

How to action the data – what are the key learnings and reports that improve safety and workflow

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DERs in HHFT

- Used since 2009
- Annual update and reports
- Used for 80% of infusions
- Each clinical area has its own dataset
- Critical care has the highest proportion of use
- HHFT employ an infusion nurse who is responsible for the upkeep of the dataset
- Each clinical pharmacist is responsible for their own dataset update
- Sign off from the Drugs and Therapeutics Committee

What do the reports tell us?

- Annual report
- Displays how many infusions were started within profile and what they were
- Can set report to give alerts for hard limit breaches or soft limit breaches
- Can determine what was carried out on the pump before and after the alert

Error Prevention

- KCl 40mmol/40ml selected from library, volume to be infused set to 20ml.
- Commenced at 20ml/hr (default)
- 25 secs later attempt made to titrate rate to 610ml/hr (which would have administered 20mmol potassium in 10mins), this was prevented by DERS.
- User returned to rate default after the pump alarmed
- Other significant errors have included propofol and amiodarone being run at 10x infusion rate prescribed
- The system can show if user has exited DERs and started infusion

Scrutinising the data

- Each clinical matron, pharmacist and ward team are sent the report for their speciality
- Important to understand not all alerts are errors
- Data can be manipulated to identify alerts
 - Times of day
 - Weekday/weekend/shift specific
 - Is the drug profile correct?
- Redundant drugs are identified

Scrutinising the data

- Within Critical Care data is presented at ops meeting
- Discuss potential changes or anything they would like to add or remove
- Any issues with any of the drug profiles
- Are there any common errors or themes occurring?
- Any new drugs coming out that we need to add

Improvements to patient safety

- Following scrutiny of 2017 data DERs prevented 1 error for every 183 infusions
- DERs acts as an extra check for the most high risk infusions
- Acts as a safety net and calculation double check
- Drug database can be tailored for individual speciality
- Can help identify training needs if particular drugs alert more frequently than others

Limitations?

- No system is without limitations
- Not updated regularly
 - Not real time
 - Have to wait for new drugs to go on profile
- Labour intensive to build the drug library
- Training for new nursing staff and pharmacists

Summary

To date nearly 3000 potential infusion errors have been prevented at HHFT. DERS is a useful tool to reduce infusion errors and has been proven to limit significant drug errors.

THANK YOU FOR YOUR TIME

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