

Improving Storage and Distribution within Emergency Trolleys

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Background and Aim

- A crash cart or code cart is a set of drawers and shelves on wheels used in hospitals for transportation and dispensing of emergency medication and equipment.
- Our project suggests that organisation, distribution and packaging of the equipment within the Crash trolleys are system factors which may contribute to errors and related patient harms.
- The principal aim of this project is to minimise the time of finding the right equipment in the Crash trolleys, achieved by introducing a better organised system.

Methods

Identifying risk factors related to organisation, storage and distribution



Improving visibility and accessibility of equipment



Testing of new product - Online survey and Case study



Before

Outcome

After



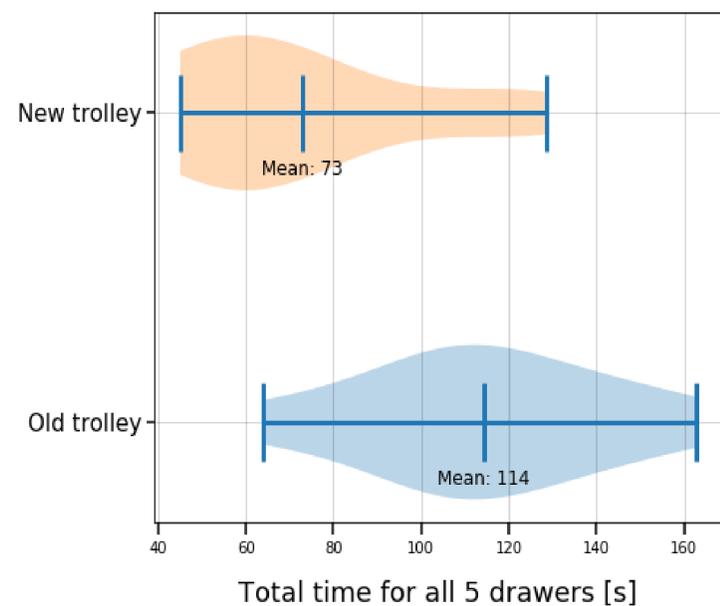
Outcome of the online survey (n=14)

Do you think that the contents are more visible and easily accessible?	Do you think that we managed to reduce time to find equipment?	Would you recommend setting up the remaining trolleys on the unit?
Yes 91%	Yes 100%	Yes 100%
No 9%	No 0%	No 0%

Case study

A simulation has been performed with one of the old and the newly equipped trolleys to find out whether our target - to minimise the time of finding the equipment within the crash trolleys - has been reached.

5 participants started on the old layout and 5 on the new layout to minimise the effect of improvement with practice.



Conclusion

Following the case study, our findings were that the time of finding equipment within the emergency trolleys have been reduced.

Mean : Old trolley = 114 s New trolley = 73 s

Participants of this case study had to pick out 3 items from each of the 5 drawers (3x5=15 items in total) as quick as they could, and the duration of this has been timed. The above violin plot illustrates the distribution of the measured total times, where the thickness is proportional to the frequency of the measured times.

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