Stop! Think! Look… Look Again, Before You Order

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Singapore Healthcare Management 2017

SingHealth
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Introduction

Emergency departments(EDs) are hectic, fast pace and busy places with multitude of tasks and orders need to be carried out urgently daily. The paths our patients have to take, from registration to triage, consultation, management and resuscitation or even observation, before disposition is complex and can be long. In the midst of these activities, drug orders and other tests or medications are utilized frequently. Staff may have to multitask to complete all their responsibilities and orders. This may make them lose focus and concentration, especially during peak attendance times and busy hours. Due to the inability to focus or be able to practice consciously, errors can inadvertently, happen. We constantly monitor the number of errors and near misses that happen in the ED. Each person involved in these incidents is counselled, interviewed and reminded on the importance of patient safety and human factors control to prevent errors from reoccurring. Intervention steps were implemented and we continue to monitor these rates thus, the objectives of this paper is to enhance a more conscious mode of practice.

Problem

1. To study the root causations of drug-related errors in the Dept. of Emergency Medicine(DEM)
2. To reduce the number of drug-related errors in the DEM

Methodology

1. To review the statistics of all drug-related reported on the Risk Management System (RMS) for DEM.
2. The Risk Reduction Review and Safety (R3S) committee conducted case by case analysis and interviewed the staff involved in theses incidents.
3. Incidents of near misses as well as actual incidents that reached patients were included.
4. A review of the steps involved in ordering drugs, checking and delivering/administering them to patients (Annex 1).
5. Steps with the potential for errors/lapses to occur were highlighted whether these were human, system or environmental factors.
6. Execution of intervention (Annex 2).
7. Final review of incidents related to drugs errors once again.

Results

Review of drug-related errors of near misses and actual errors reached patients	Year 2014	Year 2015	Year 2016 (till end August)
Near misses (did not reach patients)	47	17	5
Drug-related errors	11	10	4 (2 caused by pharmacy/non DEM staff)
Total	58	27	9 (including pharmacy incidents)

Conclusion

Proactive, multi-faceted interventions can help reduce drug related errors in a busy DEM. The fact that work processes need to be counter-checked with the use of two personnel and two identifiers managed to pick up near-misses and prevent the errors from happening due to vigilance of staff involved. Appointing dedicated safety and quality champions is a synergistic action as well.

Annex 1: Workflow in Prescribing and administering Drugs

Assessment of patient by doctor

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Doctor order medication

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Nurse reviews Task List/ Interprets orders

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Nurse Execution of Orders

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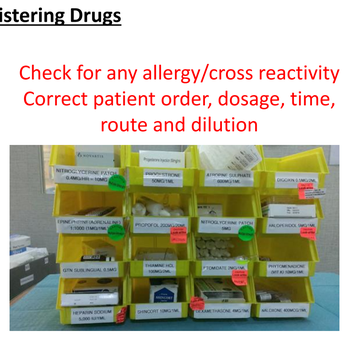
Administration of Medication to Patient

Check for any allergy/cross reactivity
Correct patient order, dosage, time, route and dilution



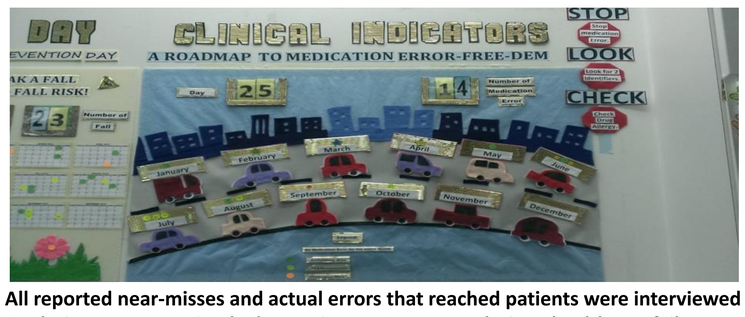
Good, clear, concise communication
Question/clarify if any uncertainties

Correct reading/interpretation
Prepare correct drug appropriately

Check correct patient using two identifiers
Counter check allergies at bedside with patient/next of kin
Review drug orders
Explain to patient about the delivery

Annex 2: List of interventions commenced in 2015

1. **Frequent reminders at all weekly teaching sessions and mortality and morbidity rounds. Nurses had the topic covered under in-house teaching sessions (covering various aspects of safety concerns in the department).**
2. **Regular reminders of the importance of good, clear and concise communication on orders and to question if there are any doubts.**
3. **Explanation and sharing of safety culture, an open culture and the need for reporting on the RMS.**
4. **With the formation of R3S, safety champions helped by being safety advocates, helping to remind staff on the ground, counsel those affected by 'near-misses and errors' and look out for issues/situations requiring improvement.**
5. **Sharing at nurses roll call and those who managed to pick up near-misses will given recognition/incentives.**



6. **All reported near-misses and actual errors that reached patients were interviewed personally by the director of quality, to sort up the root causation. Analysis was appropriately done using root cause analysis or healthcare failure mode identification. Staff who caused frequent errors were highlighted and had very frequent and regular meet-up with the director.**
7. **Reminders which were visually obvious at all computer terminals and cubicles in the ED itself. These were large and hard to miss so as for strategically act as memory jerk for all who order medication.**
8. **The upgraded computer software system has enhanced features for ordering medications that prompt users of patients allergy status which prevent any orders of medication that patients are allergy to or have cross-reactivity.**