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Levels of Adult Critical Care Second Edition

Consensus Statement

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Date of publication: March 2021
Date of review: March 2024

Levels of Adult Critical Care Second Edition

This document is a consensus statement which sets out to re-define 'Levels of Adult Critical Care' to reflect the modern delivery of critical care and the changing demands upon it.

Levels of Adult Critical Care Second Edition, as in the original guidance, describes the care a patient requires, not where they are receiving it, nor does it measure the actual care being delivered.

It does not recommend any changes in staffing ratios, until such time that appropriate critical care staffing tools and evidence base are available, and we support the continued research in this area.

It merges the pre-existing level 0 and level 1 into ward care. This frees up 'level 1' of critical care to represent the emerging Enhanced Care, with Level 2 and 3 remaining. Level 2 and 3 have subtle changes to reflect the current picture of critical care, in particular the addition of delirium.

Many of these changes may seem subtle, but they reflect current practice. These changes also signal a move towards a changing landscape with Intensive Care 2020 and Beyond[1] which considers our shared vision of the future of critical care, the development of Enhanced Care[2] and the ongoing staffing ratio research.

1. Background to 'Levels of Critical Care for Adult Patients' (2009)

In 2009, the Intensive Care Society (ICS) published 'Levels of Critical Care for Adult Patients'.[3] The document aimed to help identify those ward patients who may benefit from higher staffing ratios than were available on wards, immediate access to senior clinical decision-makers and organ support. It described varying levels of such care of hospitalised critically ill patients, and the interventions associated with each.

2. Changes to critical care since initial publication

Since 2009, the acuity of patients has changed significantly and there has been an escalating demand for critical care beds. Many patients benefit from being within a critical care environment but do not, in the strictest sense, require organ support.

3. The process of reviewing 'Levels of Critical Care for Adult Patients' (2009)

The Levels of Care chapter in GPICS Edition 2[4] alluded to the need to review this document and, in 2019, the ICS signaled its intention to do so. We began consulting a broad range of stakeholders (see Appendix 2: List of Stakeholders) to reflect the changing delivery and demands of critical care.

The COVID-19 pandemic initially stalled action but then itself reinforced the need for this review. Specifically, the pandemic demanded more enhanced care beds, which could flex up to Level 3 care if required. Enhanced care can act as a bridge between critical care and normal ward care and can take different forms.[2]

The impetus was added by the 'Intensive Care 2020 and Beyond' workstreams. It was made clear that there was a need to review and agree on the following: Standard definitions for beds; what the levels of critical care mean; where enhanced care sits as part of critical care; staffing ratios across all professions based on evidence.

4. Staffing

Staffing ratios were not included in the original 2009 Levels of Care document and have subsequently been developed through GPICS and the Adult Critical Care Service Specification. Levels of Adult Critical Care relate to the care that the patient needs. The statement does not relate to where, how or by whom it is being delivered. That said, it is recognised that staffing is probably the biggest contributing factor to the delivery of critical care.

We support the ongoing multi-professional reviews of staffing, of which there are several; SEISMIC (Study to Evaluate the Impact of a nurse Staffing Model in Intensive Care) which looks at Nurse Staffing, AHP (specifically Physiotherapy, Occupational Therapy and Speech and Language) and pharmacy services. The aim being to develop an evidence base to reflect staffing based upon patient need, rather than 'level of adult critical care'.

5. Our recommendation on staffing

While awaiting such reviews, it is essential to maintain the staffing levels recommended within GPICS Edition 2. These staffing levels may need to be temporarily altered again to deal with future surges in demand but should always be returned to as soon as possible.

6. Redefining the levels of adult critical care to reflect modern delivery and changing demands

Ward Care

- Patients whose needs can be met through normal ward care in an acute hospital.
- Patients who have recently been relocated from a higher level of care, but their needs can be met on an acute ward with additional advice and support from the critical care outreach team.
- Patients who can be managed on a ward but remain at risk of clinical deterioration.

Level 1 – Enhanced Care

- Patients requiring more detailed observations or interventions, including basic support for a single organ system and those 'stepping down' from higher levels of care.
- Patients requiring interventions to prevent further deterioration or rehabilitation needs which cannot be met on a normal ward.
- Patients who require on going interventions (other than routine follow up) from critical care outreach teams to intervene in deterioration or to support escalation of care.
- Patients needing a greater degree of observation and monitoring that cannot be safely provided on a ward, judged on the basis of clinical circumstances and ward resources.
- Patients who would benefit from Enhanced Perioperative Care.[3]

Level 2 – Critical Care

- Patients requiring increased levels of observations or interventions (beyond level 1) including basic support for two or more organ systems and those 'stepping down' from higher levels of care.
- Patients requiring interventions to prevent further deterioration or rehabilitation needs, beyond that of level 1.
- Patients needing two or more basic organ system monitoring and support.
- Patients needing one organ systems monitored and supported at an advanced level (other than advanced respiratory support).
- Patients needing long term advanced respiratory support.
- Patients who require Level 1 care for organ support but who require enhanced nursing for other reasons, in particular maintaining their safety if severely agitated.
- Patients needing extended post-operative care, outside that which can be provided in enhanced care units: extended postoperative observation is required either because of the nature of the procedure and/or the patient's condition and co-morbidities.
- Patients with major uncorrected physiological abnormalities, whose care needs cannot be met elsewhere.
- Patients requiring nursing and therapies input more frequently than available in level 1 areas.

Level 3 – Critical Care

- Patients needing advanced respiratory monitoring and support alone.
- Patients requiring monitoring and support for two or more organ systems at an advanced level.
- Patients with chronic impairment of one or more organ systems sufficient to restrict daily activities (co-morbidity) and who require support for an acute reversible failure of another organ system.
- Patients who experience delirium and agitation in addition to requiring level 2 care.
- Complex patients requiring support for multiple organ failures, this may not necessarily include advanced respiratory support.

Appendix 1. Levels of care examples

The examples below are illustrative rather than absolutes.

Ward Level Care

- A patient with DKA who is on appropriate treatment and was initially very acidotic but is gradually improving and requiring no organ support.
- A patient who was hypotensive in the Emergency Department but who has responded to intravenous fluids and is now hemodynamically stable with a lower risk of deterioration, such that they can go to a medical ward.
- A patient with OSA who has their own CPAP machine, knows how to use it and does not have acute respiratory failure.
- A patient recently discharged from an enhanced care unit or critical care unit who is stable with a low risk of deterioration.

Level 1 - Enhanced Care

- A patient requiring close physiological monitoring after major surgery – may have additional monitoring devices in situ e.g. arterial line.
- A patient requiring vasopressor support (peripheral or central) but otherwise stable and not deteriorating. E.g. post-op patient with a “saggy” blood pressure secondary to an epidural.
- A patient requiring NIV/CPAP for single organ failure.
- A patient stepping down from level 2 critical care whose needs are greater than those that can be met by ward level care.
- Patients requiring ongoing interventions from critical care outreach teams in their active management.

Level 2 - Critical Care

- A patient requiring NIV/CPAP who has borderline blood pressure and also needs vasopressor support.
- A complex post-op patient highly likely to require one or more organ support. e.g. Ivor-Lewis oesophago-gastrectomy or anterior resection in a patient deemed high risk pre-operatively.
- An Emergency Laparotomy deemed high risk of deterioration and the need for organs support.
- A patient requiring Renal Replacement Therapy in a non-renal setting.
- A more unwell patient who look as though they will deteriorate and require organ support. E.g. severe pancreatitis.
- A patient weaning from mechanical ventilation via a tracheostomy who is spontaneously breathing via the ventilator and is otherwise stable, receiving on-going rehabilitation and whose nursing needs are not high.
- A morbidly obese patient (BMI >40) requiring NIV/CPAP or vasopressor support.
- A patient who requires Level 1 care, who is also suffering from hyperactive delirium.
- A patient stepping down from level 3 critical care.

Level 3 - Critical Care

- A patient requiring mechanical ventilation.
- A patient requiring Renal Replacement Therapy and vasopressor or respiratory support.
- A patient requiring NIV/CPAP and vasopressor support who is also agitated/delirious.
- A patient who is requiring NIV/CPAP and vasopressors who is at risk of requiring additional or more advanced organ support such as Renal Replacement Therapy or mechanical ventilation.
- A morbidly obese patient (BMI >40) who is requiring NIV/CPAP and vasopressor support.
- A patient who requires Level 2 care, who is also suffering from hyperactive delirium.

List of stakeholders

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Peter Shirley	The Faculty of Intensive Care Medicine (FICM)
Paul Twose	The Association of Chartered Physiotherapist in Respiratory Care (ACPRC)
Zahid Khan	Adult Critical Care Clinical Reference Group (ACCCRG)

References

[1] Intensive Care Society (2021) Intensive Care 2020 and Beyond: Co-developing the future.
https://www.ics.ac.uk/ICS/Guidelines/PDFs/Intensive_Care_2020_and_Beyond.aspx

[2] The Faculty of Intensive Care Medicine (FICM, 2020). Guidance on service development in the hospital setting.
https://www.ficm.ac.uk/sites/default/files/enhanced_care_guidance_final_-_may_2020-.pdf

[3] Intensive Care Society (ICS, 2009). Levels of Critical Care for Adult Patients.
http://icmwk.com/wp-content/uploads/2014/02/Revised-Levels-of-Care-21-12-09.pdf

[4] Intensive Care Society/The Faculty of Intensive Care Medicine (ICS/FICM, 2019). Guidelines for the provision of intensive care services. Edition 2.
https://www.ics.ac.uk/ICS/ICS/GuidelinesAndStandards/GPICS_2nd_Edition.aspx

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