

Capturing Medication Errors with PharmaBot Galway goes from 0 to 100 in 27 days!

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INTRODUCTION

In Scotland it is estimated that each year in hospitals 221,500 administration and prescribing errors occur and that up to 280 patients die as a result of a preventable death due to medications (1). In order to facilitate more reporting UHG and Medxnote developed a smartphone based rapid reporting and image submission tool based on the Medxnote Chatbot platform. This chatbot tool was named 'PharmaBot'

METHODS

UHG designed PharmaBot to ask the user a series of questions with predefined answers to classify and categorise the prescribing error.

The PharmaBot submission tool was adapted from the Irish Medication Safety Network (IMSN) dataset and augmented with a photo of the error. A Medxnote smart photo album manager was used to intelligently channel information based on user submission patterns and keywords. Baseline® software provided run charts for interventions per day (y-axis) vs date (x-axis).

RESULTS

Productivity

Mean reporting rate increased from 0.29 reports/day (n=118, sigma=0.35) to 3.72 (n=82 days, sigma=3.84 days).

Time to document reduced from 612 seconds vs 76 seconds (n=1 identical report)

Visual reports welcomed by:

1. The Irish Centre for Applied Patient Safety and Simulation (ICAPSS)
2. The Health and Information Quality Authority (HIQA) (2), and
3. The Peri-operative Directorate of UHG as an evidence base for changing internal processes.

PharmaBot pilots have now spread to several Irish teaching hospitals.

CONCLUSION

At UHG we have increased worker productivity by 800% and consequently seen a 1280% mean increase in reporting rates of medication safety issues of a highly visual nature.

This has helped to promote a wider acceptance of the need for change in the education of undergraduate medical students, and in the way we manage medicines in UHG.

Word count = 300

REFERENCES

- 1 Safer Use of Medicines. NHS Scotland. August 2015. <https://t.co/KCUo4YIIXc>
- 2 Report of the announced inspection of medication safety at Galway University Hospitals. Health Information and Quality Authority. 31 May 2017. <https://t.co/TQP4w2RNrh>