

# Anticoagulation Prescribing and Documentation in a Tertiary Emergency and Trauma Centre – The clot thickens

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## Objective

To assess the prescribing and documentation of therapeutic anticoagulation in the Emergency and Trauma Centre (ETC) at the Royal Brisbane and Women's Hospital (RBWH).

## Background

Anticoagulants are classified as high-risk medications by the Australian Commission on Safety and Quality in Health Care<sup>1</sup> and they are prescribed widely in most clinical settings including in the ETC. Anticoagulants have a narrow therapeutic index, and supra or subtherapeutic levels can result in significant adverse patient outcomes<sup>2</sup>. Therefore accurate prescribing and documentation of therapy should be considered essential when commencing anticoagulation.

## Method

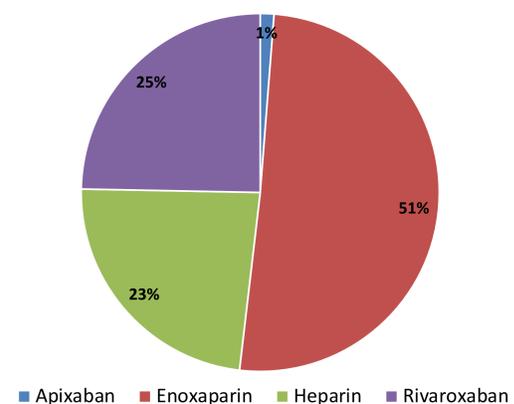
A retrospective chart audit was performed from the period of 01/04/2018 to 06/06/2018, using data from an automated medication dispensing system (pyxis™) to determine patients that received doses of therapeutic anticoagulation while in the ETC.

## Results

A total of 115 patients were administered therapeutic anticoagulation throughout the audit period.

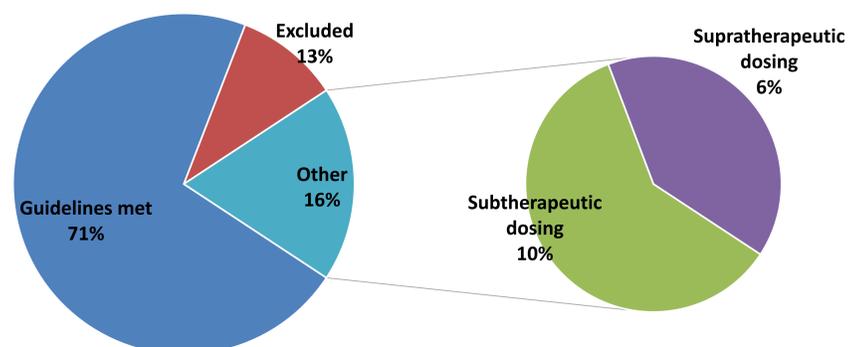
The Emergency Department Information System (EDIS) diagnoses for the patients that were administered anticoagulation while in the ETC were reviewed, and the most common indications for therapeutic anticoagulation were considered cardiac and vascular indications. Some cases such as smoke inhalation and oedema were categorised as 'other'.

Types of Anticoagulants Prescribed by Emergency Physicians (n=81)

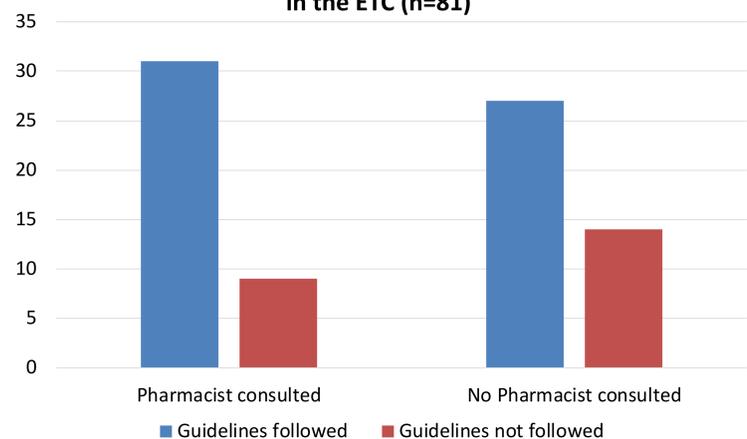


Of the anticoagulation initiated by emergency physicians, 71% of orders were deemed to be in line with current hospital guidelines.

Initiation of Anticoagulation in the ETC (n=62)



Effect of Pharmacist involvement on Anticoagulant Prescribing in the ETC (n=81)

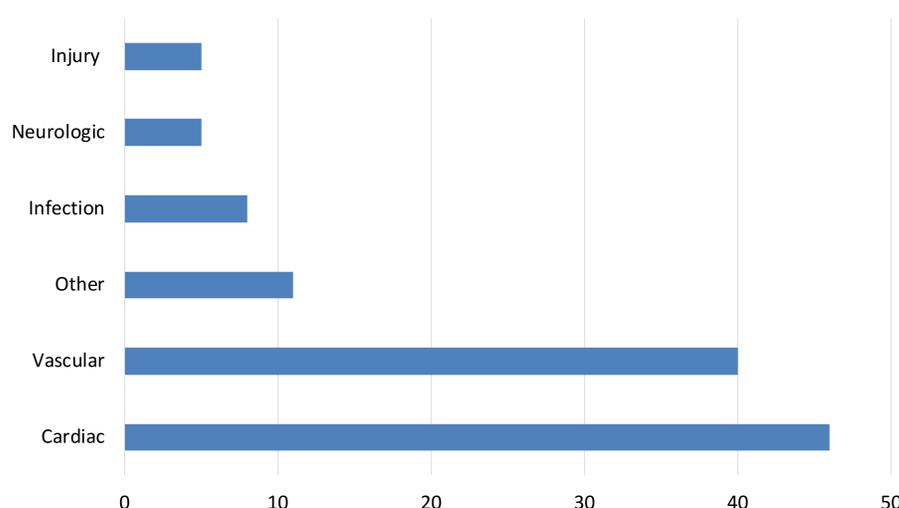


Ten patients were discharged from the emergency department with ongoing anticoagulation prescribed. Medication counselling was documented in 70% of instances with twice as many pharmacists providing information compared with medical officers.

## Conclusions

Anticoagulants are high-risk medications that are frequently initiated in the emergency department. Thorough documentation and counselling are essential to ensure safe and efficacious prescribing and use of anticoagulation. This project shows that early pharmacist involvement can help facilitate appropriate prescribing prior to administration of anticoagulation and can improve documentation of this high risk medication.

EDIS Diagnosis of patients prescribed therapeutic anticoagulation in the ETC (n=115)



In total, 81 orders out of the 115 orders assessed were prescribed by an emergency physician as opposed to admitting medical officers. Of the orders commenced by the emergency department, enoxaparin was the most commonly prescribed anticoagulant, comprising 41 of the 81 orders reviewed. Of these, 46% did not have a weight recorded while in the ETC.

## References

1. Safetyandquality.gov.au. (2019). *APINCHS classification of high risk medicines* [online] Available at: <https://www.safetyandquality.gov.au/our-work/medication-safety/high-risk-medicines/apinchs-classification-high-risk-medicines> [Accessed 15 Mar. 2019].
2. Cec.health.nsw.gov.au. (2019). *High-risk Medicines, Anticoagulants*. [online] Available at: <http://www.cec.health.nsw.gov.au/patient-safety-programs/medication-safety/high-risk-medicines/anticoagulants> [Accessed 15 Mar. 2019]