The use of tablet computers to improve accurate documentation of venous thromboembolism prophylaxis decision-making

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Objective
All patients admitted to hospital should have a venous thromboembolism (VTE) risk assessment clearly documented. A target compliance of 90% is stipulated by the Department of Health to encourage good clinical practice and ensure patient safety. The aim of this project was to increase compliance with the electronic forms provided by the trust for documentation of VTE prophylaxis decisions.

Methods
An initial 1 week prospective audit was undertaken of VTE prophylaxis documentation using the electronic form provided by the trust. All acute medical admissions were included and VTE assessments were expected to be documented within 24 hours of admission. 3 subsequent one week audit cycles were performed following implementation of 3 interventions over a 5 month period. A staff questionnaire was used to identify the reasons clinicians failed to complete VTE assessments. A 1 day “spot-audit” was performed across all medical wards to assess the correlation between prescription of VTE prophylaxis and documentation of this decision for inpatients.

Intervention and Results
Of 287 patients admitted during the initial audit period, only 23% had an electronic VTE form completed within 24 hours. Despite this 86% (117/136) of medical patients covered by the spot audit had appropriate VTE prophylaxis prescribed (figure 1). This confirmed that documentation of VTE prophylaxis has become an essential part of patient care with the majority of medical patients having an appropriate decision made.

Figure 1. Spot Audit results: Number of medical inpatients with appropriate VTE prophylaxis decision-making compared with VTE form completion.

The Starting Point
VTE assessment forms completed electronically on static desktop computers

Audit Cycle 1
23%
(67/287) Compliance with electronic VTE form

1st Intervention
Education and motivation of doctors and tick box reminders on paper admission lists

Audit Cycle 2
44%
(117/265) Compliance with electronic VTE form

2nd Intervention
“Pop-up” reminder message on the electronic system to alert doctors accessing a patient’s file to an uncompleted VTE form

Audit Cycle 3
71%
(211/297) Compliance with electronic VTE form

3rd Intervention
Each acute general medical firm was supplied with an iPad securely linked to the hospital wireless network, enabling clinicians to unite the process of VTE prophylaxis assessment with its documentation

Audit Cycle 4
90%
(207/231) Compliance with electronic VTE form

Figure 2. Percentage compliance with VTE prophylaxis decision-making within 24 hours of admission.

VTE prophylaxis has become an essential part of patient care with the majority of medical patients having an appropriate decision made. This audit has shown that iPad computers can unite this clinical decision with the essential process of its documentation at the patient’s bedside. The bedside access to electronic forms significantly increases compliance with documentation, and therefore improves clinician accountability and ultimately patient safety. The iPad also facilitates rapid access to test results, imaging and discharge summaries during ward rounds and other bedside encounters, impacting clinical efficiency beyond VTE assessment and making it a very sustainable intervention.

Reference: Department of Health (2009b). Using the Commissioning for Quality and Innovation (CQUIN) payment framework (with addendum for 2010/11). There are no conflicts of interest influencing the project

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