

SCHEDULE 2 – THE SERVICES

A. Service Specifications

Service Specification No:	170118S
Service	Adult Critical Care
Commissioner Lead	<i>For local completion</i>
Provider Lead	<i>For local completion</i>

1. Scope

1.1 Prescribed Specialised Service

This service specification covers the provision of Adult Critical Care services.

1.2 Description

Adult Critical Care underpins all secondary and specialist adult services. Critical Care incorporates both intensive and high dependency care (ICU/HDU) stand alone or combined. Specifically, this service specification is for adults who have a specialised commissioned pathway which incorporates the need for or availability to Adult Critical Care (level 2 and 3 see 2009 Intensive Care Society: Levels of Care for definition) as a component of their pathway of care.

This specification is not applicable to high care areas provided by specialised services such as Post-Operative Anaesthetic Care Units, Extended Recovery Units, Nephrology, Respiratory or Cardiology.

1.3 How the Service is Differentiated from Services Falling within the Responsibilities of Other Commissioners

Adult critical care services are commissioned by both NHS England and Clinical Commissioning Groups.

The Identification Rules for Prescribed Specialised Services state that any adult critical care period that is linked with a specialist spell is considered specialised and is commissioned by NHS England.

2. Care Pathway and Clinical Dependencies

2.1 Care Pathway

Critical Care services are delivered within discrete locations such as Intensive Care or High Dependency Units, or combined units (where ICU and HDU are co-located). 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.

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 Clinical Guideline 50.
- 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 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) should be avoided.

Critical Care

- Each provider must have a designated Clinical Director/lead Consultant, matron and advanced level pharmacist for Critical Care, all of whom should be actively engaged in their local Adult Critical Care Operational Delivery Network (ODN).
- Clinical pharmacists are essential practitioners within the critical care multi-professional team and are vital to the routine delivery in critical care practice of medicines optimisation.
- Care within Critical Care must be led by a Consultant in Intensive Care Medicine (as defined by the Faculty of Intensive Care Medicine). Where providers do not meet this standard consideration should be given as to how this may be achieved through involvement in their local critical care ODN to facilitate collaboration between stakeholders.
- 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 and be able to attend within 30 minutes.
- 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.
- Patients in Critical Care should receive twice daily ward reviews by a Consultant in Intensive Care Medicine (in line with 7-day standards) (Domains 1 and 3).
- In addition, there should be multidisciplinary 7-day input available from the extended team (e.g. microbiology, pharmacy, physiotherapy and where applicable, dietetics and speech and language).
- Clinical pharmacists supporting delivery of medicines optimisation in critical care areas must provide patient-centred care, including: medicines reconciliation (on admission and discharge), independent patient medication review with attendance of multi-professional ward rounds and professional support activities, including: clinical guidelines, medication-related clinical incident reviews and clinical audit and evaluation.

All providers must provide a nursing establishment determined by the following nurse to patient ratio:

- Level 3 patients have 1:1 nursing ratio for direct patient care
- Level 2 patients have 1:2 nursing ratio for direct patient care

Nursing staff should be supported by an appropriately sized critical care educational team. The size of the team should be determined locally, however there must be access to a clinical educator.

Additionally:

- There must be a training strategy in place to achieve a minimum of 50% of nursing staff with a post-registration award in critical care nursing.
- Each Critical Care Unit must aim to have a supernumerary shift clinical coordinator 24/7.
- Critical Care services must have an effective clinical governance platform and robust data collection system. This must encompass:
 - Participation in national audit programmes for Adult Critical Care (the Intensive Care National Audit and Research Centre (ICNARC) Case Mix Programme, including patient reported outcome measures (PROMS) when available;

- Public Health England Infection in Critical Care Quality Improvement Programme (ICCQIP), including the nationally agreed dashboard. Note: The Standardised Mortality Ratio is included in this dashboard.
- In addition to the NHS England self-assessment process, providers are required to participate in activities of the unit's local ODN for Adult Critical Care, including peer review.
- Providers should:
 - be working towards compliance with NICE Clinical Guideline 83 and Quality Standard 158. As a minimum, this should include having benchmarking data and a 'SMART' action plan in place;
 - be able to demonstrate effective implementation of evidenced based practice within Intensive Care Medicine.
 - be able to evidence effective engagement with patients and their families and carers.
 - be able to demonstrate that they have a risk register in place together with an associated audit calendar which is regularly updated and acted upon.
 - have effective strategies in place to minimise hospital-acquired infections within Critical Care and publish central venous catheter-related blood stream infection rates.
 - be able to demonstrate avoidance of readmission to Critical Care (ICU and HDU) within 48hrs of discharge.
- Each Critical Care Unit must submit capacity data at least twice a day to the national Directory of Services bed management system.

Discharge from Critical Care

Transfer from Critical Care to a ward must be formalised within the handover. The handover must satisfy the requirements in NICE Clinical Guideline 50 and demonstrate progress towards compliance with NICE Quality Standard 83.

- Transfer from Critical Care to a ward must occur between the hours of 07.00hrs and 21.59 hrs, ideally between 07.00hrs and 19.59hrs.
- Discharge from Critical Care to ward level care must occur within 4 hours of the decision to discharge.
- Patients undergoing specialist care should be repatriated to a Trust closer to their home when clinically appropriate to continue their reablement. Such discharge should occur within 48hrs of the decision to repatriate and the decision to repatriate should not be a reason to delay discharge from critical care to a ward bed.

Relationship with Operational Delivery Networks

Critical Care ODNs fulfil several roles including:

- Supporting providers with knowledge, expertise and practical support to redesign their services; enhancing patient safety; patient experience and partnership working.
- Supporting commissioners in the delivery of their commissioning functions, for example:
 - providing peer review functionality;
 - assisting with service redesign/delivery;
 - supporting quality improvement initiatives;
 - providing local knowledge to support funding models and commissioning intentions inherent in their sustainability and transformation partnership (STP) plans where expertise and funding exist.
- Their role is also increasingly relevant to supporting the very small number of geographically remote critical care units (there are 16 providers with an average distance of 80 KM from a neighbouring unit) to develop a service model that maintains equity of access and breadth of service for their population and provides sustainable solutions for these rural units.
- Assisting providers and commissioners in the delivery of their Emergency Preparedness, Resilience and Response (EPRR) plans.

2.2 Interdependence with other Services

Access to adult critical care services may require the patient to be transferred to another unit where the required speciality is available.

Adult Critical Care underpins all acute specialised and non-specialised inpatient clinical pathways. Collaborative working between commissioners (NHS England Specialised Commissioning teams and CCGs) and Clinical Networks (SCNs and ODNs) is essential to the design and delivery of the service.

The management of critically ill patients whether commissioned by NHS England or CCGs requires the input of several medical and non-medical specialties, and other agencies such as Emergency Medicine/General Surgery, Clinical Psychology, Mental Health, Rehabilitation, Reablement and Recovery Services. Ultimately the nature of core supporting services will be dependent on the patient case mix of the critical care unit.

Co-located services - provided on the same site so that they are immediately available 24/7:

- General Internal Medicine
- Radiology: CT, ultrasound, plain x-ray
- Echocardiography/ECG
- General surgery (for any site with general surgical admissions)
- Transfusion services
- Essential haematology/ biochemistry service and point of care service
- Physiotherapy
- Pharmacy
- Medical Engineering services
- Speciality Intensive Care Units must have their speciality specific surgical service co-located with other interdependent services, e.g. vascular surgery with interventional vascular radiology, nephrology and interventional cardiology; obstetrics with general surgery.

Access to theatres and a competent resident clinician (Anaesthetist / Intensive Care Medicine) with advanced airway skills should also be available 24/7 along with informatics support.

Interdependent services

The following 24/7 services need not be co-located on-site, but service level agreements should specify response times for these specialities, which will range from being available within 30mins to a maximum of 4 hours, dependent on the case mix of the patient population:

- Interventional vascular and non-vascular Radiology
- Neurosurgery
- Vascular surgery
- General surgery (only applies to a site which does not admit general surgical patients)
- Nephrology
- Endoscopy
- Coronary angiography
- Cardiothoracic surgery
- 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
- Additional laboratory diagnostic services

The following services should be available during daytime hours (Monday – Sunday):

- Occupational Therapy*
- Dietetics*
- Speech and Language Therapy*
- Bereavement Services
- Patient Liaison Service*

*A 5-day service is adequate unless special indications have been identified at a local level

Related services – 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

3. Population Covered and Population Needs

3.1 Population Covered by This Specification

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 or are anticipated to require 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". 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. Such pathways may have both scheduled and emergency requirements.

3.2 Population Needs

The demand for critical care will continue to grow due to an ageing population and advances in technology. The need for level 2 and level 3 care will increase with the increasing use of specialised services such as complex interventional cardiology, bone marrow and solid organ transplants.

NHS England commissions approximately 43% of the total adult critical care activity in England with clinical commissioning groups commissioning the remainder. In 2016/17 an average of 41,000 bed days were commissioned by NHS England per month. The majority of patients were aged 50 years and over (77%). Since 2014 the average annual increase in activity is about 3.8%.

3.3 Expected Significant Future Demographic Changes

The population in England is expected to increase by 5.9% between mid-2016 and mid-2026, an average annual increase of ~1%. The number of older people is expected to double. Both will have an impact on demand for specialised critical care as this is likely to lead to increases in specialised interventions such as arterial thrombectomy and cardiac procedures.

3.4 Evidence Base

This specification references existing standards (section 5).

4. Outcomes and Applicable Quality Standards

4.1 Quality Statement – Aim of Service

The aims of the service are as follows:

- 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.
- To ensure that Critical Care continues to be provided in the discrete traditional locations of Intensive Care, High Dependency Care or combined 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 (i.e. the Critical Care Minimum Dataset - CCMDS) 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 providing outreach to avoid unnecessary and avoidable transfer to critical care and 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 Clinical Guideline 83 and Quality Standard 158).
- All units must participate in National Audits in Intensive Care Medicine, including ICNARC's Case Mix Programme and PHE ICCQIP.

NHS Outcomes Framework Domains

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	√

4.2 Quality Indicators

Number	Indicator	Data Source	Outcome Framework Domain	CQC Key question
Clinical Outcomes				
101	Proportion of total available critical care bed days utilised for patients more than 24 hours after the decision to discharge	SSQD	1, 2,5	responsive
102	Proportion of live discharges, discharged within 4 hours post decision to discharge	SSQD	1, 2,5	effective

103	Proportion of live discharges, discharged greater than 24hrs after decision to discharge	SSQD	1,2,5	effective
104	Proportion of live discharges, discharged from critical care between 07:00am and 21:59pm	SSQD	1, 2,5	caring
105	Proportion of live discharges between 07:00am and 19:59pm	SSQD	1, 2,5	caring
106	Proportion of elective surgical critical care bed bookings cancelled on the day of surgery due to lack of availability of a post-operative critical care bed	SSQD	1, 2,5	responsive
107	Standardised mortality ratio (using ICNARC risk adjustment model) for critical care patients	SSQD	1, 2,5	effective, safe
108	Rate of blood stream infections	SSQD	1, 2,5	effective, safe
Patient Experience				
201	The service engages with patients and families to inform service developments	Self-declaration	4	responsive, caring
Structure and Process				
001	There is designated medical, nursing and pharmacy leadership	Self-declaration	1,2,5	Well led
002	There is consultant led care	Self-declaration	1,2,5	Effective, Safe
003	There is a nursing establishment to support the patient staff ratios identified in the specification	Self-declaration	1,2,5	Effective, Safe
004	All staff are trained in critical care	Self-declaration	1,2,5	Effective, Safe
005	There is a pathway in place for admission and discharge of patients	Self-declaration	1,2,5	Effective, Safe
006	There are clinical guidelines in place	Self-declaration	1,2,5	Effective, Safe
007	The service participates in the network governance arrangements	Self-declaration	1,2,5	Effective, Safe

4.3 Commissioned providers are required to participate in annual quality assurance and collect and submit data to support the assessment of compliance with the service specification as set out in Schedule 4A-C

4.4 Applicable CQUIN goals are set out in Schedule 4D

5. Applicable Service Standards

5.1 Applicable Obligatory National Standards

The provider must comply with the following:

NICE

- 2007 NICE Clinical Guideline 50: Acutely ill Patients in Hospital

- 2009 NICE Clinical Guideline 83: Rehabilitation after Critical Illness*
- 2010 NICE Clinical Guideline 103: Delirium: diagnosis, prevention and management
- 2011 NICE Clinical Guideline 135: Organ Donation for transplantation: improving donor identification and consent rates for deceased organ donation

NHS Estates

- NHS Estate Guidance 2013 HBN 04/02

Department of Health/NHS England

- 2006 Critical Care Dataset launched (CCMDS)
- 2008 The National Education and Competence Framework for Advanced Critical Care Practitioners
- 2010 Information Standards Notice amendment: CCMDS version 8
- Seven Day Services Clinical Standard, September 2017, NHS England (www.england.nhs.uk/publication/seven-day-services-clinical-standards/)

National Audit programmes in Intensive Care Medicine

- ICNARC Case Mix Programme, National Dashboard for Adult Critical Care
- PHE ICCQIP

5.2 Other Applicable National Standards to be met by Commissioned Providers

The provider should comply with:

- Intensive Care Society: Levels of Care, 2009
- Guidelines for the transport of the critically ill adult (3rd Edition), 2011
- Guidelines for Provision of Intensive Care Services (FICM/ICS), 2015 *

*demonstrates progress towards compliance (including as a minimum: having benchmarking data and a 'SMART' action plan in place)

5.3 Other Applicable Local Standards

ODN and sub-speciality standards may apply

5.4 Evidence supporting the standards for Intensive Care Medicine

- NICE Quality Standard Rehabilitation after Critical Illness in Adults 2017
- NICE Clinical Guideline 83: "Rehabilitation after Critical Illness" 2009
- 2009 Intensive Care Society: Levels of Care
- 2009 "Evaluation of modernisation of adult critical care services in England: time series and cost effectiveness analysis", British Medical Journal
- 2009: NCEPOD "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: NCEPOD Knowing the Risk, 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.
- Royal College of Obstetricians and Gynaecologists/DH 2011, "Providing Equity of Critical and Maternal Care for the Critically Ill or recently Pregnant Woman".
- Royal College of Surgeons /DH 2011, "Higher Risk General Surgical Patient: Towards Improved Care for a Forgotten Group".
- National Confidential Enquiry into Peri-operative Deaths 2011, "Knowing the Risk".
- NICE Clinical Guideline 135, Organ Donation for transplantation: improving donor identification and consent rates for deceased organ donation 2011.
- 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

- 2015 Guidelines for Provision of Intensive Care Services (FICM/ICS). This document has collated all relevant standards which apply to Adult Critical Care in the UK. Some of the recommendations are aspirational and as such provide a framework for teams to develop their services over several years.
- NICE Guideline 5 “Medicines optimisation: the safe and effective use of medicines to enable the best possible outcomes” (March 2015).
- Faculty of Intensive Care Medicine /Intensive Care Society “Guidelines for Provision of Intensive Care Services 2015”
- “Operational productivity and performance in English NHS acute hospitals: Unwarranted variations” (Feb 2016) (Carter Review).
- “Transformation of seven-day clinical pharmacy services in acute hospitals” (Sept 2016).

6. Designated Providers (if applicable)

Not applicable.

7. Abbreviation and Acronyms Explained

The following abbreviations and acronyms have been used in this document:

CCMDS: Critical Care Minimum Dataset

EPRR: Emergency Preparedness, Resilience and Response

FICM: Faculty of Intensive Care Medicine

HDU: High Dependency Unit

ICNARC: Intensive Care National Audit and Research Centre

ICS: Intensive Care Society

ICU: Intensive Care Unit

NCEPOD: National Confidential Enquiry into Patient Outcome & Death

ODN: Operational Delivery Network

PHE ICC QIPP: Public Health England Intensive Care Quality Improvement Programme

SCN: Strategic Clinical Network

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