 hrs)
- Follow-up
 - o Representation 13 days post-emergency caesarean
 - o Extensive DVT identified in iliac extending to femoral vein
 - o Managed with TEDs and weight adjusted LMWH for 6 months
 - o Negative thrombophilia screen



