To reach out or not: is critical care outreach as valuable as it seems?

Critical care outreach services are provided by many intensive care departments in this country and abroad. This service is typically formed of experienced intensive care nursing staff and may also include medical staff on a permanent or as required basis.

Critical care outreach services are valuable

Critical care outreach services are popular services. They offer a reassuring presence on the wards offering skilled, experienced and popular support to ward staff (Athifa et al, 2011). At the same time they provide a link between the intensive care team and patients outside critical care. As a result, critical care outreach services have become one of the key components of health-care delivery in the modern era.

Critical care outreach services are recommended by the National Institute for Health and Clinical Excellence (2007) and the Intensive Care Society as a tool for reducing intensive care admissions and length of stay, improving patient outcomes through timely and appropriate admission and the training of staff on the wards.

Critical care outreach services are not valuable

A number of subjective concerns have been expressed regarding critical care outreach services, notably that medical and nursing staff outside the intensive care unit come to depend upon the service too heavily, resulting in a diminution of the skill and experience base. A demonstrable improvement in outcome associated with critical care outreach services would obviate these concerns.

In fact, the evidence for this proposition does not give unchallenged credence to it. The largest randomized study of the impact of the introduction of an intensive care unit outreach service was unable to show a mortality benefit (Hillman et al, 2005). Other studies have mixed the simultaneous introduction of early warning scores and critical care outreach services, making it impossible to determine the benefit of outreach in isolation, and a Cochrane collaboration review could not recommend the use of critical care outreach services on their own (McGaughey et al, 2007).

If a mortality benefit is hard to prove, a case could be made that by preventing or reducing the length of stay in intensive care unit without affecting outcome, critical care outreach services would provide a health economic benefit. Unfortunately, even in large methodologically robust studies the number of admissions from the ward to intensive care unit does not appear to decrease (Gao et al, 2007) and the only universally positive finding in a study of outreach services was an increased length of stay in intensive care unit patients seen by critical care outreach services (Harrison et al, 2010).

The evidence base is further muddied by the inclusion in the literature of the work of medical emergency teams which many hospitals have in addition to critical care outreach services (Hillman et al, 2005). These contain a mix of medical and nursing staff who respond to emergency situations. The efficacy of these teams may also be challenged but the specific issue of the benefit of critical care outreach services in isolation remains unanswered.

Conclusions

Critical care outreach is a service that is widely used in secondary and tertiary centres throughout the UK. It is logically sound and popular with both medical and nursing staff inside and outside the intensive care unit. For critical care outreach services, like so many critical care interventions, benefit is hard to prove. Do we then accept it as having a value which is difficult to demonstrate in traditional studies or do we strive to develop an evidence base that will definitely prove that critical care outreach is a service that has demonstrable value to patients and clinicians alike? BJHM

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