HOW RESIDENTS MET THEIR TRAINING
A SURVEY OF RESIDENTS’ PERCEPTION OF MEDICAL EMERGENCY TEAM AND ITS CONTRIBUTION TO THEIR TRAINING IN ACUTE MEDICINE

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Background

Medical Emergency Teams (MET) exists in many hospitals in developed countries as part of rapid response systems. It has been shown in meta-analysis that rapid response systems are associated with reduced rates of cardiorespiratory arrests outside of intensive care units and reduced mortality.1 In addition to rescuing inpatients with urgent medical needs, there is value in training residents in rapid assessment, diagnosis and treatment of inpatients. However, literature regarding residents’ experience with MET is limited. A study done by Butler showed that residents agreed that working with MET is a valuable educational experience.2

With a focus on Singapore, we explored residents’ perception of MET in a single centre, Changi General Hospital (CGH). The residency programme in Singapore is a post-graduate training programme. Majority of our residents graduated with an under-graduate medical degree and proceeded on to a post-graduate residency training programme. The residents whom we surveyed in this study are either in the Internal Medicine junior residency, Respiratory & Critical Care senior residency or Advanced Internal Medicine senior residency. We do not have a dedicated critical care residency programme. Therefore, our survey looks at a heterogeneous group of trainees in our local context who are at different stages in their training. It gave us insight on the perspective of trainees at various post graduate years and the differences in opinion.

We adopted the Australian MET system in our hospital since 2009, where physician-led MET team is favoured.3 It is a maturing rapid response system with about 17 activations per 1000 discharges. This is different from the United States where MET is nurse-led or respiratory-therapist led.4 Our MET activation criteria is summarized in the poster (figure 1) and is similar to other MET activation criteria.4

Methodology

Junior residents and senior residents were exposed to MET during their rotation to CGH medical intensive care unit. Depending on their seniority, they are either the team leader or team member. A single survey in 2016 was conducted amongst 106 individuals who have been posted to MET over a period of 2013 – 2015. Survey questions were based on 6 core competencies of the residency programme. These were patient care and procedural skills, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism and systems-based practice. The questions are shown in the figure below (figure 2). Responders were asked to rate their perceptions from 1 to 5 on a likert scale with 1 being “strongly disagree” and 5 “strongly agree”. We used non-parametric Mann-Whitney test and Kruskal-Wallis test for statistical significance.

Results

There were 66 respondents; response rate was 42.3%. Out of the respondents, 36.4% (24) were junior residents and 63.6% (42) were registrars or senior residents in Respiratory Medicine or Advanced Internal Medicine. Residents who are in postgraduate years 1-3 feel less strongly that no formal teaching or assessment is needed (median=2.2). Residents in postgraduate years 4-6 (median=3.0) and more than 7 years (median=3.0) showed preference towards formal teaching or formal assessment (p=0.04) (Figure 3). More than 90% of residents agree that MET contributed positively to patient care and their training; made resuscitation of patients safer and more efficient; and agreed that MET made resuscitation of patients more time-consuming or cumbersome. (Figure 4)

Conclusion

MET is a valuable experience for most senior and junior residents as they perceive that it contributed positively to their training and management of patients with urgent medical needs. Interestingly, residents in later post graduate years 4 and above tended towards formal teaching or formal assessment. This may reflect the level of training as most residents in this group are senior residents who are team leaders in a MET activation, thus make executive decisions. Whilst those in the early postgraduate years make fewer decisions as team members.

With the findings in mind, we aim to provide this structured education for MET amongst residents posted to our hospital.

References


Figure 1

Figure 2

Figure 3

Figure 4