

Assessing the Prescription and Administration of Enoxaparin in Caesarean Births

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Introduction

Pregnancy increases the risk of venous thromboembolism [1]. Local guidelines recommend weight-based prophylactic enoxaparin, administered at least four hours after spinal insertion or epidural catheter removal [2]. This audit assessed the accuracy of low-molecular-weight heparin prescribing and administration in women undergoing caesarean birth at a tertiary referral obstetric centre.

Methods

Caldicott approval was obtained. Data for all patients who underwent a caesarean birth were analysed over the course of one week. Patient demographics, nature of procedure, and type of anaesthetic were recorded. Time of spinal insertion or removal of epidural catheter was noted and compared with the time of enoxaparin prescription and administration. The dose of enoxaparin was also recorded and compared with the patients' weight.

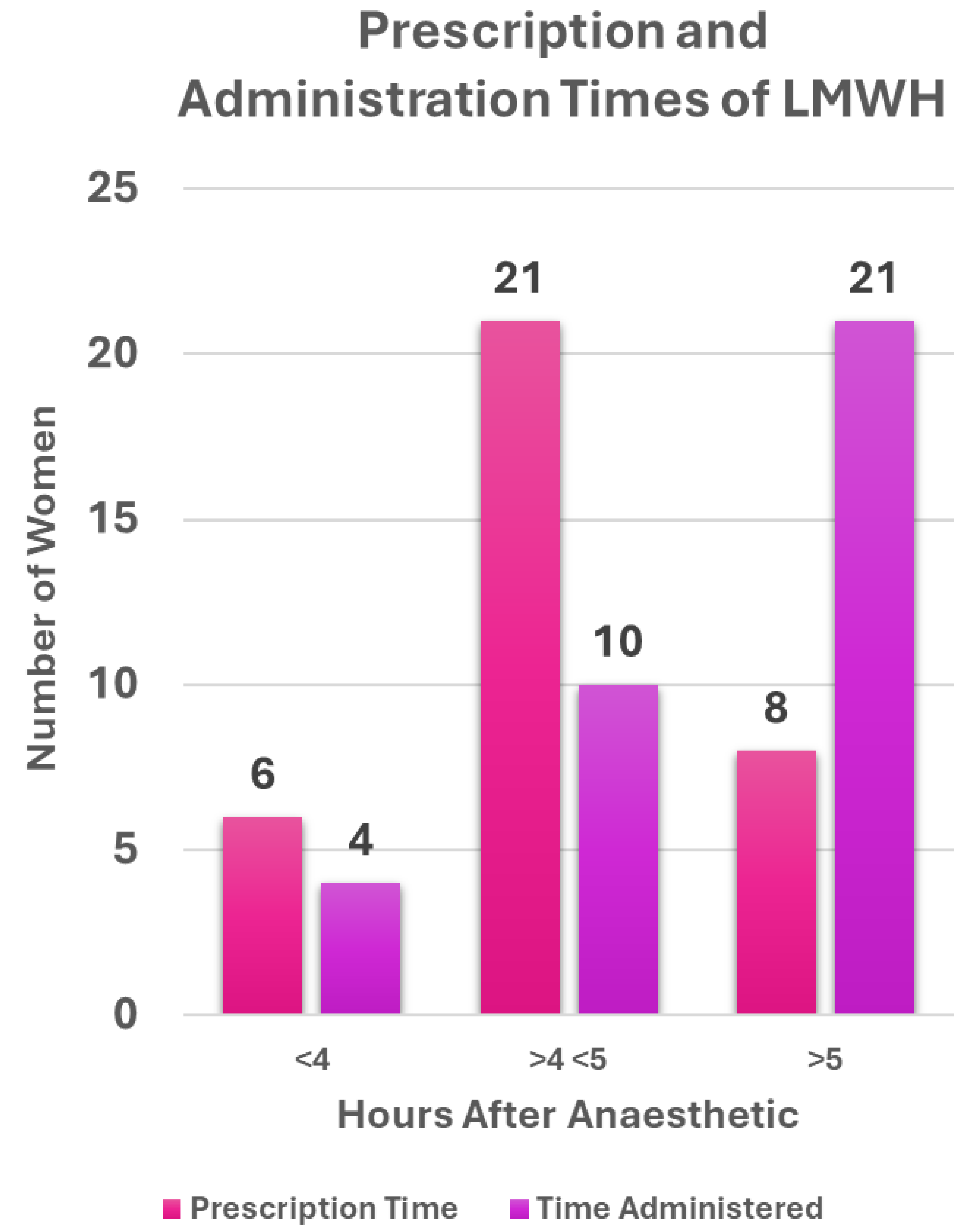


Figure 1 – Prescription and administration time of LMWH

Results

Data for 38 patients who underwent a caesarean birth were analysed. Sixteen (42.1%) were unplanned and 22 (57.9%) were planned procedures. Thirty-four (89.4%) received spinal anaesthesia, three (7.9%) epidural top-up, and one (2.6%) general anaesthesia. Thirty-six patients (94.7%) had an accurate weight recorded, and 35 (92.1%) received the correct LMWH dose. Data on time of anaesthetic, prescribed LMWH time, and administration time were recorded for 35 (92.1%) women. Figure 1 shows prescription and administration time of LMWH, relative to spinal anaesthesia or epidural catheter removal. The earliest LMWH administration was two hours 47 minutes post-spinal insertion.

Discussion

Although prescribed doses of enoxaparin were mainly accurate, only 60% were prescribed within the recommended four-hour timeframe, and only 29% of women received their dose of enoxaparin within this period. A new post-operative medication bundle incorporating standardised timings for enoxaparin is being introduced to improve compliance.

References

1. Royal College of Obstetricians and Gynaecologists. Reducing the Risk of Thrombosis and Embolism during Pregnancy and the Puerperium (Green-top Guideline No. 37a). April 2015. Available at: RCOG Green-top Guideline No. 37a.
2. NHS Greater Glasgow & Clyde. Thromboprophylaxis during pregnancy and the puerperium. Available at: <https://www.rightdecisions.scot.nhs.uk/ggc-clinical-guidelines/maternity/antenatal-general/thromboprophylaxis-during-pregnancy-and-the-puerperium-580/>