The next step towards integrated medicines management

E-Prescribing and Medicines Administration

e-Prescribing and Medicines Administration has been repeatedly identified as a core service for all NHS Trusts; driving up patient safety standards, reducing medication errors and making medicines therapy services more efficient.

The main aim of Electronic Prescribing and Medicines Administration (EPMA) systems is to improve patient safety by reducing prescribing and administration errors that could result in medication errors and adverse drug events.

EPMA also facilitates wider improvements in clinical practise: reductions in paperwork and transcriptions; improved audit trails for medication; performance monitoring and intelligence; reporting for PbR; greater consistency and continuity of care between primary and secondary care settings; and more enhanced communication between hospital departments and pharmacies.

Clinical benefits

- A reduction in the risk of medication errors.
- Accurate and up-to-date locally defined drug databases.
- Access to clinical decision support and medicines information aiding the choice of medicines, with alerts such as duplications, drug-drug interactions, etc.
- Patient-specific alerts and alerts for allergic reactions and drug interactions.
- Fully legible prescriptions.
- Guidance for inexperienced prescribers.
- Discharge prescriptions.

Organisational benefits

- Computerised entry and management of prescriptions.
- Computerised communication between hospital wards/departments and pharmacies.
- Improvements in existing work processes.
- A robust audit trail for the entire medicines process.
- Reduction in paper-based process problems.

Patient demographics

Patient demographics are stored and updated automatically to support the retrieval of current and historic medication information as well as to aid clinical decision support. The JAC system also gathers detailed allergy, height and weight information during inpatient admission.

Inpatient prescribing

Full EPMA supports the prescribing of medicines for the inpatient admission, with subsequent administration. A variety of functions are provided to support the entry and maintenance of the inpatient prescription including:

- Prescribing of individual medicines.
- Prescribing of order sets.
- Changing the prescription.
- Re-prescribing of previous treatment.

Outpatient prescribing

The system supports the generation of an outpatient prescription that is made available within the pharmacy department upon completion. The outpatient prescription is dispensed by pharmacy following pharmacist clinical verification.

Discharge prescribing

The system supports the generation of an interim discharge letter incorporating the active medicines profile for the patient, and drugs required for dispensing at discharge.

As the discharge letter is completed on the ward, any medicines that require dispensing are automatically made available within the dispensing module and scheduled based on an indicated urgency.

Short-term leave

A prescription may be created for a patient who is leaving the hospital for a short period of time. When the medicines are selected for the prescription, the system will calculate the supplies required for the time period that the patient will be on leave.

When the patient leaves the ward, all inpatient prescriptions and administrations are suspended.

Clinical decision support

Drug interaction checking, therapeutic duplicate checking, allergy checking and drug monographs functionality is available and supported using the Multilex Drug Data File (UK) provided by FirstDataBank Europe.

Nurse administration

The system is designed to facilitate the recording of administrations at the patient's bedside. Support is also provided for patients who are self administering.

Clinical pharmacist verification

Verification provides clarity for nursing staff that the prescription has been clinically reviewed. The verification process allows information such as whether the patient was admitted on the medicine, have their own supply, and whether they are self administering to be recorded.

Formulary management and control

Promotion of the drug formulary is an important consideration for any Trust. The system provides comprehensive functionality which allows the Trust to implement the formulary at a variety of levels. Formulary can be managed at Directorate, Specialty, Grade and individual prescriber levels.

Clinical notes

Within both prescribing and administration functions, clinical notes may be added, modified, discontinued and/or viewed. Clinical notes may be added to the patient or to the drugs that have been prescribed.

Integration with pharmacy management system

Any prescribed items that are non-stock, or required on discharge, short-term leave or outpatient prescriptions will be immediately available for dispensing within the pharmacy system.