

ICU to Ward Transfer Medication Reconciliation: Lost in Translation!



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- Transitions of care are well known to be times that patients are at high risk of medication misadventure.
- The literature reports that more than 50% of medication errors occur at these times.⁽¹⁾⁽²⁾
- The transfer of patients from the Intensive Care Unit (ICU) environment is especially recognised to be a high risk for patients as the complexity of therapy administered in the ICU often means that significant adjustments to medication regimens need to occur once patients are well enough to be discharged to a clinical ward.

IDENTIFIED RISK

- The electronic medication management (eMM) system in use at the Royal Prince Alfred Hospital ICU (ICCA PHILIPS® - IntelliSpace Critical Care and Anaesthesia) is different from that used in general clinical wards (Cerner Millennium PowerChart®- eMeds) and the two systems do not interface.

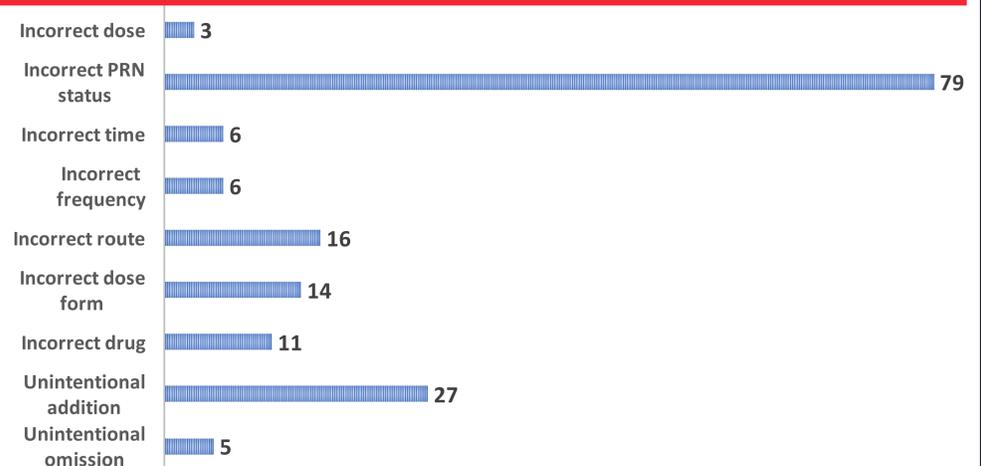
AIM

- To quantify the prevalence of medication errors and describe their classification for patients transferred from ICU to general wards where different eMM systems are in use.

METHODS

- Patients discharged from ICU to general wards within the preceding 24 hours were identified via an electronic report run daily over a 10 day period.
- The report was distributed to the clinical pharmacy staff covering the destination wards of the patient transfers.
- Ward pharmacists prioritised the review of these patients, and reconciled the medication orders and allergy status.
- Transcription errors between systems were identified and rectified with the medical teams within 24 hours of the transfer.

FREQUENCY OF MEDICATION ERRORS (n=77)



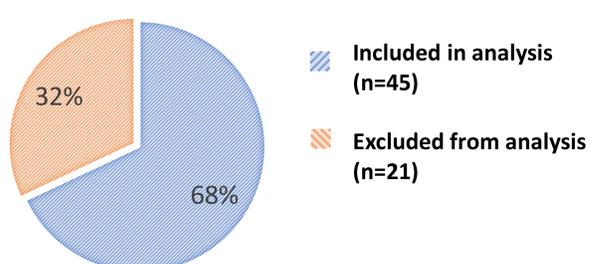
RESULTS

- Forty-five out of sixty-six patients transfers were included for analysis.
- The median and average number of medications prescribed for patients was 9 and 10 respectively.
- VTE prophylaxis and allergy status were reconciled correctly in 96% of transfers (n=43/45).
- Electronic fluid orders and continuous intravenous infusions were transferred onto paper charts correctly in 12/15 cases.

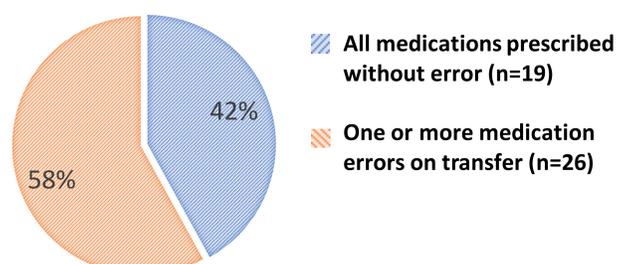
TYPES OF MEDICATION ERRORS

- The kinds of medication omissions detected in the analysis were unlikely to result in significant harm and include instances of failure to prescribe ranitidine, anti-emetics, inhaled beta-agonists and creams.
- Amongst the significant omissions were three patients where an insulin order was not prescribed, and where hydralazine and oral cortisone were omitted. Omissions also included continuous intravenous infusions of heparin and flucloxacillin.

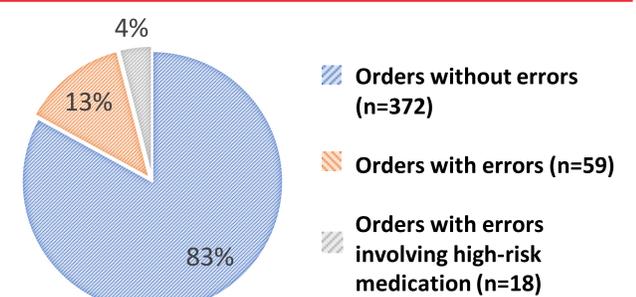
Number of ICU to general ward transfers (n=66)



Number of patients included in analysis (n=45)



Number of medication orders reconciled (n=449)



CONCLUSION

- eMM systems should reduce medication error risk however the opposite effect can occur when systems do not interface.
- The high rate of transcription errors further demonstrates the need for medication reconciliation on transfer between ICU and general wards.
- Pharmacy services do not always allow for timely patient transfer medication reconciliation, even when systems exist to prioritise these patients.
- Despite increased collaboration between pharmacy and medical teams to reduce transcription errors, gaps in clinical services remain over weekends or afterhours highlighting the need to develop better interfaces to mitigate medication error risk.