Introduction

Venous thromboembolism (VTE), including deep vein thrombosis and pulmonary embolism, remains a leading preventable cause of morbidity and mortality in hospitalized patients, particularly those undergoing emergency general surgery. Guidelines such as NICE NG89 recommend risk assessment upon admission and prophylaxis within 24 hours unless contraindicated, while the ACCP 2012 guidelines emphasize pharmacological prophylaxis as first line. This audit aimed to evaluate compliance with VTE risk assessment and prophylaxis protocols in emergency surgical patients at St. Thomas' Hospital, London, and King Abdullah University Hospital (KAUH), Jordan, to identify differences in adherence and propose measures to improve patient safety.

Methods

This audit included adult patients (≥18 years) admitted for emergency general surgery. Data at KAUH were collected retrospectively from January 2024 to March 2025, while St. Thomas' data were prospectively collected in February 2025. Patients already on anticoagulation, undergoing elective surgery, or with contraindications to prophylaxis were excluded. Data were recorded using a standardized proforma capturing demographics, completion of VTE risk assessment, prescription of pharmacological and mechanical prophylaxis, documentation of reasons for omission, and timing of prophylaxis initiation. Two medical students, supervised by faculty, performed the data collection.

Results

Risk assessment was completed for all Jordanian patients and most UK patients, reflecting strong compliance with guideline standards. However, prophylaxis practices differed significantly. At St. Thomas', 65.9% of patients received pharmacological prophylaxis and 35.7% mechanical prophylaxis, with decisions and omissions usually documented. In contrast, at KAUH, pharmacological prophylaxis was prescribed in only 5.8% of cases, while mechanical prophylaxis was used in 100%, and documentation of contraindications was limited. These results suggest systematic underuse of pharmacological prophylaxis in Jordan compared with the UK.

Conclusions

The audit demonstrates substantial variation in VTE prophylaxis practices between the two centers. St. Thomas' aligned more closely with international guidelines, while KAUH favored mechanical measures with limited pharmacological use. Improving documentation, reinforcing local education, and addressing barriers to pharmacological prophylaxis in Jordan could enhance compliance and patient safety. Targeted interventions in both settings may promote harmonization with global standards and reduce preventable VTE events.