

**SERVICE STANDARD 13****Critical Care Services – Generic****PREAMBLE**

Critical Care Services are specialised care units within a hospital designated to provide a higher level of care than a general ward. The scope of the services provided by the unit should be guided by the professional qualifications and experience of the clinicians and are expected to provide appropriate facilities, equipment and staff to safely and effectively care for those in need of the service.

The units that fall within this category are:

1. Intensive Care Units
2. High Dependency Units
3. Coronary Care Units
4. Burns Care Unit

Intensive Care Units provide comprehensive care for a wide range of complex, progressive, and life-threatening or potentially life-threatening medical, surgical, and traumatic disorders in critically ill patients. Intensive care units may vary in the levels of care that are provided (depending on personnel and their level of expertise, physical characteristics, and facilities) and they may differ in the types of specialised care that are provided (e.g. paediatric, neonatal, cardiothoracic surgery, neurosurgery, transplantation or nephrology).

High Dependency Units provide level of care intermediate between intensive care and general ward care. They are appropriate for care of patients with single organ failure (but excluding those requiring invasive mechanical ventilation), those with high risk of developing organ failure or those requiring more intense observation, monitoring or nursing than can be provided on a general ward.

Coronary Care Units provide close monitoring and high dependency care in patients with acute cardiac problems.

Burns Care Units provide specialised, high dependency care in patients with serious burns injuries.

**Level of Intensive Care Units**

Each unit should declare the level of care it provides with respect to the delivery of critical care and this should be consistent with the hospital's overall mission.

For the purpose of accreditation standards, Intensive Care Units are categorised into 3 levels as outlined below. A unit that provides different levels of care shall be assessed according to the highest level. Coronary care and burn care units shall be assessed as high dependency units.

**Level 1 -** This is equivalent to the 'high dependency unit'. The unit shall be able to provide continuous physiologic monitoring of critically ill patients. It shall be capable of providing stabilisation and basic intensive care e.g. oxygen therapy and inotropic support. Short-term invasive mechanical ventilation may be provided. Transfer agreements must be in place for transport of the critically ill patient to a more appropriate level facility when indicated.

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- Level 2 -** This unit shall be capable of delivering a high quality of care to critically ill patients including the provision of invasive mechanical ventilation. Transfer agreements must be negotiated for complicated patients or those requiring special services available only at level 3 units.
- Level 3 -** This unit shall be able to provide care to complicated, critically ill patients for an indefinite period. It shall have sophisticated equipment for multiple organ support provided by health care professionals trained in the care of the critically ill.

## **TOPIC 13.1: ORGANISATION AND MANAGEMENT**

### **STANDARD 13.1.1**

The Critical Care Services shall be organised and administered to provide safe, efficient, and effective critical care services.

#### **CRITERIA FOR COMPLIANCE:**

- 13.1.1.1 There are documented purposes which may be termed Vision and Mission statements, Goals and Objectives that suit the scope of the Critical Care Services. When compiling the purposes, consideration shall be given to the following:
- a) They are what the services want to achieve.
  - b) They support and contribute to the goals of the Facility.
  - c) They are written and consistent with professional standards, guidelines and relevant legislation.
  - d) They are monitored, reviewed and revised as required accordingly.
- 13.1.1.2 There is an organisation chart which:
- a) provides a clear representation of the structure, function and reporting relationships of the services;
  - b) is accessible to all staff;
  - c) includes off-site services if applicable;
  - d) is revised when there is a major change in:
    - i) organisation;
    - ii) functions;
    - iii) reporting relationships;
    - iv) goals and objectives;
    - v) staffing patterns

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- 13.1.1.3 There are written and dated specific job descriptions for all staff that include:
- a) qualifications, training, experience and certifications required for the position;
  - b) lines of authority;
  - c) accountability, functions and responsibilities;
  - d) review when necessary and when there is a major change in:
    - i) nature and scope of work;
    - ii) duties and responsibilities;
    - iii) general and specific accountabilities;
    - iv) qualifications required;
    - v) staffing patterns;
    - vi) Statutory Regulations.
- 13.1.1.4 Regular staff meetings are held to discuss issues and matters pertaining to the operations of the services. Minutes are kept and accessible to all staff.
- 13.1.1.5 Personnel records of training, leave etc are maintained for every staff.
- 13.1.1.6 The Head of each Critical Care Service is involved in the planning, management, and justification of the budget and resource utilisation of the services.
- 13.1.1.7 The Head of a CCS is involved in the appointment and/OR assignment of the staff.
- 13.1.1.8 The Head of each CCS shall ensure that the staff of the respective CCS complete incident reports and are discussed by the department with learning objectives and are forwarded to the Person In Charge (PIC) of the Facility.
- 13.1.1.9 Incidents reported monthly have had Root Cause Analysis done and action taken to prevent recurrence.
- 13.1.1.10 Appropriate statistics and records shall be maintained and used for managing the services and patient care purposes.

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**STANDARD 13.2: HUMAN RESOURCE DEVELOPMENT AND MANAGEMENT****STANDARD 13.2.1**

The Critical Care Services (CCS) are appropriately and adequately staffed and directed to achieve their goals and objectives.

**CRITERIA FOR COMPLIANCE:**

- 13.2.1.1 The direction and staffing of the services are provided by individuals qualified by education, training, experience and certification to meet the demands of the position and to achieve the objectives of the services.
- 13.2.1.2 The authority, responsibilities and accountabilities of the Head of Critical Care Services is clearly delineated and documented in a letter of appointment.
- 13.2.1.3 Sufficient numbers of qualified personnel and support staff are employed to enable the Critical Care Services to meet its documented purposes. The number and grades of staff required shall be based on accepted norms.
- 13.2.1.4 There is a structured orientation programme where new staff are briefed on their services, operational policies and relevant aspects of the Facility to prepare them for their roles and responsibilities.
- 13.2.1.5 Staff receive written evaluation of their performance at the completion of the probationary period and annually thereafter, or as defined by the Facility.
- 13.2.1.6 There is evidence of a staff development plan, which provides the knowledge and skills required for staff to maintain competency in their current positions as the demands on the positions evolve.
- 13.2.1.7 There are continuing education activities for staff to pursue professional interests and to prepare for current and future changes in practice. There is evidence that staff education and development needs have been appraised and identified.
- 13.2.1.8 There is evaluation of clinical staff in relation to specific specialised skills such as cardiopulmonary resuscitation (CPR, ACLS, BLS etc), neonatal resuscitation program (NRP), paediatric advanced life support (PALS) and a system of ongoing recertification.

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**TOPIC 13.3: POLICIES AND PROCEDURES****STANDARD 13.3.1**

There are written and dated policies and procedures for all the activities of the Critical Care Services. These policies and procedures reflect current standards of CCS practices, relevant regulations, requirements of statutory authorities, and the goals and objectives of the services.

**CRITERIA FOR COMPLIANCE:**

- 13.3.1.1 There are written policies and procedures for the services, and the policies and procedures are consistent with the overall policies of the Facility.
- 13.3.1.2 Policies and procedures are developed in collaboration with all staff, medical practitioners, Management, other internal and external service providers; and consistent with current international standards for critical care services.
- 13.3.1.3 Policies and procedures are reviewed at least once in three years and revised when required, signed and dated accordingly.
- 13.3.1.4 New and revised policies and procedures are communicated to all staff.
- 13.3.1.5 There is evidence of compliance with policies and procedures and evidence based guidelines.
- 13.3.1.6 Copies of relevant regulations and statutory requirements are available to staff.
- 13.3.1.7 Each discrete service has:
  - a) a Head of service with overall responsibility;
  - b) medical staff with appropriate training in intensive care monitoring and therapy;
  - c) specialist medical coverage available at all times;
  - d) provision of resident medical coverage of duties on a 24 hour basis;
  - e) resident medical staff with access to consultant support at all times.
  - f) a nurse manager with an accredited post-basic intensive care qualification and experience, and nursing staff with intensive care qualifications;
  - g) the expectation of staffing at a registered nurse to patient ratio appropriate to patient dependency needs;
  - h) a team approach to patient care (critical care team comprises of medical and nursing staff, pharmacist, physiotherapist, dietitian and social worker);

- i) support for postgraduate education for clinical staff.

13.3.1.8 Policies of each unit are appropriate to the Facility's scope of medical and surgical care.

13.3.1.9 A policy and procedure manual is kept up to date and is readily available to all staff. The manual shall include at least the following policies:

- a) functions and authority of the unit managers, howsoever named, with special emphasis on the working relationships that exist among the attending medical staff, the unit manager and/or other specialist critical care unit medical staff;
- b) specifications as to who may perform special procedures, under what circumstances and under what degree of supervision; special procedures in this context may include intubation, tracheotomy, insertion of central lines, or any other invasive procedures; other procedures that include all forms of medical intervention like ventilation, dialysis and other forms of life support;
- c) admission, discharge and referral;
- d) the use of special equipment and supplies and where they are located;
- e) the assignment of responsibility for preventive and corrective maintenance programme, including procedures to follow in the event of the breakdown of essential equipment;
- f) prevention and control of infection policies and procedures;
- g) clinical management protocol (enteral feeding, thromboprophylaxis, weaning from mechanical ventilation etc)
- h) drug administration policy;
- i) procedural policy e.g. central vein catheterisation;
- j) policies for visitors and traffic control;
- k) policies and procedures for organ donation;
- l) policies for withdrawal and withholding of life support for the critically ill;
- m) policy on mechanical ventilation outside ICU.

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**TOPIC 13.4: FACILITIES AND EQUIPMENT****STANDARD 13.4.1**

There are appropriate and adequate physical facilities and equipment for the efficient operations of the critical care services.

**CRITERIA FOR COMPLIANCE:**

- 13.4.1.1 The Facility shall be a discrete area preferably close to areas which have the greatest requirements for its services such as Emergency Department and operating theatres.
- 13.4.1.2 There are adequate space and equipment to enable staff to carry out their professional and administrative functions.
- 13.4.1.3 The immediate physical environment of the patient is as unobtrusive and as aesthetically pleasing as possible.
- 13.4.1.4 There must be adequate facilities for infection control in the unit, e.g. hand washing facilities.
- 13.4.1.5 There must be provision for isolation of certain categories of patients, e.g. those with airborne infectious diseases.
- 13.4.1.6 There are separate areas for the sanitation and storage of equipment.
- 13.4.1.7 There are facilities for patients, relatives, and staff; these should include quiet and private areas with beverage facilities, toilets, and a separate area for distressed relatives and access to a prayer room.
- 13.4.1.8 Whatever the design or purpose of the unit, enough space is provided around each bed to make it easily accessible for routine and emergency care of the patient, and also to accommodate bulky equipment which may be needed and comply with the relevant regulatory requirements.
- 13.4.1.9 The Facility shall have 24-hour access to onsite laboratory services.
- 13.4.1.10 The Facility shall have 24-hour access to imaging and other diagnostic facilities.
- 13.4.1.11 The Facility shall have support from all surgical, medical, allied health, and diagnostic specialities, together with appropriate clerical, scientific, and other support staff.
- 13.4.1.12 There is an adequate number of oxygen, compressed air, and suction facilities as well as properly grounded electrical outlets with duplicate or independent circuits available to every patient.
- 13.4.1.13 The bed is readily adjustable to various therapeutic positions, easily moved for transport. It has a locking mechanism for a secure stationary position, cot sides, and a removable headboard.

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- 13.4.1.14 The level of monitoring as well as intervention should be appropriate to the scope of services provided by the unit.
- 13.4.1.15 Facilities and equipment are appropriate to the unit and may include the following:
- a) uninterrupted power supply;
  - b) appropriate air conditioning and/or specialised airflow patterns which comply with regulatory requirements;
  - c) an alarm system for CCS personnel to summon additional staff in an emergency;
  - d) variable lighting systems provide at least a day and night mode;
  - e) alternate emergency lighting, gas and power sources or other appropriate mechanisms available to operate all life support systems including suction apparatus;
  - f) adequate supplies of medications and intravenous fluids available 24 hours a day.
- 13.4.1.16 All other emergency and life support equipment is readily accessible and functional.
- 13.4.1.17 There is documented evidence that equipment complies with relevant standards, e.g. those set by SIRIM Berhad.
- 13.4.1.18 Expert advice concerning the safe use of, and maintenance for all biomedical devices and electrical installations are readily available at all times. Documentation of safety testing is provided on a regular basis to the unit head.
- 13.4.1.19 There is evidence that the facilities and equipment are maintained in good working order and subject to ongoing planned preventive maintenance and calibration.
- 13.4.1.20 Where specialised equipment is used, there is evidence that only qualified and privileged staff, operate such equipment.

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**TOPIC 13.5: SAFETY AND QUALITY IMPROVEMENT ACTIVITIES****STANDARD 13.5.1**

The Head of Critical Care Services shall ensure the provision of high quality performance with staff involvement in the safety and quality improvement activities of the Facility.

**CRITERIA FOR COMPLIANCE:**

- 13.5.1.1 There are clearly assigned responsibilities for safety and quality improvement activities within the services.
- 13.5.1.2 There are procedures for formal audit and review of patient outcome.
- 13.5.1.3 There are planned and systematic safety and quality improvement activities for monitoring and evaluating the performance of the services including a plan for action and follow up to ensure that the action is effective in continually improving the quality of care.
- 13.5.1.4 There are safety and quality improvement activities in place which support the Facility's safety and quality improvement activities including tracking and trending of specific performance indicators which include but not limited to the following indicators:
- a) pressure ulcer
  - b) unplanned extubation
  - c) compliance to hand hygiene
  - d) ventilator associated pneumonia (ICU)
  - e) catheter related blood stream infection
- 13.5.1.5 Appropriate documentation of safety and quality improvement activities is kept and confidentiality of staff and patients is preserved.
- 13.5.1.6 There are safety and quality improvement activities that address staff safety.

**BACK TO STANDARDS REFERENCE**