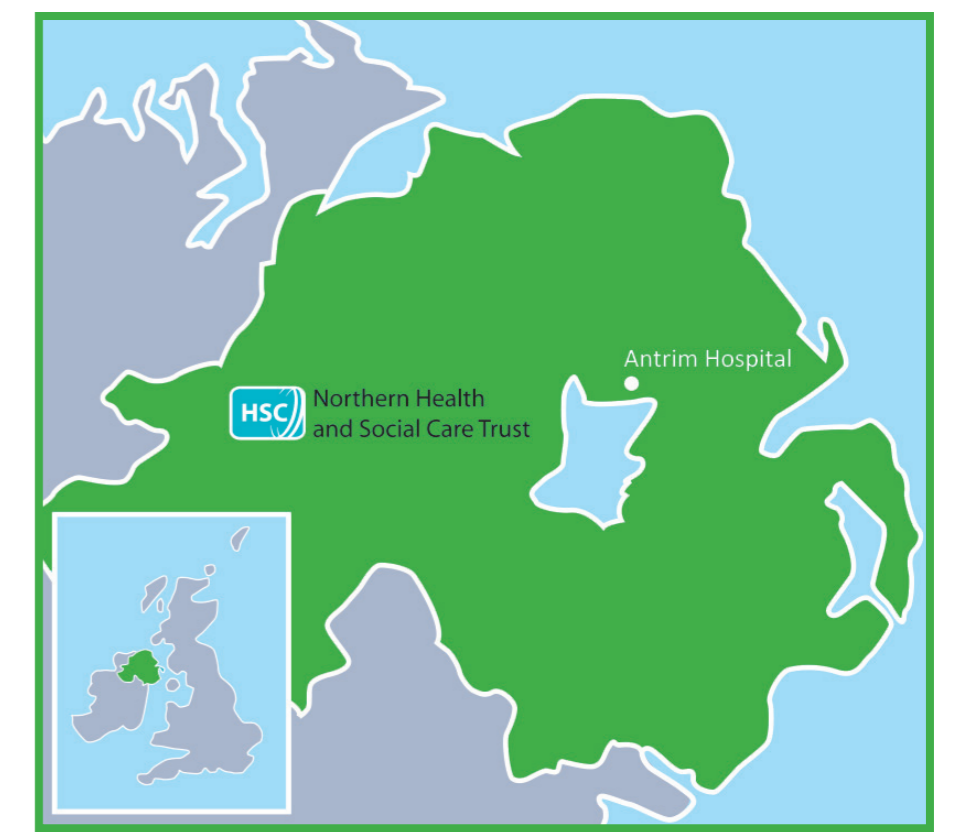


Writemed Electronic Medication Reconciliation System



Background

Medication errors can occur at transition points in patient care, including hospital admission and discharge. This is caused by a lack of communication and may be responsible for up to 50% of medication errors and up to 20% of adverse drug events in hospital. In order to help prevent these problems arising, it is recommended, by NICE, that hospitals in the UK undertake a process of medicines reconciliation when patients are admitted or discharge. Whilst NICE, in 2007, guidance states '*pharmacists should be involved in medicines reconciliation as soon as possible after admission*'.

Medicines reconciliation or Medrec is a formal process in which healthcare providers work together with patients, families and care providers to ensure accurate and comprehensive medication information is communicated consistently across transitions of care. This requires a

systematic and comprehensive review of all the medications a patient is taking to ensure that medications being added, changed or discontinued are carefully evaluated.

Medrec is a component of medication management and will inform and enable prescribers to make the most appropriate prescribing decisions for the patient.

Development

Medrec was traditionally carried out as a paper-based process. Under an innovation partnership, NHSCT and Yarra Software Ltd set out to develop an electronic solution – Writemed. The development was performed as a multidisciplinary group including consultant physician, general practitioners as well as pharmacists and pharmacy technicians.

Features:

Communication - Patient

- ensures all medicines are fully reconciled and increases the speed of the process
 - enables this information to be sent electronically to the GP as the complete list of all medication including any changes to the admission medications. It is available in the Regional Electronic Care Record (NIECR)
- all medication changes made during the hospital stay are fully documented
 - For GP
 - Other healthcare professional
 - Patient/carer

Communication - Clinical

- Writemed is a web based system which interfaces with systems e.g.
- Patient Administration System (PAS)
 - Dm+d - NHS Drug and Medical Devices dictionary
 - EPICS (Electronic Pharmacy Intervention Computer System)
 - Patient Centre
 - NIECR

Patient facing

- Writemed is LIVE across Northern Health & Social Care Trust
- Used for every patient who is seen by the pharmacy team and are currently over 56,000 records on the system (October 2015)
- Used on the wards and clinics with patients and on ward rounds with clinical staff
- This leads to improvement in patient care as it records:
 - ✓ Details about each medication
 - ✓ Additional information
 - ✓ Information about hospital stay, sources used to collate medicines list
 - ✓ Lab test results
 - ✓ The admission medications form part of the discharge list for the patient

Portable

- If the patient has been in hospital on previous occasions earlier records can be accessed and viewed by
- ✓ ANY USER
 - ✓ ANY LOCATION
 - ✓ ANY TIME

Standardisation

- Writemed has numerous advantages over the old paper based systems including:
- Medication details are standard and taken from Dm+d - NHS Drug + Medical Devices dictionary
 - Patient's medrec information is retained within the system indefinitely
 - Discharge medication list is pre-populated from completed admission medrec
 - This list is exported and forms part of the patient's discharge information for the GP
 - Next admission medrec is populated from the previous admission medications

Resource

- The system provides a rich resource for
 - targeting care
 - clinical audit
 - research
- Enables managers
 - to move staff to areas of greatest need
 - to use information for budgeting analysis
 - to assess patient interaction
 - to view medication usage

Patient safety

- Writemed allows
- Reduction in transition medication errors
 - Liaison with primary care
 - Robust compliance with NICE guidance for medicines reconciliation
 - A fully reconciled medicines list to be readily available throughout the patient's stay
 - Medrec indicator is readily available as one of part of a high quality medicines system as indicated by the National Medicine Optimisation Dashboard in England
 - Best practice as identified by Institute for Healthcare Improvement (IHI) in USA and ISMP in Canada

Enabling

- Writemed can be used in any Health Trust as
- It is patient orientated and not process orientated
 - It greatly improves the safety and quality of medicines for patient therapy
 - Maximises pharmacy team expertise by the provision of this enabling technology
 - Enables pharmacy staff to meet current national and international guidance on admission and discharge

Future

Writemed is reviewed regularly in order to develop and further enhance the process and system. Phase 3 of the project is being embarked upon after an in depth analysis with user input to phase 2. The Phase 3 requirements have also been scoped by the software company.

This next stage will be full electronic uptake into the General Practice system and ultimately into the Community Pharmacy systems to give a fully integrated medication system.

The system is now routinely used and embedded into practice. The linkage with EPICS further enhances the medicines management processes within the Trust.

Smarter Medicines Better Outcomes