College of Intensive Care Medicine
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MINIMUM STANDARDS FOR INTENSIVE CARE UNIT BASED RAPID RESPONSE SYSTEMS

INTRODUCTION

This document outlines the minimum standards relating to ICU based RRS (Rapid Response System/s). A RRS describes a hospital wide structure that provides a safety net for patients who may become critically ill, and who have a mismatch between their clinical needs and the available resources to manage them in their current location. The specialty of intensive care medicine has significantly driven the development and implementation of RRS in many parts of the world and has a clear role in RRS service delivery and governance. This document outlines the minimum standards for delivery and governance of an ICU based RRS. These minimum standards refer to elements of the ANZICS and CICM *Joint Position Statement on Rapid Response Systems in Australia and New Zealand and the Roles of Intensive Care.*

DEFINITION

An ICU based RRS is defined as an RRS in which ICU staff lead the Rapid Response Team (RRT). The RRT is activated by the system's calling criteria designed to identify deteriorating patients.

REQUIREMENTS FOR ICU BASED RRS

Each institution is responsible for developing its own system of identification and response for deteriorating patients in accordance with Hospital Accreditation Standards. Clinically, RRS have two major components: a defined process for identification of patient deterioration, and a system for triggering a specifically tasked team response. Additional components include the RRT administrative limb (which is often overseen by the ICU), and a quality improvement limb.

Depending upon the designated level, function, size and case mix of the hospital and/or region that it serves, the most appropriate RRS that can be provided to deteriorating patients will have different operational requirements. In hospitals with an ICU, the immediate availability of an ICU team to attend and initiate appropriate life supportive measures on the ward represents the highest level of patient safety attainable. CICM acknowledges that other institution specific system arrangements may also provide a level of patient safety.

The requirements in this document are considered the minimum standards to provide a safe service where the RRT is led by the ICU. Larger hospitals will require more resources depending predominantly on the number and distribution of RRS calls experienced underscoring the need for robust data collection and reporting systems.

1. STAFFING

Medical Staff

The College's Professional Document *IC-1 Minimum Standards for Intensive Care Units* states that duties outside of the ICU must be staffed by personnel additional to those required for managing patients within the ICU, and must not compromise care of patients within the ICU. Accordingly, attendance of ICU medical staff to RRS calls must not compromise care of the patients within ICU.

The ICU staff should be immediately available to attend RRT activations. However, the appropriateness of the system's capacity to attend simultaneous activations is the institution's responsibility to determine. Where a team is immediately available, the institution should define minimum standards for response times appropriate to that institution. A response time of less than ten minutes would be typically expected from an ICU team in a large hospital.

Once RRS calls reach a volume of more than 2000 per annum average a separate ICU medical officer and nurse to the ICU treating team should be rostered for the RRT.

ICU trainees must not be rostered for RRT shifts for more than 25% of their clinical time. At least 75% of their clinical time must be spent managing patients within the ICU.

The RRT should be overseen by an intensive care specialist who is immediately available for advice to the ICU medical officer and to attend to the RRS call where specialist expertise is required. In large tertiary ICUs with RRS calls of >2000 per annum a separate specialist roster for RRS oversight is recommended.

The 'admitting' team most familiar with the patient and who holds primary responsibility for the patient should have a designated medical officer who is immediately contactable for notification of the Team activation and involvement in discussions with the ICU RRT members regarding appropriate patient management. Ideally, the activation system should also alert these doctors about the occurrence of the call in their patient (e.g. announcement of ward and admitting team via overhead speakers) so that they can attend the call in person.

Nursing Staff

The ICU based RRS should have at least one experienced ICU nurse available to attend calls with the ICU medical officer. Their attendance in RRS calls must not compromise nursing care of patients within the ICU.

2. EDUCATIONAL REQUIREMENTS

The hospital should have a documented educational program for RRT members. The required skill set for ICU staff should focus on knowledge, technical and non-technical skills and leadership skills should be taught, ideally in the context of immersive team training. Success of the RRS requires clinical teams from the RRS and the primary team to work in partnership to ensure timely review and continuity of clinical care. Such an approach has the greatest potential to enhance the skill set of members of each team and ensures that the RRS does not mask organisational problems in the patient's management. In hospitals admitting paediatric and obstetric patients, RRT members should undergo specific education in the management of paediatric, neonatal and obstetric emergencies.

Education should include the ward based staff initiating RRS calls to ensure the afferent and efferent limbs of the RRS are effective and use resources efficiently.

3. OPERATIONAL REQUIREMENTS

An ICU Specialist should be nominated as the RRS Clinical Lead providing clinical governance for the RRS and representing the RRS on the relevant hospital committee (e.g. clinical quality, safety and governance committee). This clinician should be supported by hospital administrative staff in the quality improvement limb of the RRS.

The RRS clinical lead should meet regularly with nurses and doctors to ensure that the RRT is running effectively and to resolve problems with the responding team.

Effective governance of an ICU based RRS must have delegated responsibility from the Hospital Executive to ensure the system is adequately resourced with timely and data driven evaluation of performance that aims to improve the response and outcomes for deteriorating patients.
A prospective data collection and evaluation process must be in place for the RRS.

An ICU based RRS must meet any national criteria set out for such systems (e.g. Australian Commission on Safety and Quality in Health Care's *National Consensus Statement: Essential Elements for Recognising and Responding to Clinical Deterioration*, 2014.)

The criteria for calling the RRT should include the suggested parameters in the CICM and ANZICS *Joint Position Statement on Rapid Response Systems in Australia and New Zealand and the Roles of Intensive Care* and meet the national standards for responding to deteriorating patients.

4. EQUIPMENT

The type and quantity of equipment and medications will vary with the type, size and function of the RRS and must be appropriate to the workload of the RRT as judged by contemporary standards. There must be a regular system in place for replacement and checking the safety of equipment.

Protocols and in-service training for medical and nursing staff need to be available for the use of all equipment, including steps to be taken in the event of malfunction.

Suggested equipment and medication lists for RRT can be found in the ANZICS and CICM *Joint Position Statement on Rapid Response Systems in Australia and New Zealand and the Roles of Intensive Care*.

Equipment for Monitoring for Patient Transports - Portable equipment for mechanical ventilation and monitoring of ventilation, respiratory and circulatory status must be available for RRS patient transports.

These guidelines should be interpreted in conjunction with the following professional documents of the College of Intensive Care Medicine (found on the College website):

IC-1 *Minimum Standards for Intensive Care Units*

IC-2 *Intensive Care Specialist Practice in Hospitals Accredited for Training in Intensive Care Medicine*

IC-3 *Guidelines for Intensive Care Units seeking Accreditation for Training in Intensive Care Medicine*

IC-4 *The Supervision of Vocational Trainees in Intensive Care Medicine*

*IC-25 (*ANZICS and CICM) *Joint Position Statement on Rapid Response Systems in Australia and New Zealand and the Roles of Intensive Care*

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