

## MEDICATION SAFETY

### World Patient Safety Day 2022: Medication without Harm

# Handwriting and free text risks in the contemporary age of EMM



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If your hospital has electronic medication management (EMM), you are likely so immersed in the routine of keyboard clicks and COWs or WOWs that it is hard to remember (or imagine) paper medication charts and the adjacent Medication Management Plan, the time taken to find the folder that holds the charts, and the challenge of deciphering active orders among ceased orders and identifying the doctors who wrote them. Welcome to my world and the world of many Australian clinicians: the world where we still use a paper medication chart.

In 2020, it was estimated that 30% of Australian public hospitals were using EMM.<sup>1</sup> Australia has progressed enormously in 20 years! However, that leaves a large proportion still using paper. Private hospitals are seeking 'return on investment' and hence lag even further behind in EMM implementation. So, while many clinicians are absorbed in the electronic environment and assume that peers across the country are equally technological, a vast amount of information in healthcare remains free text with a high risk of ambiguity and misinterpretation. Upon patient transfer, that information remains a part of handover which EMM-enabled clinicians must interpret and electronically transcribe — and once electronic we know that staff are likely to trust that it is correct, even if a mistake has been made.

Great as electronic systems are, they have down time, planned or otherwise. Technology fails us on occasion or is interfered with by hackers or malicious algorithms. In the chaos associated with system failure — and the rapid shift of medication orders onto paper charts — doctors must write orders and clinical notes that will not be misinterpreted by busy staff managing the crisis. Documentation must be meticulous, with active checks for known adverse reactions, duplicate prescribing, interactions, immediate or modified release formulations, etc. Doctors, nurses, and pharmacists must carefully assess charts and transfer documents to avoid potentially catastrophic medication errors. Could the U for units be mistaken for a zero and result in a ten-times overdose of insulin? Has a medication name been abbreviated leading to ambiguity, for example CBZ thought to be carbamazepine when carbimazole was intended?

***An EMM has alerts to prevent many common slips. There are no alarms in the paper world. There are also no alarms in the free text typed in electronic clinical progress notes. It isn't until their absence that clinicians realise how much they depend on alerts and forcing functions.***

Recently, we've heard from regional hospitals who struggle when doctors from metropolitan teaching hospitals and large regional hospitals rotate as part of their training. Often doctors write on paper charts for the first time on the first day of working at a smaller health service. In these circumstances, what are the medication safety risks for patients?

Clinical informatics has revolutionised the way we approach medication management, but Australia still has hybrid paper/electronic systems. There are risks of misinterpreting handwritten and free text documentation even in fully EMM-enabled organisations. Case examples used in education, even when there is EMM, should include a range of free text examples with meaningful medication safety lessons.

## References

1. Grant J. E-Medications growing across the country. *J Pharm Pract Res* 2020; **50**: 455