

# Hospital Pharmacists' Perspectives on Clinical Training in a Digital Environment – are we on track?



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## Background

Prescribing and administration of medications can be complex, and be associated with adverse events. Electronic medication management (eMM) systems such as eMeds have shown that there are gains in safety and efficacy to be made<sup>1</sup>. However eMM systems can also add other elements of risk and affect workflows, which in turn can result in potential adverse outcomes. Effective use of eMM systems depends on appropriate training and support for clinicians<sup>2</sup>. As there are many functionalities utilised in eMM systems, it is important to train users in these varied aspects and not solely the processes that they may use on a day-to-day basis. It is also important to recognise that training needs may differ. Hence a simple standard training approach, without additional resources to meet individual needs, may not be sufficient. The effectiveness of 1-on-1 training has been found to be of value to clinicians<sup>3</sup>. Current studies focus on enabling and supporting prescribers to become confident users with eMM systems. However studies investigating training methods for clinical Pharmacists within an eMM environment are lacking. Pharmacists have a role in all areas of medication management – including medication reconciliation, inpatient medication management, and DC medication reconciliation – all of which are now integrated and involve knowledge in the use of eMM systems.

## Aim

To explore clinical pharmacists' perspectives on eMM training methods at a metropolitan tertiary hospital. To describe clinical pharmacists' perception of eMM on pharmacy workflow.

## Method

A survey was developed in RedCAP and emailed to all clinical pharmacists. Completion of the survey was considered as consent to participate. Anonymity was maintained.

The survey included questions about:

- level of clinical experience
- details of prior eMM training and relevance to practice
- feedback on the effectiveness of eMM training on knowledge and ability to carry out clinical pharmacy services
- Perceived effect of eMM systems on pharmacy workflow.



## References

1. ACSQHC. "EMM systems: A guide to safe implementation" (2<sup>nd</sup> edn). Sydney 2012. Accessed online 22/11/16
2. O'Day R et al. Implementing EMM at an Australian Teaching Hospital. MJA 2011; 195(9):498-502
3. Kirshner M et al. AMIA ... Annual Symposium Proceedings / AMIA Symposium. AMIA Symposium [AMIA Annu Symp Proc] 2003, pp. 366-70
4. Joyce P, 2012. "Considerations of EMM systems in hospital setting". Studies in Health Technology & Informatics (STUD HEALTH TECHNOL INFORM), Sep2012; 178: 83-91

## Results

A total of 32 surveys were sent out, with a response rate of 81%. The median time participants had worked as a clinical Pharmacist was 5.5 years. 83% had previously used the paper-based National Inpatient Medication Chart (NIMC), and 92% had not used eMM prior to working at this hospital.

Pharmacists were most confident with documenting medication histories (96%), and least confident with rejecting potentially unsafe orders in eMM (28%). 57% said they felt their proficiency at using eMM systems was not assessed by another colleague, and almost half of all participants indicated they would like this done after any eMM training. Almost all participants said their initial training was critical to their ability to perform clinical duties.

Some of the participant comments on current eMM training are below::



95% stated that eMM systems impacted their workflow, and 40% felt that they spent less time with patients than prior to eMM implementation.

## Discussion

Our current training procedure with eMM involves sessions and training time with multiple staff across various departments, such as the IT and Pharmacy departments. The timing and order of these sessions depends on the individual department's availability, and the quality of information provided can vary depending on the trainer, their experience, and clinical background. For example, part of the initial eMM training may be provided by a computer or application specialist, who may not have a clinical background. This may affect both the trainer and the pharmacist's ability to understand how eMM integrates into the clinical workflow processes. User feedback is important to guide improvements to the overall training program and structure. Improved collaboration with and coordination of information provided by various trainers is also an important consideration for training.

## Conclusion

Safe and effective use of electronic medication management (eMM) systems requires appropriate training and support for pharmacists. The survey results are currently being used to develop clinical case-based training sessions, that are contextualised to support pharmacist learning within an eMM environment. Future research will evaluate the effectiveness of this intervention for our pharmacist training, in order to enable safer and more efficient use of these systems.