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EVALUATION OF THE MEDICINES RECONCILIATION AND VTE RISK ASSESSMENT ROLES OF THE PRESCRIBING PHARMACISTS ON THE ELECTIVE THEATRE ADMISSIONS UNIT

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Introduction

EQUIP study (Dornan et al 2009) demonstrated:

- a 9% prescribing error rate amongst doctors of all grades
- errors most commonly made at the time of admission to hospital
- most errors were identified and corrected following pharmacist intervention

The National Institute of Clinical Excellence (NICE) recommends medicines reconciliation to be completed within 24 hours of admission to hospital

A recent patient safety solution issued by the World Health Organisation highlighted

- Up to 67% of patients' medication histories taken by medical staff have one or more errors.
- Up to 46% of medication errors occur when new orders are written at admission or discharge

Studies have shown that unintentional discontinuation of long-term medications for chronic diseases may increase risk of adverse effects (Bell et al 2011)

In house audit data showed 33% of patients had no regular medications prescribed post operatively

- Based on a predicted 2600 elective surgical patients per year taking an average of 4 regular medications prescribed per patient, this translates into **3432 errors which could be prevented by pharmacist independent prescribing**

Electronic prescribing at Chesterfield Royal Hospital has been in place since June 2010.

The National Venous Thromboembolism Commissioning for Quality and Innovation (VTE CQUIN) goal to reduce avoidable death, disability and chronic ill health from VTE requires that 95% of patients are risk assessed for VTE within 24 hours of admission.

From April 2012 – Aug 2012 in house data showed risk assessments for venous thromboembolism (VTE) were completed in 81% of patients (surgical, orthopaedic and gynaecology inpatients).

Objectives

To determine if patients' regular medications are appropriately prescribed by independent prescribing pharmacists within 24 hours of admission to hospital, in accordance with NICE

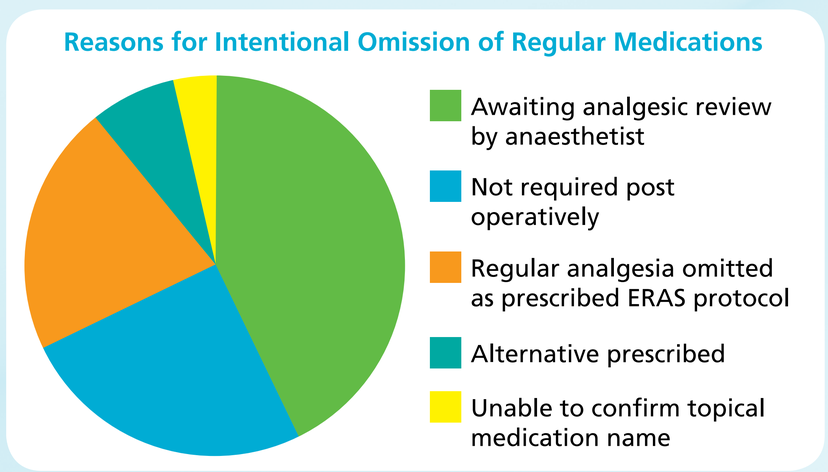
Review the quality of documentation for intentionally omitted regular medications

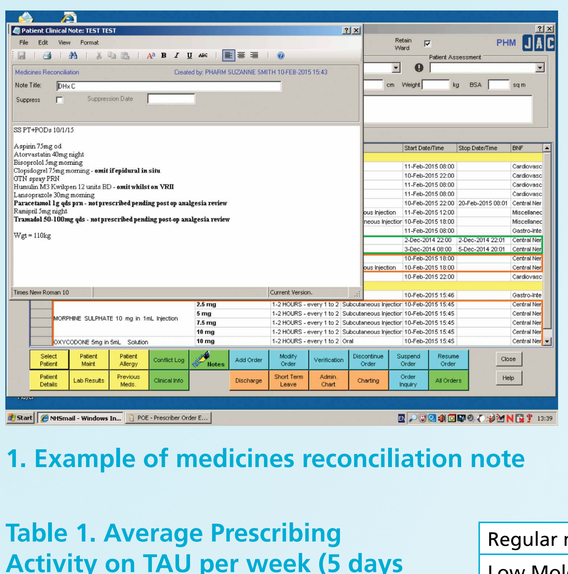
Ensure compliance with VTE CQUIN recommendations for 95% of VTE risk assessments completed within 24 hours of admission to hospital.

Ensure appropriate thromboprophylaxis prescribed in accordance with the VTE risk assessment.

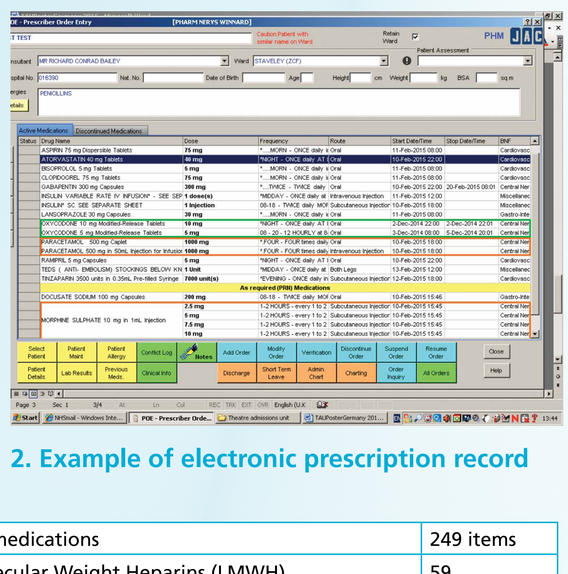
Results

- Sixty-two patients reviewed over 5 days
- Medicines reconciliation was completed in 100% of patients within 24 hours
- In an average 5 day week on TAU, the independent prescribing pharmacist prescribed 249 regular medications
- In 28 / 62 patients, 28 regular medications were not prescribed but an appropriate reason was documented on the electronic prescription record. Over 50% of these intentionally omitted medications related to analgesia, which were substituted in accordance with the Trust acute pain guidelines.
- VTE risk assessment completed in 100% of patients and appropriate thromboprophylaxis prescribed





1. Example of medicines reconciliation note



2. Example of electronic prescription record

Table 1. Average Prescribing Activity on TAU per week (5 days Monday to Friday)

Regular medications	249 items
Low Molecular Weight Heparins (LMWH)	59
TEDS	56
Prophylactic antibiotics	10
ERAS protocol	108
Tranexamic acid	13
Intramuscular hydrocortisone	5
Variable rate insulin infusion	2
Other	2
Time taken by pharmacist and pharmacy technician	840 minutes

Methods/Study Design

There have been a cohort of prescribing pharmacists on Theatre Admissions Unit (TAU) since Oct 2012. Their roles include:-

- Prescribing regular medications
- Completing VTE risk assessments and prescribing appropriate thromboprophylaxis
- Prescribing appropriate prophylactic antibiotics
- Prescribing enhanced recovery arthroplasty surgery (ERAS) protocol for patients undergoing hip and knee replacements
- Peri-operative management of diabetes mellitus, steroids and regular medications.

The role of the pharmacy technicians is to complete medicines reconciliation for each patient on TAU.

Retrospective analysis of electronic prescription records for all patients admitted to TAU over a 5 day period.

Analysis of pharmacist activity data for a 5 day period on TAU.

Discussion

Prescribing pharmacists and pharmacy technicians have a pivotal role in completing medicines reconciliation within 24 hours and prescribing regular, chronic medications to ensure patients to do not miss doses thereby potentially reducing the risk of complications post surgery.

Early completion of VTE risk assessments and prescribing of appropriate thromboprophylaxis will also reduce the risk of complications post surgery and reduces the burden of hospital associated thrombosis.

The presence of a prescribing pharmacist on TAU has also resulted in additional interventions being made including:

- Advising on and prescribing intraoperative antibiotics
- Managing SC insulin pumps pre and post operatively
- Managing anticoagulants and antiplatelets in the peri-operative period
- Answering medicines-related queries from anaesthetists.

Conclusion

- Pharmacist prescribing in the theatre admissions unit has significantly improved quality and accuracy of prescribing in elective surgical patients for both regular medications and thromboprophylaxis.

Acknowledgements

Prescribing pharmacist colleagues and pharmacy technicians; TAU nursing staff, healthcare assistants and receptionists; Anaesthetists; Surgeons, Orthopaedic surgeons; Gynaecologists.

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