

EMERGENCY TROLLEYS: AVAILABLE AND MAINTAINED, BUT ARE THEIR LOCATIONS KNOWN? – CLOSING THE LOOP

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Abstract

Emergency trolleys are developed and placed in strategic locations to improve the efficiency of the medical teams' response to emergencies. In order to close the loop on a previous audit, conducted a year earlier, a second survey was performed to assess the team of Anaesthetists' knowledge on the presence and location of those trolleys at the Victoria Ambulatory Care Hospital in Glasgow, Scotland. The results highlighted a considerable deficiency in the knowledge of those trolleys' locations, in both surveys. We suggest that similar surveys should be conducted as part of regular audits in all units and should include all staff involved in such emergencies. We also propose new approaches to tackle the problem and help improve the staff knowledge for quick and easy access; thus avoiding delays in critical care management.

Keywords: Emergency trolleys, difficult airway trolley, cardiac resuscitation trolley

Introduction

There are a number of emergency trolleys put together for easy access of specialist equipment in case of emergencies.¹ The trolleys are developed through national guidelines and local multidisciplinary team discussions. They have named individuals and a clear schedule that ensures they are maintained. Most medical units regularly audit those practices.² The location of those trolleys has to be known by the teams using it. We conducted a second survey to check the change – over the previous year – in percentage of Anaesthetists who know about the emergency trolleys and their locations. The study was performed in the Ambulatory Care Hospital (ACH) at the Glasgow Victoria Infirmary. The doctors surveyed included Anaesthetist Consultants, Senior and Junior Trainees – all in the Anaesthetics department.

Objectives

The study objectives were to determine the percentage of Anaesthetists who know about the different trolleys at the ACH, as well as their exact locations. A similar survey was previously conducted a year ago and this was meant to close the loop on the previous results and monitor the change in feedback throughout the past year. Anaesthetists were

subcategorized by level of training; to establish the variation in different levels’ responses to the questionnaire.

Methods

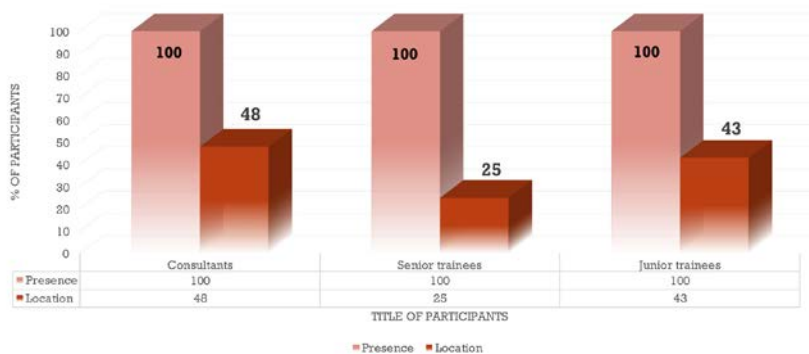
A similar paper questionnaire was developed and distributed among the ACH Anaesthetists. Their responses were recorded, transferred to an electronic spreadsheet and analyzed.

The emergency trolleys in the ACH are the Difficult Airway trolley, the Cardiac Resuscitation trolley, the Malignant Hyperpyrexia trolley, the Major Hemorrhage trolley and the Snatch Box (containing 2 bags of O-negative blood).

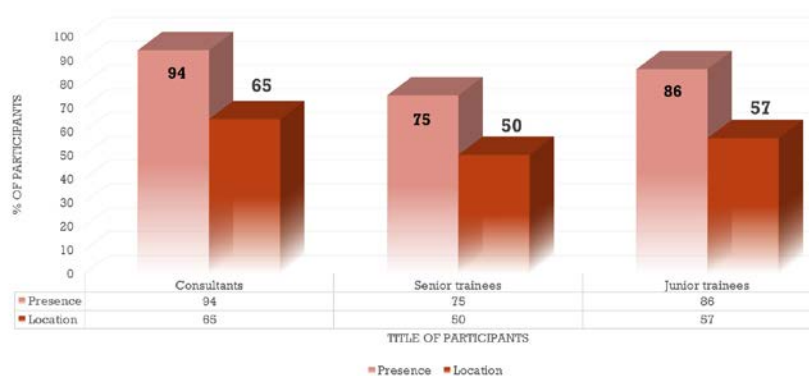
Results

The total number of participants over a period of 4 days was 42 Anaesthetists - between consultants, senior and junior trainees - as opposed to a total of 31 last year. This was divided as 31 Consultants, 4 Senior and 7 Junior Trainees. As regards the overall knowledge of the presence of the emergency trolleys, all 3 groups (consultants, senior and junior trainees) scored similarly at 83%, 70% and 71% respectively. As regards the overall knowledge of the location of the trolleys, the three categories scored almost equally poor at 40% for senior trainees and 46% of both consultants and junior trainees. The knowledge of the presence of the different types of trolleys varied. The difficult airway trolley scored the highest. All doctors knew of the presence of that trolley. The location of the trolley, however, was not as well known. As for the snatch box’s location, it scored very poorly with only 48% of consultants aware of its presence and only 13% knowing its exact location. The following graph charts illustrate the variability in results of answers to different questions, different trolleys and different levels of training.

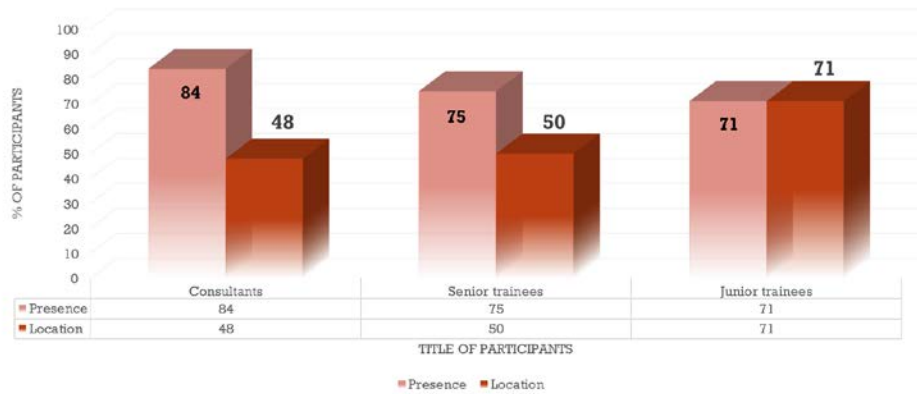
Difficult airway trolley



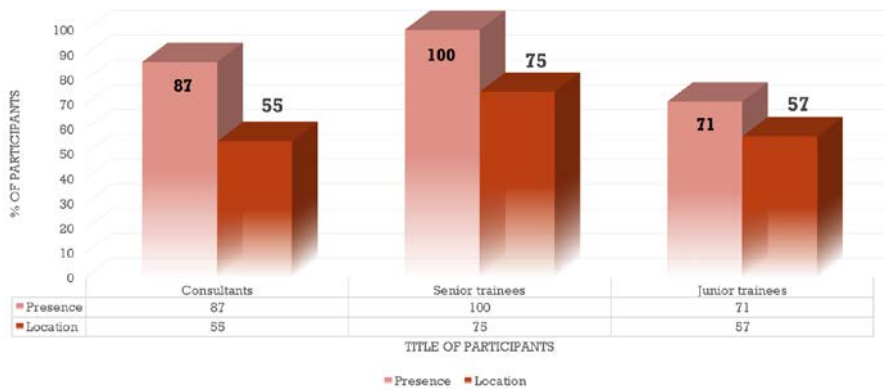
Cardiac resuscitation trolley



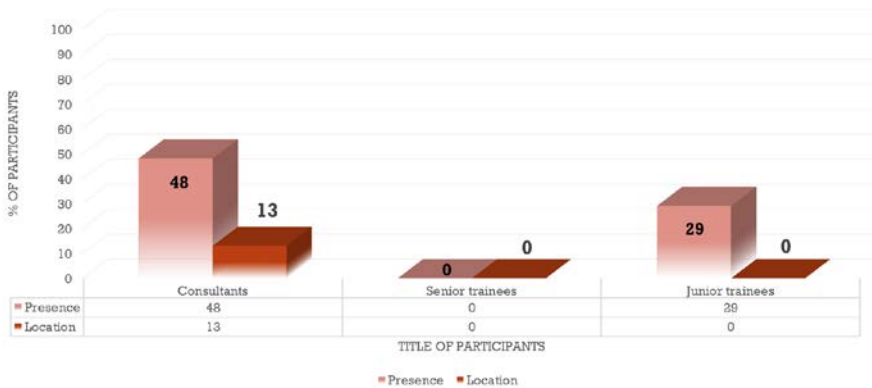
Malignant hyperpyrexia trolley



Major hemorrhage trolley



Snatch box



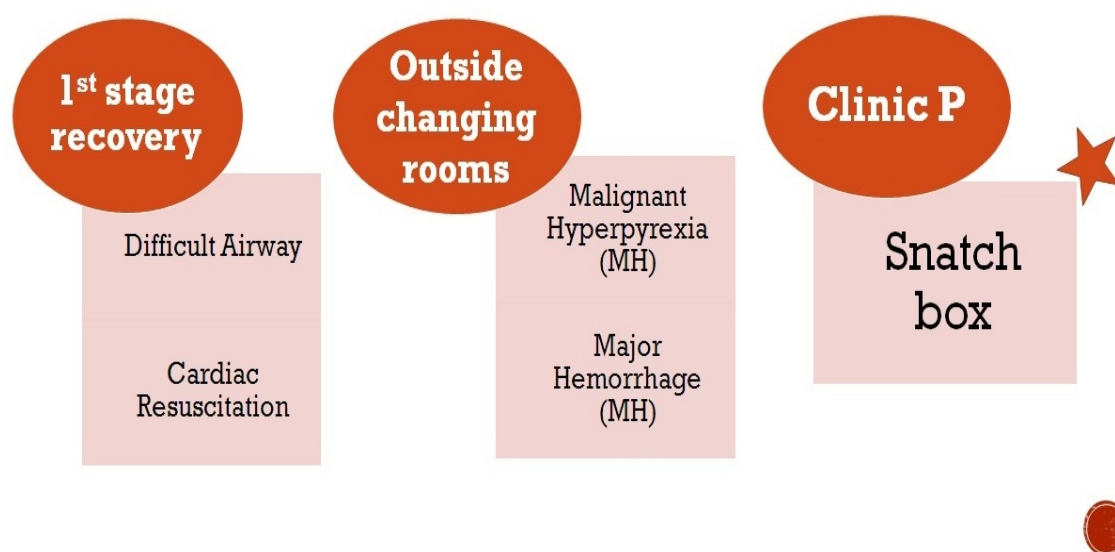
Discussion

The emergency trolleys were developed to maximize the efficiency in critical situations when seconds could make a difference for the patients’ survival. The trolleys are routinely checked and, if used, are restocked. This process is audited regularly. No such emphasis is placed on ensuring that all staff knows the location of these trolleys. Our survey shows clearly that a significant number of both permanent staff and trainees are not aware of the correct location of the trolleys. In some instances, the doctors were not aware of its presence at all. An alarming finding is that only 2 participants know about all trolleys and their exact locations.

Another concern is that the difficult airway trolley is the only one whom all participants know exists. The reason for the poor knowledge of location of the various trolleys may be that the Anaesthetist is unlikely to have to fetch the relevant trolley as they

will be dealing with the patient and it will be an anaesthetic assistant or nurse who will be asked to fetch the trolley. The Anaesthetist still should be aware of the location though. We suggest various ways to increase awareness of the presence and location of the trolleys. This includes signs and arrows highlighting their location in the hospital. We also advise a greater degree of involvement of the trainees and consultants in updating and restocking the trolleys. Local study days and emergency drills should include the location of the trolleys and not just the clinical aspect of saving the patients. We have put together an eye friendly memory aid that was distributed among different places in the hospital to help improve the knowledge of all staff members about emergency trolleys and their exact locations. This is demonstrated in the figure below.

EMERGENCY/RESUSCITATION TROLLEY LOCATIONS



Conclusion

Our survey identifies an important and dangerous risk factor in the management of emergencies. There is no significant change in feedback from last year. The larger sample size could be an additional factor to that. Most participants did recall answering the same questions, but still could not remember exact locations. We strongly recommend the review of induction and orientation programs – including the ones for locum Anaesthetists – to be with more focus on emergency trolleys. We advocate the expansion of the survey to include other doctors from different disciplines as well as nursing and paramedical staff who may be called upon to retrieve those trolleys in emergencies.

References:

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