Improving patient safety through the establishment of an 'Anonymous Adverse Incident Reporting and Learning System' for Community Pharmacists in Northern Ireland.

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Introduction

The way to improve safety across any discipline is to encourage reporting of incidents and then disseminate any learning.[1] Prior to October 2011, there was no system in place for community pharmacists in Northern Ireland to report any dispensing incidents. Although larger chains have their own 'in house' system for sharing learning, smaller chains or independent pharmacies have had no official mechanism to learn about incidents occurring in other pharmacies or to benefit from any shared learning.

Objectives

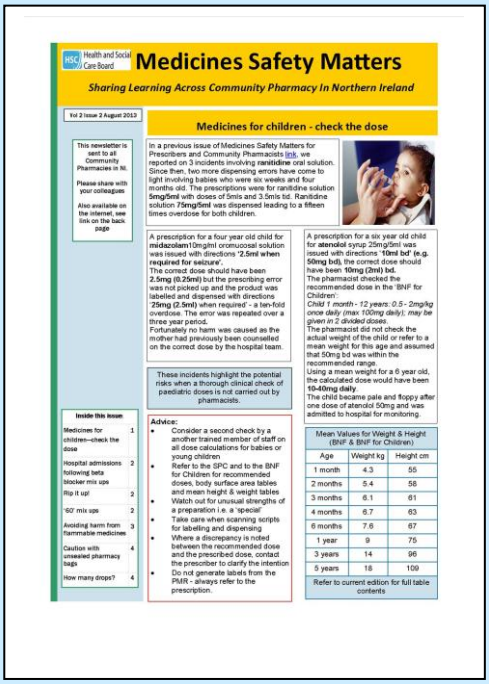
To improve patient safety by encouraging CPs (community pharmacists) to report adverse incidents (dispensing errors and 'near misses') anonymously to HSCB and subsequently share learning from adverse incidents among all CPs in Northern Ireland.

'Near miss' is defined as an incident detected up to and including the point at which the medication was handed over to the patient or patient's representative.

Dispensing error is an incident detected after the patient had taken possession of the medication.

Methodology

- Consultation with peers and experts in patient safety with agreement to promote an anonymous reporting culture.
- Development of the reporting form which was distributed to all CPs in NI.
- Training delivered across NI to CPs through Northern Ireland Centre for Pharmacy Learning & Development (NICPLD) to highlight the main principles of safer dispensing and to promote reporting.
- Reported incidents analysed and Datix coded and learning shared with all CPs in NI through the Medicines Safety Matters newsletters.
- Survey sent to CPs to determine how useful they rate the new service and safety newsletters.



Medicines Safety Matters

Sharing Learning Across Community Pharmacy In Northern Ireland

Vol 2 Issue 2 August 2013

Medicines for children - check the dose

This newsletter is sent to all Community Pharmacies in NI.

Please share with your colleagues

Also available on the internet, see link on the back page

In a previous issue of Medicines Safety Matters for Prescribers and Community Pharmacists link, we reported on 3 incidents involving **ranitidine** oral solution. Since then, two more dispensing errors have come to light involving babies who were six weeks and four months old. The prescriptions were for ranitidine solution **5mg/5ml** with doses of 5mls and 3.5mls bd. Ranitidine solution **75mg/5ml** was dispensed leading to a fifteen times overdose for both children.

A prescription for a four year old child for **midazolam**10mg/ml oromucosal solution was issued with directions **'2.5ml when required for seizure'.** The correct dose should have been **2.5mg (0.25ml)** but the prescribing error was not picked up and the product was labelled and dispensed with directions **'25mg (2.5ml)** when required' - a ten-fold overdose. The error was repeated over a three year period. Fortunately no harm was caused as the mother had previously been counselled on the correct dose by the hospital team.

A prescription for a six year old child for **atenolol** syrup 25mg/5ml was issued with directions **'10ml bd' (e.g. 50mg bd),** the correct dose should have been **10mg (2ml) bd.** The pharmacist checked the recommended dose in the 'BNF for Children' *Child 1 month - 12 years: 0.5 - 2mg/kg once daily (max 100mg daily); may be given in 2 divided doses.* The pharmacist did not check the actual weight of the child or refer to a mean weight for this age and assumed that 50mg bd was within the recommended range. Using a mean weight for a 6 year old, the calculated dose would have been **10-40mg daily.** The child became pale and floppy after one dose of atenolol 50mg and was admitted to hospital for monitoring.

These incidents highlight the potential risks when a thorough clinical check of paediatric doses is not carried out by pharmacists.

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Advice:

- Consider a second check by a another trained member of staff on all dose calculations for babies or young children
- Refer to the SPC and to the BNF for Children for recommended doses, body surface area tables and mean height & weight tables
- Watch out for unusual strengths of a preparation i.e. a 'special'
- Take care when scanning scripts for labelling and dispensing
- Where a discrepancy is noted between the recommended dose and the prescribed dose, contact the prescriber to clarify the intention
- Do not generate labels from the PMR - always refer to the prescription.

Mean Values for Weight & Height (BNF & BNF for Children)

Age	Weight kg	Height cm
1 month	4.3	55
2 months	5.4	58
3 months	6.1	61
4 months	6.7	63
6 months	7.6	67
1 year	9	75
3 years	14	96
5 years	18	109

Refer to current edition for full table contents

Results

- 665 anonymous incidents have been reported to HSCB since October 2011.
- The incidents have been coded according to the Datix codes for classifying medication incidents as shown in Figure 1.
- The most common incident has been the wrong dose/strength of medication, followed by a mismatch between patient and medicine.
- 5 issues of Medicines Safety Matters have been published.
- Key messages are the contributory factors and learning around incidents, particularly those that have occurred in more than one pharmacy and/or have caused harm.

Results (continued)

- In the survey, pharmacists said that the newsletters/service are useful and relevant (see Figure 2).

Figure 1: Percentage of Anonymous Adverse Incidents Received According to Datix Subtype

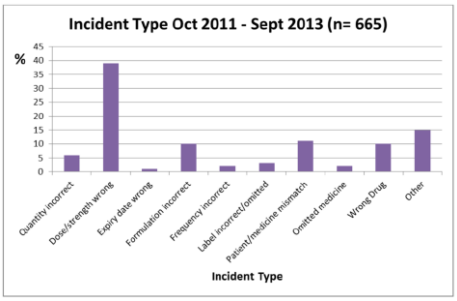
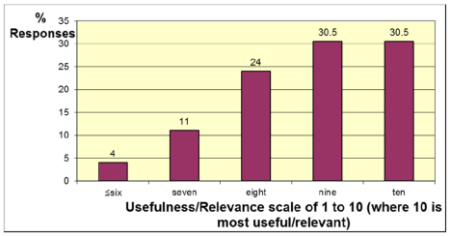


Figure 2: Results of Questionnaire Sent to Community Pharmacists



Way forward

- Priority is for reporting to continue and increase.
- Other suggestions for improving the service include:
  - On line reporting
  - Linking reporting to Continued Professional Development

For further information, see Medicines Safety Matters on the web:

http://www.hscboard.hscni.net/medicinesmanagement/

REFERENCE

1. Seven Steps to Patient Safety in Primary Care, NPSA