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Medical Emergency Teams (METS): Let Us be Careful

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Where Will We Find the Doctors to Fill These Posts?

Professor Vincent presents his concerns over MET-type systems and proposes alternative solutions.

Background: Agreed

The development of medical emergency teams (METs) or "outreach teams" started with the observation that patients on the general floor often deteriorate in the hours preceding cardiorespiratory arrest or emergency admission to the intensive care unit (ICU). Medical care on the general ward is often suboptimal, with low staffing levels per patient, and staff who are often less than optimally prepared. In this situation, healthcare professionals often under-evaluate a patient's downward progression towards a catastrophe, and earlier intervention could prevent such a patient from needing urgent ICU admission. In the future, ICU doctors will more often leave their sector to intervene on the general floor of the hospital. This is why the North-Americans wish to separate critical care medicine – the specialty dealing with the critically ill patient – and the ICU – the area of the hospital where intensive care is provided.

Some studies have shown that METs can indeed improve quality of care. For example, Bellomo et al. (2004) have shown that the introduction of a MET team can result in fewer adverse outcomes including respiratory failure, stroke, severe sepsis and acute renal failure, can decrease the number of emergency ICU admissions and postoperative deaths, and can result in shorter hospital stays. Hence, the evidence is there that METs may represent a valuable option in some settings.

Benefit: Controversial

The risks with METs are that the medical doctors who are responsible for the general ward may no longer initiate treatment of the acute condition or even have the necessary expertise to do so. The reaction to pass responsibility onto others may ultimately decrease the level of care provided by physicians on the floor as they will become increasingly less familiar with the management of such patients.

Another concern is that if the MET includes a critical care physician, this needs to be considered in the shortfall of critical care physicians forecast for the future. The Committee on Manpower for Pulmonary and Critical Care Society's (COMPACCS) study (Angus et al. 2000) indicated that the demand for critical care physicians will increase substantially in the next decades whereas supply will increase only slightly; thus, we must be prepared to face a shortage of well-trained critical care physicians.

Indeed, current plans include regionalization of ICUs and telemedicine approaches to cope with inadequate medical coverage of ICUs, rather than placing already limited staff in other positions.

One could argue that by providing an earlier intervention the need for a prolonged ICU stay may be prevented and the MET approach may therefore be cost effective. However, this is far from established. ICU beds are at a premium and someone else will rapidly occupy the ICU bed that would have been freed by the MET managed patient, so that the workload will increase on the floor, but not decrease in the ICU. Caring for the 'ICU patient' on the general floor will require considerable input from the intensivist in terms of patient management, in providing detailed explanations to the healthcare staff who may be unfamiliar with ICU protocols and treatments, and in discussions with the family, etc.

Again, where will we find the doctors to fill these posts?

Alternatives to the MET

If METs are not the answer, what alternatives are there? One alternative would be to provide better-qualified general floor physicians. For this strategy to be effective, three key elements would be needed:

1. Appropriate and ongoing training.

2. Audit in cases of suboptimal management with appropriate and constructive feedback.

3. Availability of critical care physicians at all times for advice.

Conclusion

There is no doubt that most life-threatening events in hospital are preceded by a period of deterioration during which aggressive intervention can improve outcomes. However, easy access to a MET may bypass the intervention of a general floor resident and ultimately decrease the quality of care provided in the hospital. To improve the care provided by non-ICU doctors in the hospital, I would rather argue in favour of providing better and ongoing training to general floor physicians, introducing constructive audit of patients admitted to the ICU from the floor, and ensuring easy access to senior intensivists for advice.

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