

D16 NHS STANDARD CONTRACT FOR ADULT CRITICAL CARE

SCHEDULE 2 – THE SERVICES – A. SERVICE SPECIFICATIONS

Service Specification No.	D16
Service	Adult Critical Care
Commissioner Lead	
Provider Lead	
Period	12 months
Date of Review	

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1. Population Needs

1.1 National/local context and evidence base

National Context

- Adult Critical Care underpins all secondary and specialist adult services. Critical Care incorporates both intensive and high dependency care (ICU/HDU).
- In 2000 the Department of Health report "Comprehensive Critical Care" a Review of Adult Critical Care Services"^[1] recommended the establishment of adult critical care networks. This was published in response to national concerns regarding critical care capacity, equity of access and quality of care.
- Subsequently in September 2005 the National Adult Critical Care Stakeholder Forum document, "Quality Critical Care Beyond Comprehensive Critical Care" ^[2], recommended that "critical care networks be retained, strengthened and fully developed in line with local priorities and needs". This was reinforced in the "Evaluation of modernisation of adult critical care services in England: time series and cost effectiveness analysis"^[3].
- From the 1st April 2013 Adult Critical Care services across NHS England have been required to be delivered through integrated Operational Delivery Networks (ODN)^[4] with services delivered across providers in a pre-determined geographical area.

Evidence Base and Key Publications

- > National publications relevant to Adult Critical Care for specialist services:
 - National Confidential Enquiry into Peri-operative Deaths "Trauma who Cares" 2007^[5].
 - National Audit Office "Major Trauma Care in England" 2010^[6].
 - Royal College of Obstetricians and Gynaecologists/DH 2011: "Providing Equity of Critical and Maternal Care for the Critically III or recently Pregnant Woman"^[7].
 - Royal College of Surgeons /DH 2011:"Higher Risk General Surgical Patient: Towards Improved Care for a Forgotten Group "^[8].
 - National Confidential Enquiry into Peri-operative Deaths 2011: "Knowing the Risk"^[9]
 - NICE CG135: Organ Donation for transplantation: improving donor identification and consent rates for deceased organ donation 2011. ^[10].

2. Outcomes

2.1 NHS Outcomes Framework Domains & Indicators

This service specification dovetails into and underpins the work programmes for the adult Strategic Clinical and Operational Delivery Networks, in particular Adult Critical Care, Cancer, Cardiac, Stroke, Vascular, Renal, tertiary Maternity services and Major Trauma. Within the service specification for adult critical care there are a number of quality standards that have direct relevance to the NHS Outcomes Framework. These are detailed within appendix 1. Many patients with a chronic medical condition will at some time in their pathway require critical care. That episode frequently relates to an acute exacerbation of their illness. In these examples the critical care element of the pathway will be CCG commissioned. It is important for all patients entering critical care to receive the same standards of care irrespective of the source of commissioning.

Domain 1	Preventing people from dying prematurely	
Domain 2	Enhancing quality of life for people with long-term conditions	
Domain 3	Helping people to recover from episodes of ill- health or following injury	
Domain 4	Ensuring people have a positive experience of care	
Domain 5	Treating and caring for people in safe environment and protecting them from avoidable harm	V

Key Service Outcomes:

- Patient review by Consultant in Intensive Care Medicine (as defined by the Faculty of Intensive Care Medicine) within 12 hours of admission to Critical Care (Domain 1, and 3)
- Discharge from Critical Care to a ward within 4 hours of the decision to discharge (Domain 4).
- Transfer from Critical Care to a ward between the hours of 07.00hrs and 21.59 hrs (Domain 1, 4 and 5).
- Avoidance of Readmission back to Critical Care within 48hrs of discharge to a ward (Domain 1, 3 and 5).
- Avoidance of Patient transfer for comparable level 3 critical care (ICU) to another acute hospital (non-clinical transfer) (Domain 4 and 5).
- Participation in the National database for Adult Critical Care (Domain 1, 3, 4, 5.) and timely submission of quarterly data by the end of the following month.
- Standardised case mix adjusted mortality (Domain 1, 3, 5).

The thresholds and methods of measurement for each indicator are detailed in appendix 1 in conjunction with other quality standards. The highlighted indicators will be made publically available within the National dashboard for Adult Critical Care.

Other Patient and Service Outcome measures:

- > Documentation in the patient record of the decision to admit to Critical Care (Domain 4, 5).
- > Admission to Critical Care within 4 hours of making the decision to admit (Domain 4, 5).
- Care within Critical Care to be clinically led by a Consultant in Intensive Care Medicine and staffing to satisfy the standards stated in section 3.2 (Domain 1, 4, 5).
- > Publication of Central Venous Catheter-related Blood stream infection rate (Domain 5)
- Assessment of the rehabilitation needs of all patients within 24 hours of admission to Critical Care and NICE 83^[11]eligible patients on discharge from critical care must receive a rehabilitation prescription (Domain 3, and 4).
- Engagement, contribution and participation in a Critical Care ODN, including audit and peer review (domain 1, 3, 4, 5).
- Publication of the number of elective surgical patients who have had their surgery postponed due to the lack of a post-operative critical care bed (domain 4).

Transfer of a patient to a Trust, closer to their home, to continue their reablement following specialist critical care should occur within 48 hours of the decision to transfer (domain 4).

3. Scope

3.1 Aims and objectives of service

- The aims of this service specification are to ensure equity of access, equitable care and timely admission and discharge to and from adult critical care for all appropriate patients.
- Avoidance of postponement of elective surgery due to lack of a post-operative Critical Care bed.
- Multiple Strategic Clinical and Operational Delivery Networks such as Cancer, Cardiac, Stroke, Vascular, Renal, Maternity, Cardiovascular and Major Trauma will have pathways linking into Adult Critical Care.
- This service will be delivered through Operational Delivery Networks (ODN) that will have an operational role in supporting the activity of Provider Trusts in service delivery of the commissioned pathway, quality improvements and equity of access. This will allow for more local determination, innovation and efficiency across the pathway. The ODN requirements are detailed in a separate specification.
- To ensure that Critical Care continues to be provided in the discrete traditional locations of Intensive Care and High Dependency Care Units, recognising that in exceptional circumstances it may extend to other high care hospital settings as part of a pre-planned and agreed surge framework.
- To utilise the Critical Care National Dataset (*Critical Care Minimum Dataset*)(*CCMDS*)^[12] to describe Adult Critical Care activity in one of 7 HRGs determined by the total number of organs supported during a spell of Critical Care (both ICU and HDU).
- To re-enforce the role played by Critical Care Outreach services in supporting provider organisations in the implementation of their strategies to recognise the deteriorating patient, deliver response to deteriorating health on the wards and the delivery of effective follow up of patients post discharge from Critical Care.
- To continue the culture of continual quality improvement underpinned by reliable information and audit.
- To deliver a National dashboard for Adult Critical Care Services within NHS England's footprint to inform the Clinical Effectiveness debate at local, Network and National levels.
- To improve functionality and increase the quality of life for patients recovering from a period of critical illness (NICE 83^[11]).
- > To deliver a resilient Critical Care Service within a geographical area to meet Emergency

Preparedness Requirements using an ODN model.

3.2 Service description/care pathway

Service Delivery

Critical Care services are delivered within discrete locations such as Intensive Care or High Dependency units. Sometimes these services are dedicated to one speciality e.g. post-cardiac surgery or neurosurgery/neurology but increasingly services are integrated clinically into a single critical care service. Minimum Standards for Adult Critical Care are consistent across all services irrespective of case-mix. Additional professional standards exist at Network and National level and will not be covered in this specification.

Care Pathway

Within the model there is integration for each patient's pathway at ward level at the point of admission to and discharge from Critical Care through the critical care outreach and follow-up services.

An overview of the Critical Care Pathway is shown below:



Admission to Critical Care

- The provider must implement a standardised approach to the detection and response to deteriorating health on general wards with reference to NICE 50^[13]
- Admission to Critical Care must be timely and meet the needs of the patient. Admission must be within 4 hours from the decision to admit (unscheduled admissions).
- The provider should ensure appropriate planning of elective surgical admissions to critical care in order to avoid unnecessary postponement of surgery.
- The decision to admit a patient to Critical Care must be made by a Consultant in Intensive Care Medicine.
- The transfer of a level 3 patient for comparable critical care at another acute hospital (Non-Clinical Transfer) must be avoided.

Critical Care

The provider must ensure that all adult critical care areas are designed and equipped according to the guidelines provided by the Intensive Care Society^[14] and with reference

to the basic standard provided in Department of Health guidance on Admission and Discharge for Intensive and High Dependency Care^[15]. New facilities must comply with the 2013 NHS Estate guidance HBN 04/02^[16].

- The provider must ensure that all equipment conforms to the relevant safety standards and is regularly serviced and that staff are appropriately trained, competent and familiar with their use. The provider must have a programme in place for the routine replacement of capital equipment.
- Once admitted to Critical Care, care must be led by a Consultant in Intensive Care Medicine (as defined by the Faculty of Intensive Care Medicine). Medical staffing must conform to the standards described in the Intensive Care Society/ Intercollegiate Board for Intensive Care Medicine's publication "Standards for Intensive Care units" ^[17].
- Each provider must have a designated Clinical Director/lead Consultant and matron for Critical Care.
- Consultants must be freed from all other clinical commitments when covering Intensive Care and this must include other on-call duties.
- A Consultant in Intensive Care Medicine must be immediately available 24/7, be able to attend within 30 minutes and undertake twice daily ward rounds.
- On admission to Critical Care all patients must have a treatment plan discussed with a Consultant in Intensive Care Medicine.
- All admissions to Critical Care must be seen and reviewed within 12 hrs by a Consultant in Intensive Care Medicine.
- Consultant led multi-disciplinary clinical ward rounds within Intensive Care must occur every day (including weekends and national holidays). The ward round must have attendance or daily input from nursing, microbiology, pharmacy, physiotherapy and dietetics.
- All providers must ensure that:
- > The following nurse to patient ratios are adhered to
- Level 3 patients have 1:1 nursing ratios for direct patient care
- Level 2 patients have 1:2 nursing ratios for direct patient care
- > A minimum of 50% of nursing staff must have a post-registration award in critical care nursing (moving to 70% over time).
- > Each Critical Care Unit must have a supernumery clinical coordinator 24/7.
- A Critical Care Unit must have a supernumerary Clinical Educator, 1 WTE per circa 75 staff.
- All registered nursing staff supplied by Bank/Agency must be able to provide documentary evidence of their competence to practice within a critical care environment.

- The number of non-established bank/agency nursing staff must not on average exceed 20% of a shift.
- Pharmacy services should be in accordance with "General Principles of Intensive Care Services 2013" ^[19].
- Critical Care services must have an effective Clinical Governance Platform. This must encompass:
 - Presence of an Adverse Incident Reporting System and evidence of associated action planning.
 - Participation in the National database for Adult Critical Care, including publication of the nationally agreed dashboard. The Standardised Mortality Ratio is included in this dashboard.
 - Standardised handover procedures for medical and nursing staff, both for shift handovers and discharge of patients from Critical Care back to parent teams.
 - Evidence of effective implementation of evidenced based practice within Intensive Care Medicine.
 - Evidence of effective engagement with patients and their families and carers.
 - Presence of a risk register and associated audit calendar which is regularly updated and acted upon.
 - Effective Strategies to minimise hospital -acquired infections within Critical Care and publication of Central Venous Catheter-related Blood Stream Infection rate.
 - Readmission to Critical Care (ICU and HDU) within 48hrs of discharge.

Discharge from Critical Care

- Transfer from Critical Care to a ward must be formalised within the handover. The handover must satisfy the requirements from NICE 50^[13] and include:
 - A summary of critical care stay including diagnosis, treatment and changes to chronic therapies
 - A monitoring and investigation plan
 - A plan for ongoing treatment
 - Physical and rehabilitation needs
 - Psychological and emotional needs
 - Specific communication needs
 - Follow-up requirements
- > Transfer from Critical Care to a ward between the hours of 07.00hrs and 21.59 hrs.
- Discharge from Critical Care to ward level care must occur within 4 hours of the decision to discharge.
- Transfer of a patient to a Trust, closer to their home, to continue their reablement following specialist critical care should occur within 48 hours of the decision to transfer.

Each patient must have an assessment of their rehabilitation needs within 24hrs of admission to Critical Care and all NICE 83^[11] eligible patients must have a rehabilitation prescription on discharge from critical care. This must be updated throughout the rest of the patient's stay in hospital in accordance with NICE 83^[11].

3.3 Population covered

The service outlined in this specification is for patients ordinarily resident in England or otherwise the commissioning responsibility of the NHS England (as defined in *Who Pays?: Establishing the responsible commissioner and other Department of Health Guidance relating to patients entitled to NHS care or exempt from charges).*

Specifically this service is for adults who have a specialist commissioned pathway which incorporates the need for or availability to Adult Critical Care as a component of their pathway of care. Adult is defined as 18 years or older and Critical care is defined by the level of care a patient requires as described in *"Levels of Care"*^[18]. This specification relates to patients requiring levels 2 and 3 critical care. Patients aged 16 to 18 years are also included in this specification but there may be occasions when a paediatric critical care service is more appropriate for such patients.

3.4 Any acceptance and exclusion criteria and thresholds

Acceptance Criteria

This service specification directly relates to adult patients requiring critical care as a component of their specialist pathway. The Information Rules for Prescribed Specialised Services state that any adult critical care period that is linked with a specialist spell is considered to be specialist. Such pathways will have both scheduled and emergency requirements. Examples of such pathways are patients undergoing oncological surgery, cardiac surgery, vascular surgery, neurosurgery, transplantation, tertiary obstetrics, and patients triaged as "candidate major trauma" within the Major Trauma pathway. This list is merely illustrative and there are in addition many other surgical and non-surgical pathways to which this service specification applies. An additional identical specification for Critical Care will be written for adult and young persons CCG commissioned care pathways.

Exclusion criteria

This service specification applies to NHS England commissioned ICU activity but it is also anticipated that Trusts will work to the same standards for all ICU patients during their critical illness.

The decision to admit a patient to a critical care unit is complex and dependent on many factors. The decision should be informed by discussion between the referring teams and critical care at consultant level; however the ultimate decision to admit must always lie with the duty intensivist.

Children aged 0 to 15 years may require admission to an adult critical care unit in exceptional circumstances (e.g. for stabilisation before transfer to a paediatric critical care unit or during a contingency situation).

3.5 Interdependencies with other services/providers

The management of critically ill patients whether commissioned by NHS England or CCGs requires

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the input of a number of medical and non-medical specialties, and other agencies. Ultimately the nature of core supporting services will be dependent on the patient case mix of the critical care unit but the following shall be considered as minimum interdependencies:

Co-located Services – to be provided on the same site and to be immediately available 24/7	 Competent resident medical practitioner with advanced airway skills (anaesthetist/Intensive Care Medicine) General Internal Medicine Endoscopy Radiology: CT, Ultrasound, plain xray Echocardiography/ECG General Surgery for any site with unselected medical admissions. Access to Theatres Transfusion Services Essential haematology/ biochemistry service and point of care service Speciality Intensive Care Units must have their speciality specific surgical services e.g. vascular surgery with interventional vascular radiology, nephrology and interventional cardiology; obstetrics with general surgery.; Informatics support.
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	Physiotherapy Bharmany
	Pharmacy Modical Engineering Services
Interdependent Services, available 24/7. The	 Medical Engineering Services Interventional Vascular and non-vascular
response time to these specialities will	 Interventional vascular and non-vascular Radiology
depend on the case mix of the patient	Neurosurgery
population and will range from available	 Vascular Surgery
within 30mins to a maximum of 4 hours.	 General Surgery
	 Nephrology
For services not immediately available on	 Coronary Angiography
site service level agreements need to	Cardiothoracic Surgery
specify response times.	Trauma and Orthopaedic Surgery
	Plastic Surgery
	 Maxillo-facial Surgery
	Ear, Nose and Throat Surgery
	Obstetrics and Gynaecology
	Organ Donation Services Acute/Early Phase Rehabilitation Services
	 Acute/Early Phase Rehabilitation Services Additional laboratory diagnostic services
Interdependent services - available during	 Additional laboratory diagnostic services Occupational Therapy
daytime hours (Monday – Friday)	 Dietetics
	 Speech and Language Therapy
	Bereavement Services
	Patient Liason Service
Interdependencies with operational delivery	Critical Care Networks

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networks	 Burns Networks 	
	 Trauma Networks 	
	Paediatric Critical Care	
Interdependencies with Strategic Clinical Networks	 Cancer, Cardiac, Stroke, Vascular and Renal Networks Maternal and Paediatric Networks 	
Interdependencies with CCG commissioned pathways and services		
Related services – services available following the critical care phase of the patient journey	 Local Hospital and Community Rehabilitation Services Specialised Rehabilitation Services Critical Care Follow Up Clinical Psychology Spinal Cord Rehabilitation Services Primary Care Burns Services Voluntary Support Services Independent Providers 	

4. Applicable Service Standards

4.1 Applicable national standards e.g. NICE

The following National Standards relate to Adult critical Care and are essential in order to provide a minimum standard of service:

NHS Estates: HNB57 Building Regulations for Critical Care^[17]

NICE

Short Guideline Programme

- > 2007 NICE 50 :Acutely ill Patients in Hospital^[13]
- > 2009 NICE 83; Rehabilitation after Critical Illness^[11]
- > 2010 NICE 103 :Delirium :diagnosis, prevention and management
- 2011 NICE CG135 : Organ Donation for transplantation: improving donor identification and consent rates for deceased organ donation^[10]

NCEPOD

- > 2005: "An Acute Problem?"
- > 2007 "Trauma who Cares" ^[5]
- 2009: "Adding insult to injury". A review of the care of patients who died in hospital with a primary diagnosis of acute kidney injury (acute renal failure)
- 2011: Knowing the Risk ^[9]: a review of the peri-operative care of surgical patients. This report identified that recognition of an individual patient's risk by surgical, anaesthesia and critical care teams were implicated in not designing the optimal clinical pathway for higher risk surgical patients. It was recognized that a much greater use of Critical Care

would be appropriate for such patients.

Department of Health/NHS England

- > 1996 Guidelines on Admission and Discharge from ICU/HDU^[15].
- > 2000 Comprehensive Critical Care [1]
- 2003 Allied Health Professionals and Health Care Scientists Critical Care Staffing Guidance-Modernisation Agency
- > 2005 Quality Critical Care-Beyond Comprehensive Critical Care^[2]
- > 2006 Critical Care Dataset launched (CCMDS)^[12]
- 2008 The National Education and Competence Framework for assistant Critical Care Practitioners
- 2008 The National Education and Competence Framework for Advanced Critical Care Practitioners
- 2009 Framework of Acute Care Competencies for recognising and responding to deteriorating health
- > 2010 Information Standards Notice amendment: CCMDS version 8^[12]
- ➢ 2012 ODN^[4]

National Audit Office

2010 "Major Trauma Care in England" ^[6].

4.2 Applicable standards set out in Guidance and/or issued by a competent body (e.g. Royal Colleges)

Intensive Care Society/Faculty of Intensive Care Medicine/ European Society of Intensive Care Medicine/Intercollegiate Board for training in ICM/European Federation of Critical Care Nursing Associations

- > 1997 Standards for Intensive Care^[14]. Currently being revised
- > 2006 Standards for Intensive Care Units^[17]
- > 2007 Position Statement on Workforce Requirements in Critical Care Units
- > 2009 Intensive Care Society: Levels of Care [18]
- > 2011 Guidelines for the transport of the critically ill adult (3rd Edition).
- 2012 Prospectively defined indicators to improve the safety and quality of care for critically ill patients: a report from the Task Force on Safety and Quality of the European Society on Intensive Care Medicine ICM 2012
- > 2013 General Principles of Intensive Care Services 2013^[19]

Royal College of Nursing

> 2003 Guidance for Nurse Staffing in Critical Care

British Association of Critical Care Nurses

> 2009 Standards for nurse staffing in Critical Care

Royal College of Surgeons

- > 2010 "Trauma who cares"
- 2011: "Higher Risk General Surgical Patient Towards Improved Care for a Forgotten Group "^[8]

Royal College of Obstetricians and Gynaecologists, Royal College of Midwives, Royal College of Anaesthetists, OAA and Society of Fetal and Maternal Medicine

> 2011 "Providing Equity of Critical and Maternal Care for the Critically III or recently Pregnant Woman"^[7] World Federation of Critical Care Nurses > 2005_Position Statement on the Provision of Critical Care Nursing Workforce British Medical Journal. > 2009:339: b4353 "Evaluation of modernisation of adult critical care services in England: time series and cost effectiveness analysis" [3] 5. Applicable quality requirements and CQUIN goals 5.1 Applicable quality requirements (See Section 3.2 above, Appendix 1 and Schedule 4 Parts A-D NHS Contract) Applicable CQUIN goals (See Schedule 4 Part E NHS Contract) 5.2 6. Location of Provider Premises The Provider's Premises are located at: Not Applicable

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7. Individual Service User Placement

Not Applicable

Appendix 1.

Quality standards specific to the service using the following template:

Quality Requirement	Threshold	Method of Measurement	Consequence of breach
Domain 1: Preventing	people dying prematurely		
Unplanned	1.2%	National Database	As per Standard
readmission to Critical Care within 48 hours of discharge to the ward.	<u>Definition</u> : Critical care unit survivors discharged to a ward in the same hospital that are subsequently readmitted to the same critical care unit within 48 hours of discharge	(proposed addition to ICNARC's Case Mix Programme)	NHS Contract, General Conditions Clause 9 (GC9) Remedial Action Plan
Avoidance of "Night Time "discharge to a ward area from critical Care	6.3% <u>Definition</u> : Critical care unit survivors discharged to a ward in the same hospital between 22:00 and 06:59	National Database (currently ICNARC Case Mix Programme)	GC9
Participation in the National database for Adult Critical Care, including publication of the Nationally agreed dashboard.	100% of admissions submitted to National Database	National Database (currently ICNARC Case Mix Programme)	GC9
Patient review within 12 hours of emergency admission to Critical Care by Consultant in ICM	100% of admissions	National Database (not currently in Case Mix Programme addition)	GC9
Admission to Critical Care should be within 4 hours of decision to admit.	100% of admissions	National Database (to be included in ICNARC Case Mix Programme)	GC9

Quality Requirement	Threshold	Method of Measurement	Consequence of breach
Domain 2: Enhanci	ng the quality of life of po		
Domain 3: Helping pe	eople to recover from episo	des of ill-health or follo	wing injury
Provision of Rehabilitation for patients after critical illness	 100% patients received a rehabilitation assessment within 24 hours of admission 100% of NICE 83 eligible patients on discharge from critical care receive a rehabilitation prescription. 	National Database (to be included in the ICNARC Case Mix Programme)	GC9
Domain 4: Ensuring t	hat people have a positive	experience of care	
Avoidance of "Night Time "discharge to a ward area from critical Care	6.3% <u>Definition</u> : Critical care unit survivors discharged to a ward in the same hospital between 21.59 and 06:59	National Database (currently ICNARC Case Mix Programme)	GC9
Discharge from Critical Care to a ward should be within 4hours of the decision to discharge	57.1% Definition: Critical care unit survivors with a delay of 4 hours or more between time when fully ready for discharge and time of discharge (percentage of all unit survivors, excluding those where discharge within 4 hours would have resulted in discharge between 22:00 and 06:59)	National Database (currently ICNARC Case Mix Programme)	GC9
Avoidance of non- clinical transfer	0.4% Definition: Critical care	National Database (currently ICNARC	

	Threshold	Method of Measurement	Consequence of breach
Avoidance of "Night Time "discharge to a ward area from critical Care	6.3% <u>Definition</u> : Critical care unit survivors discharged to a ward in the same hospital between 22:00 and 06:59	National Database (currently ICNARC Case Mix Programme)	GC9
Avoidance of non- clinical transfer for critical care	0.4% Definition: Critical care unit survivors discharged for comparable critical care to a Level 3 bed in an adult ICU or ICU/HDU in another acute hospital	National Database (currently ICNARC Case Mix Programme)	GC9
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