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SingHealth
Defining Tomorrow's Medicine

Enhancing Medication Safety Risk Management across SingHealth

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In consultation with SingHealth Medication Safety Workgroup
With support from SingHealth Risk Management Office

Introduction

Medication errors are among the top concerns for patient safety across SingHealth Institutions. With the formation of the SingHealth Medication Safety Workgroup, the opportunity presented for identifying the common causes for medication errors across institutions. Since April 2011, data on medication errors were reported by individual institutions based on the National Coordinating Council for Medication Error Reporting and Prevention (NCC-MERP), 1996 classification system. As Medication errors can occur at any care delivery point and the outcomes are variable and may range between clinically insignificant to life-threatening, more granular data has to be collected for further analysis to identify the gaps.

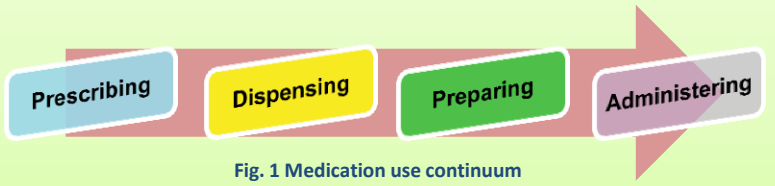


Fig. 1 Medication use continuum

This initiative is to develop an easy-to-use system for data collection and classification that will provide the data required for proactive identification of key risk points along the medication use continuum so that targeted efforts could be undertaken to address the key risks.

Methodology

CURRENT STATE ASSESSMENT

SingHealth RMO conducted a survey in April 2011 to find out what individual institutions do to collect data on medication errors. The results of the survey were mapped to the NCC MERP index as shown in figure 2a.

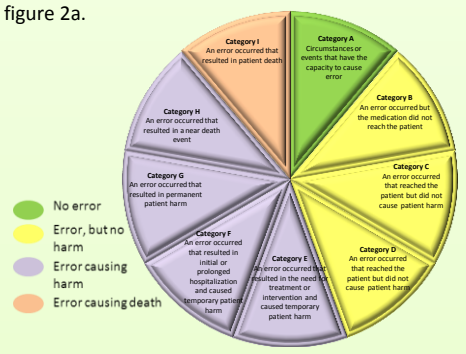


Fig. 2a Scale adapted from 2001 NCC MERP Index for Categorizing Medication Errors

STRATIFICATION

Individual institutions were consulted to identify the sources of errors and incident types under each of the NCC MERP medication error categories at the respective institutions. These were reviewed to develop a cluster-wide standard list of medication error incident types. Figure 2b shows the key risk points in the medication use continuum and commonly occurring incident types.

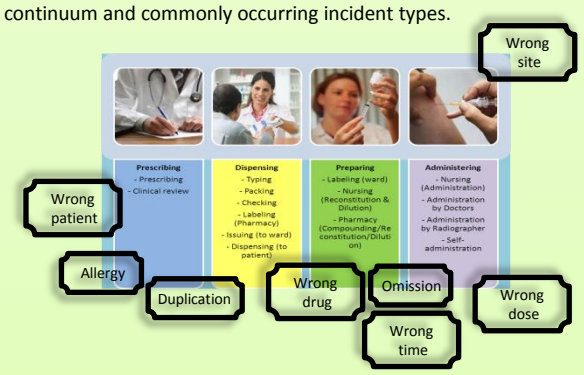
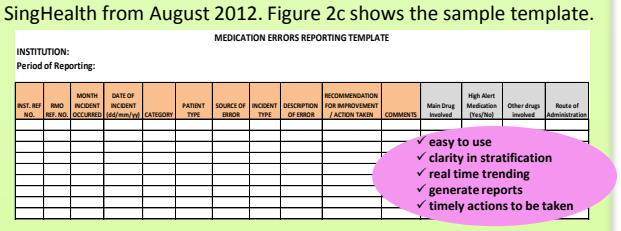


Fig. 2b Key risk points in medication use continuum and commonly occurring incident types

IDENTIFICATION

An easy-to-use medication error reporting tool complete with inbuilt macros was developed to enable institutions to identify the key risk points. This revised template was adopted for use across SingHealth from August 2012. Figure 2c shows the sample template.


MEDICATION ERRORS REPORTING TEMPLATE

INSTITUTION:
Period of Reporting:

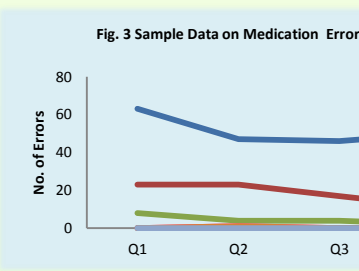
INST. REF NO.	RMO REF. NO.	MONTH INCIDENT OCCURRED	DATE OF INCIDENT (dd/mm/yy)	CATEGORY	PATIENT TYPE	SOURCE OF ERROR	INCIDENT TYPE	DESCRIPTION OF ERROR	RECOMMENDATION FOR IMPROVEMENT / ACTION TAKEN	COMMENTS	Main Drug involved	High Alert Medication (Yes/No)	Other drugs involved	Route of Administration

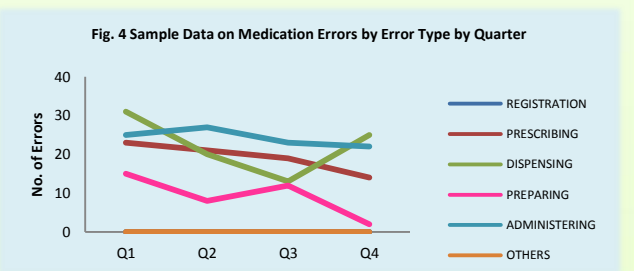
- ✓ easy to use
- ✓ clarity in stratification
- ✓ real time trending
- ✓ generate reports
- ✓ timely actions to be taken

Fig. 2c Sample medication errors reporting template

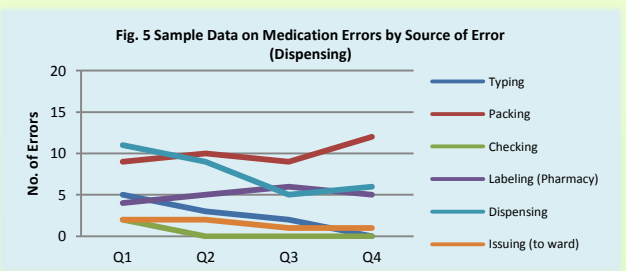
Result

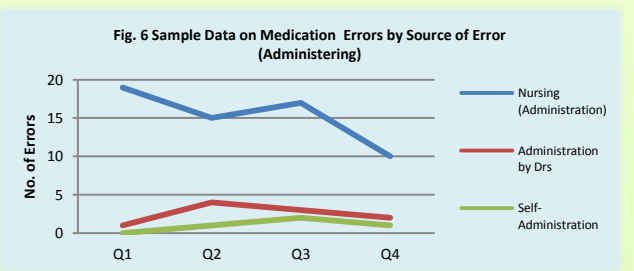
1 more **granular data** collected on medication errors which provided inputs for creation of a **centralized database for collation, analysis and monitoring** of medication errors data both at the institution and cluster levels.



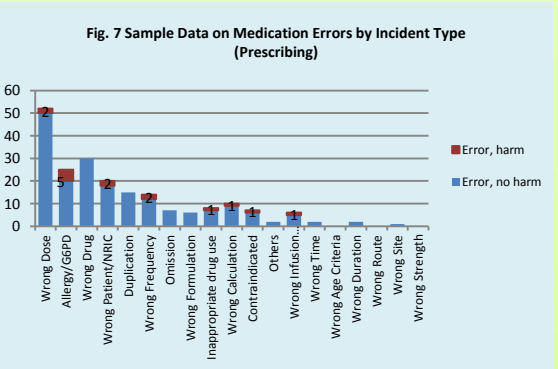


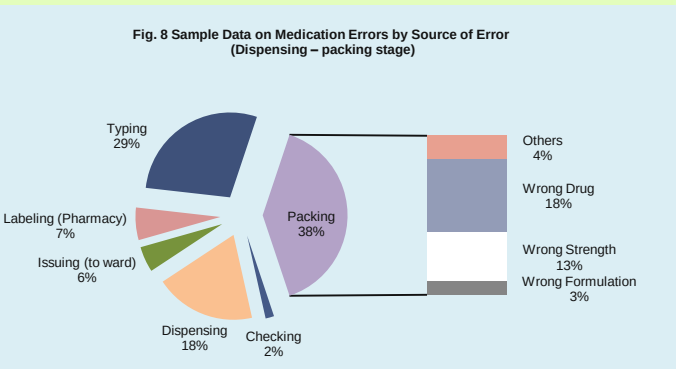
2 Institutions are now able to **identify emerging medication error risks** and work on appropriate strategies for enhancing existing controls and/or to put in place new measures to **assure patient safety**.





3 Ability to **quickly identify shifts** in prevailing medication error trends for **timely intervention** and to be discussed at the regular meetings of the SingHealth Medication Safety Workgroup. This would allow for **sharing of best practices** of all institutions for cost-effective solutions to better **manage the risks**.





Conclusion

Our medication-safety champions and gate keepers are empowered to do even better now that timely feedbacks on the status of medication-related adverse events are readily available for review. This has enabled us to identify areas for further improvement in our quality assurance and risk management journey.

Acknowledgement
This initiative would not be possible without the support of the dedicated members of the SingHealth Medication Safety Workgroup with guidance from Prof Kenneth Kwek. Many thanks to Prof Ng Han Seong, Mrs. Tan May Yan, Mrs. Ng Mee Yoke, Mr. Duke Cruz , Ms. Sim Wan, Mrs. Annellee Camet , and the SingHealth RMO team for their encouragement and support.

Reference:
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