EMM | Electronic Medication Management Program

CLOSED LOOP ELECTRONIC MEDICATION MANAGEMENT

Metro North Hospital and Health Service *Putting people first*

The quality of medication allergy and adverse drug reaction documentation across electronic and paper sources

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Background

A patient's allergies and adverse drug reactions (ADRs) can be recorded in up to twelve key paper and electronic sources within the Royal Brisbane and Women's Hospital (RBWH). The lack of integration introduces the risk of patient harm from re-exposure.

Aim

To investigate the quality, accuracy and completeness of ADR documentation across electronic and paper-based sources.

Method

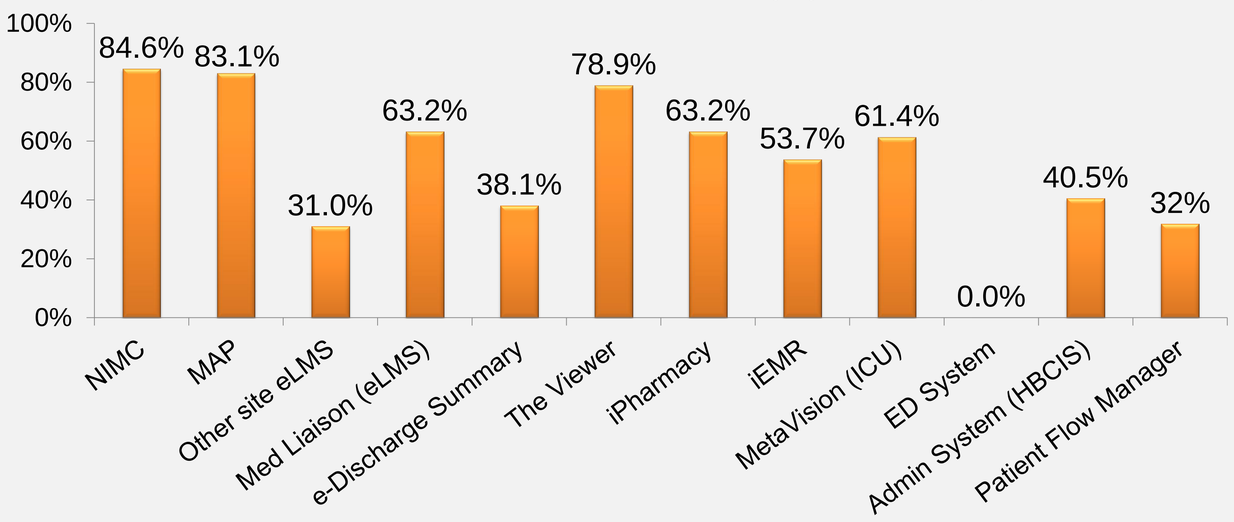
A sample of 111 patients who had a documented ADR on the medication chart were randomly selected from each ward, over a two week period. The ADR was then cross-referenced in up to 10 different electronic and two paper-based systems for comparison. A secondary check of 87 patients who had no allergies recorded on the medication chart were also checked, in order to determine patients who had an ADR in an electronic system which was not documented at the point of care.

Results

Completeness of ADR documentation:

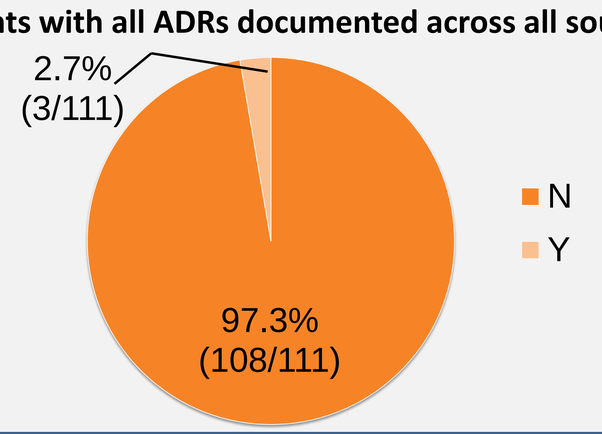
- 242 ADRs or allergies documented in 111 patients
- Average completeness in each system was 52.5%
- Highest was 84.6% on the National Inpatient Medication Chart (NIMC). Lowest was 0% in the Emergency Department Information System (EDIS)

ADR documentation across electronic and paper-based systems



- Only 2.4% (6/242) of ADRs, and 2.7% (3/111) of patients had a complete ADR history documented in all relevant sources

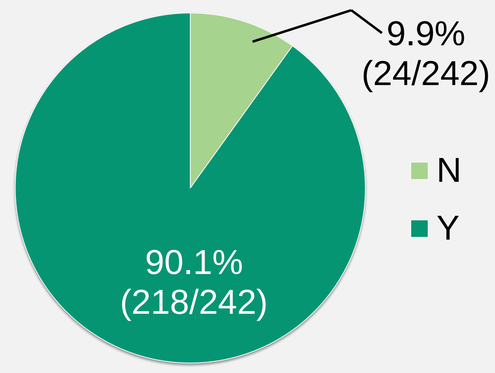
Patients with all ADRs documented across all sources



Reaction description:

- On average across the systems, 15.4% of ADRs did not have the description of the reaction documented
- In 9.9% (24/242) of ADRs the description varied, increasing the difficulty of making prescribing decisions.

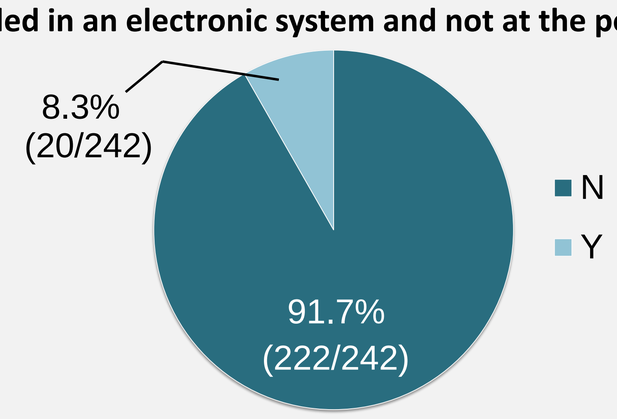
ADRs with a consistent description of the reaction in each source



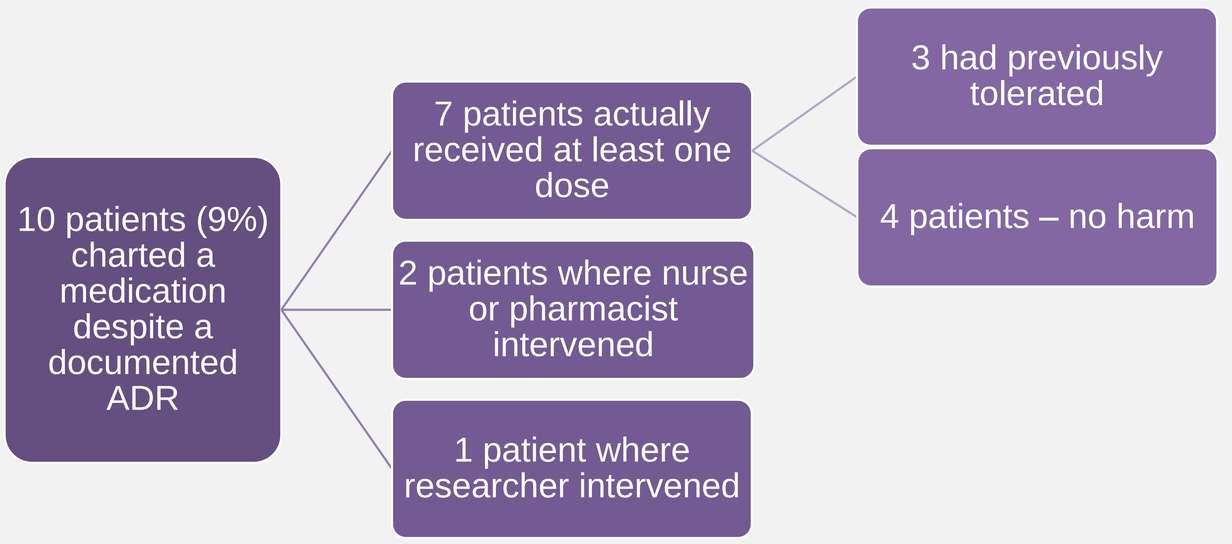
Documentation at the point of care:

- 8.3% (20/242) of ADRs were recorded in an electronic system and not at the point of care where administration safety checks occur
- In 4.6% (4/87) of patients where nil known allergies were recorded on the NIMC, there was a documented ADR in an electronic system

ADR recorded in an electronic system and not at the point of care



Prescribing where an ADR or allergy was documented:



Conclusion

There is a need for improved documentation of patients' allergy and ADR information. Since this audit, the source of truth and procedure for documenting ADRs has changed within RBWH. This also highlights the potential benefits of EMM solutions and clinical decision support in improving the quality of ADR documentation and alerts to reduce the risk of patient harm.

Contact Us

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