

A Study on the Impact of a Clinical Pharmacist-Led Educational Intervention

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Abstract

Anticoagulants are high-risk medications frequently associated with errors in Australian hospitals, often due to nursing knowledge gaps. At Caboolture Hospital (CABH), they were the second most reported cause of medication incidents between March 2024 and February 2025, primarily involving omissions, documentation errors and duplicate therapies. This study evaluated a pharmacist-led educational intervention to improve nursing knowledge and confidence in anticoagulant management and explore behavioural/systemic barriers.

Sixteen enrolled and registered nurses (EN/RNs) from eligible wards participated in a 30-minute pharmacist-led education session on pharmacology, safe administration, and common errors at CABH. Pre- and post-intervention knowledge quizzes (10 items) and confidence surveys (5 items), along with a feedback survey were conducted. Data were analysed using paired t-tests. Ethics exemption was granted by the Metro North Health Human Research Ethics Committee.

Participants had a median of 2 years' nursing experience. Mean improvements were 2.38 for knowledge and 3.38 for confidence. Behavioural barriers included knowledge deficits (44%) and time constraints (25%), while systemic factors were staffing shortages (38%) and limited educational opportunities (25%).

Pharmacist-led education improved nurses' knowledge and confidence in anticoagulant management at CABH, addressing key barriers and emphasising the importance of ongoing staffing support and continuous education.

Keywords

Anticoagulant, Nursing education, Medication safety, High-risk medications, Pharmacist-led intervention.