Classification: Official



# Adult critical care surge plan guidance



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#### December 2023 Edition

This updated edition of the adult critical care surge plan guidance provides updated nomenclature and definitions.

#### Local surge plans should be reviewed and updated to reflect this quidance.

Guidance will be revised regularly as further evidence emerges. The next review is planned in Spring 2025.

Below is a list of substantive updates in this edition:

- Alignment of this guidance to NHS Resilience processes and structures has been outlined.
- CRITCON definitions have been updated.
- Specific mention has been made of the requirement to coordinate surge planning at local, system and regional level with interdependent services, in particular paediatric critical care services.

## Context and Purpose

- 1.1 The adult critical care surge plan guidance is one of a suite of guidance documents that NHS England (NHSE) has developed in discussion with a range of stakeholders.
- 1.2 The purpose of this guidance is to specifically set out:
  - the process for the identification of current and potential adult critical care capacity
  - a consistent national approach by which providers of adult critical care services can escalate **very high**<sup>1</sup> capacity pressures to commissioners and our organisation in regions

<sup>&</sup>lt;sup>1</sup> Very high local surge is defined as 100% baseline capacity occupied with no discharges in the previous 24 hours

- how provider organisations, adult critical care networks, integrated care systems (ICSs) and their stakeholders should act in response to such escalations
- the anticipated escalation process locally, regionally, and nationally across NHSE in support of adult critical care networks (including the NHS Strategic Command arrangements to be implemented by us should they be required).
- 1.3 For this document, 'critically ill' is defined as requiring a level of care greater than that normally provided on a standard hospital ward.
- 1.4 Levels of care are defined based on the monitoring and support patients require, rather than the location in which they are receiving care. They have been developed by the Intensive Care Society and set out in their <u>Levels of adult critical care Consensus statement</u> as described in Table 1 (below):

#### **Table 1: Levels of care, from Intensive Care Society definitions**

#### **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 details 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 ongoing 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.

#### 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 to requiring level 2 care.
- Complex patients requiring support for multiple organ failures, this may not necessarily include advanced respiratory support.
- 1.5 It is recognised that the escalation arrangements outlined in this guidance may not be required solely because of exceptional increased demand for adult critical care services, but also as a requirement to support increases in demand for interdependent services. Further information on these services can be found in section 8.
- 1.6 To align with the 'system first' approach and in recognition of the variation in regional and system structures, this guidance sets out stepped thresholds for

decision making for each defined phase of surge. As such, this guidance supplements and should be read in conjunction with:

- local escalation plans for adult critical care services
- local escalation plans for health and social care services
- standard operating procedures (SOPs) for adult critical care transfer and other interdependent services, details of which can be found in section 9
- other critical care service operational policies together with national and professional bodies' guidance.

#### Strategic aims

- 1.7 This guidance aims to aid local and regional planning for and operational responses to exceptional circumstances<sup>2</sup> when demand for critical care exceeds usual capacity.
- 1.8 The strategic aims of this guidance are to:
  - maintain a high quality of care to support the best possible outcomes for patients with providers working collaboratively across an Integrated Care System ('system') or region
  - maintain timely access to adult critical care for any patient that **requires it** and thereby prevent avoidable mortality and morbidity
  - maximise capacity in the critical care system in a range of scenarios through a co-ordinated escalation and de-escalation approach across geographical footprints
  - avoid the transfer of critically ill patients wherever possible by ensuring all options to increase capacity have been exhausted prior to the consideration of implementing capacity transfers<sup>3</sup>
  - ensure provision of critical care as close to home as possible while maintaining standards of care, including when the transfer of patients is necessary.

<sup>&</sup>lt;sup>2</sup> Exceptional circumstances are defined as an increase in demand which results in 100% baseline occupancy with no discharges in the previous 24-hour period.

<sup>&</sup>lt;sup>3</sup> Capacity transfers are defined as "transfers for non-clinical reasons" – see glossary.

## 2. Principles

#### **Core principles**

- 2.1 The following core principles should guide system responses when managing very high local surge and escalation pressures for adult critical care services:
  - The stepped increase in capacity in response to demand must be fully aligned with regional <u>NHS Resilience principles</u>.
  - 'Normal' clinical pathways for patients requiring treatment from critical care services should be preserved for as long as possible.
  - The provision of emergency, general and specialised services should be preserved for as long as possible.
  - Equity of access to treatment should be maintained.
  - Nationally recognised professional nursing and medical staffing ratios should be maintained wherever possible, in line with the adult critical care specifications.
  - A 'system first' approach to the management of adult critical care must be adopted to ensure that capacity is co-ordinated across the system to meet demand.

#### Inter-hospital mutual aid

- 2.2 When there is persistent demand for critical care beyond usual capacity (i.e. surge conditions), inter-hospital mutual aid<sup>4</sup> may be required as necessary as a mechanism to manage supply and demand across an ICS/regional/inter-regional footprint.
- 2.3 A unit may require decompression for several reasons. This includes the maintenance of safe staffing ratios, inadequate capacity to accept emergency admissions and, on rare occasions, the need to undertake life limiting/lifesaving treatment of another patient.

<sup>&</sup>lt;sup>4</sup> Mutual aid is the sharing of resources between units, hospitals, trusts, systems or regions. This may occur outside surge conditions in times of shortages (eg medicines, equipment); but more usually, it refers to the requirements to 'level-load' during surges in demand which require expansion of services beyond their usual footprint.

- 2.4 Inter-hospital transfers may be considered in the following categories:
  - Clinical transfer: a patient's own clinical care requires expertise unavailable in their current critical care unit or hospital.
  - Repatriation: the patient is being repatriated closer to home, family, friends, or carers ('repatriation').
  - Mutual aid or surge transfer: the treating critical care unit is under extreme clinical pressure, beyond its usual capacity, and the patient is likely to benefit from moving to a less busy unit.
  - Capacity transfer: the treating critical care unit needs to create capacity to
    facilitate emergency or urgent clinical care for another patient. This may
    occur outside surge conditions, in exceptional circumstances, to support
    urgent admission for another patient. An urgent intervention is considered
    to be P1 and P2 surgery, without which a patient is at risk of reduced
    survival or significant morbidity if surgery is delayed. We have published
    separate guidance on capacity transfers.
- 2.5 Key considerations prior to enacting mutual aid or capacity transfers include:
  - All patients should have equitable access to critical care when required.
  - If critical care capacity is limited by issues with patient flow (i.e. delayed discharges), these must be resolved before patient transfers are considered.
  - The referring trust/system/region must have undertaken all reasonable measures to improve critical care capacity while maintaining safe staffing limits.
  - The decision to transfer a patient may be required in exceptional circumstances to facilitate another patient's life threatening/limiting surgery or intervention in the referring hospital when safe capacity in the critical care unit has, or is expected to be exceeded within hours.
  - Decompression of units can facilitate safe provision of critical care across a system when the system is faced with exceptional demand.
  - The decision of who to transfer should be made on a case-by-case basis following discussions between clinicians on referring and receiving units.
  - The reason for transfer should be explained clearly to the patient and family/next of kin in line with <u>duty of candour</u>. Capacity transfers require patient consent or family/next of kin assent.

#### **Escalation factors**

- 2.6 System approaches to co-ordination of the safe management of demand and capacity should be made in alignment to local command and control structures/governance and escalated to national levels in a consistent way.
- 2.7 It is imperative that the triggers to activate additional capacity are sensitive enough to give sufficient time to free up capacity before the system is grid-locked.
- 2.8 It is recognised that the management of local surge and wider escalation pressures will be dependent upon the consideration of a number of factors. These factors include:
  - The availability of suitably trained staff, and equipment and specialist supplies. In the case of infectious disease outbreaks, this should include consideration of the additional workforce required to maintain safe staffing in separate cohorted areas.
  - The case-mix of patients in local units.
  - The expected length of stay of patients in local units.
  - The available capacity (or forecasted).
  - Any underlying disease rates impacting on critical care admission rates.
  - The size of hospitals within systems and the capability to extend critical care or increase surge capacity.

## 3. Escalation thresholds and key actions

- 3.1 Requirement to surge critical care capacity can be extremely rapid and can occur over a 48 to 72-hour period. Not all hospitals in a region will surge at the same time. There may be significant geographical variation.
- 3.2 The description of critical care escalation phases are:
  - Pre-surge phase occurs during most periods of higher activity (eg average winter) and is defined as: the majority of critical care units within a system are declaring <u>CRITCON 0-1</u>.

- **Surge phase** represents expected winter pressures where critical care units, systems and regions are operating within regional winter planning assumptions, with the majority of units declaring <a href="CRITCON 2">CRITCON 2</a>.
- Escalation phase occurs when critical care units, systems and regions are operating above expected winter pressures, with the majority of units declaring <u>CRITCON 2</u> and an increasing number of units declaring CRITCON 3
- Heightened escalation phase occurs when critical care units, systems
  and regions are operating under severe pressures, and multiple capacity
  transfers are required within and between adjacent regions each day. There
  are an increasing number of tertiary units reporting <u>CRITCON 3</u>.
- 3.3 Table 2 sets out more detailed threshold definitions and key actions to be taken at a local, regional, or national level to support escalation in response to surges in demand.
- 3.4 For consistency, the following definitions are used:
  - Baseline bed/funded bed: any adult critical care bed that is recognised in the commissioning arrangement for the trust.
  - Surge bed: any adult critical care bed that is not usually recognised in the commissioning arrangement for the trust but is opened to meet increased demand.
  - Open bed: any adult critical care bed that is staffed and able to accept a
    patient.
  - Available bed: any adult critical care bed that is open, staffed, and able to accept a patient.
- 3.5 The number of overall beds is defined by those open, i.e. staffed and available, on the day of reporting. It excludes those beds ringfenced for elective surgery (green pathways) and those ringfenced for specialised services (where these are in place). It is therefore expected that the denominator will change over time.
- 3.6 At times of very high demand, consideration should be given as to whether some beds should be ringfenced to protect P1 and P2 surgical activity to

- protect the interests of patients who have life-threatening conditions not related to the cause of surge.
- 3.7 The impact and decisions set out in the escalation levels below aim to ensure the continued provision of treatment for life limiting/threatening conditions (including P1 and P2) for as long as possible.

#### **Table 1: Surge thresholds and action**

Please note this table reflects existing published language and descriptors.

|                      | CRITCON &<br>OPEL   | Descriptor  | Actions  |
|----------------------|---|---|--|
| Pre-surge<br>Sustain | Majority of units reporting CRITCON 0 to 1                | <ul> <li>&lt;100% of baseline beds occupied and &lt;50% of baseline beds occupied by patients requiring cohorting for any reason</li> <li>Treatment available and supply is greater than demand</li> <li>Normal, able to meet all critical care needs, without impact on other services</li> <li>Typical winter levels of capacity transfer and other overflow activity.</li> </ul>   | System and regional action  - None except for usual monitoring via ODNs  - ODNs must ensure DOS is updated twice daily by Trusts within Network and region  National action  - No national input required  |
| Surge<br>Monitor     | Majority of units reporting CRITCON 2 OPEL 1 <sup>5</sup> | <ul> <li>Up to 100% of baseline beds which are staffed and occupied and implications of cohorting impacts on capacity</li> <li>Expected winter pressures</li> <li>Operating within regional winter planning assumptions</li> <li>Some usual high dependency unit (L2) beds may be converted to L3</li> <li>Enhanced Care beds are used optimally (if available)</li> <li>Usual funded critical care capacity full. Some capacity transfers</li> </ul> | <ul> <li>Trust actions</li> <li>May require redeployment of support staff to enable cohorted capacity and increased acuity of patients and maintain acceptable staffing ratios.</li> <li>Potential temporary reduction in elective surgery activity</li> <li>Peri-operative pathways altered for some lower acuity patients to be cared for outside of level 2/3 adult critical care settings</li> <li>System and regional actions</li> <li>UEC monitoring and reporting of capacity and demand within Trusts and systems as part of usual winter pressures process</li> <li>Consider standing up local Critical Care monitoring and reporting arrangements at regional level such as the Cell structures defined in the NHS Resilience structure</li> </ul> |

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<sup>&</sup>lt;sup>5</sup> NHS England » Operational Pressures Escalation Levels (OPEL) Framework 2023/24

| Adult Critical                | Care Surge Plan Guidai   | nce (December 2023)   |  |
|-------------------------------|--|---|--|
|                               |  |   | <ul> <li>Regions preparing to increase capacity to meet regional surge plan levels</li> <li>National action</li> <li>Critical Care Capacity Panel (CCCP) meetings in place</li> <li>Monitoring of interdependent services</li> <li>Consideration of any cross-region capacity transfer requests</li> </ul>   |
| Escalation<br>Protect         | Majority of units declaring CRITCON 2 and an increasing number of units declaring CRITCON 3 OPEL 2 | <ul> <li>- 100% to 150% of capacity occupied</li> <li>- Exceeding expected winter pressures</li> <li>- Expanded in to enhanced care areas or expanded into next identified surge area</li> <li>- Usual funded critical care capacity full – overflow into quasi-critical care areas or identified surge areas</li> <li>- Increased conversion of L2 to L3 beds</li> <li>- High level of non-clinical transfers</li> <li>- Trusts beginning capacity transfers and other mutual aid</li> <li>- Treatment currently available within the system utilising surge areas in trusts but majority of units maybe declaring CRITCON2</li> <li>- There may be pressures on critical care resources, e.g. Renal replacement therapy or particular medicine</li> </ul> | <ul> <li>System and Region actions</li> <li>Regional Command and Control structures in place</li> <li>Cancellation of elective surgery in line with clinical prioritisation to commence</li> <li>Capacity transfers and other mutual aid across systems and within regions</li> <li>Surge beds to be used optimally</li> <li>Critical care cells meeting regularly</li> <li>Enhanced monitoring and reporting by ACC commissioners and UEC winter teams</li> <li>Daily submission of Regional transfer requirements</li> <li>Daily reporting and review of ACC occupancy at a system and regional level</li> <li>Maintaining acceptable staffing ratios through redeployment of non-critical care staff although these may not be GPICS<sup>6</sup> compliant</li> <li>National actions</li> <li>Increased national and regional commissioning input may be required</li> <li>national Critical Care Capacity Panel (CCCP) to provide strategic direction for inter-regional capacity transfers</li> </ul> |
| Heightened escalation Control | Increasing number of tertiary units reporting CRITCON 3  | 150% to 200% of capacity occupied  - Expanded into identified suitable surge areas AND  - Expanded into non-conventional areas (if applicable) OR   | System and Region actions  - Regional Command and Control structures in place  - All non-life threatening/lifesaving elective inpatient surgery to stop.   |

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<sup>&</sup>lt;sup>6</sup> gpics-v2.pdf (ficm.ac.uk)

| Incident Level 4 | Some units at risk of moving to CRITCON 4  OPEL 3 | <ul> <li>In final expansion area (for local escalation)</li> <li>Expansion into non-critical care areas (eg wards) and/or use of paediatric facilities for adult critical care where appropriate.</li> <li>Trust operating at or near maximum physical capacity.</li> <li>Maximum capacity transfers between Trusts, with network and regional NHSE co-ordination.</li> <li>The prime imperative in CRITCON 3 is to prevent any single trust entering CRITCON 4</li> <li>CRITCON 4:</li> <li>Resources overwhelmed. Possibility of triage by resource (non-clinical refusal or withdrawal of critical care due to resource limitation).</li> <li>This must only be implemented on national directive from NHSE and in accordance with national guidance.</li> <li>Treatment available but in very limited supply across a region. Systems unable to maintain segregation and to continue priority elective work.</li> <li>Inter-system mutual aid and capacity transfers are required, facilitated by Regional Transfer sub-group. Capacity may soon be exceeded if demand increases further.</li> <li>Full use of surge staffing ratios and cross skilling</li> </ul> | <ul> <li>Review of prioritisation and cancellation of some specialist elective surgery</li> <li>Mutual aid and capacity transfers across systems to maintain urgent activity.</li> <li>Daily identification of suitable patients for inter-regional transfer by regions under surge (as per guidance)</li> <li>GPICS staffing ratios may not be maintained in some clinical areas (eg multi-bed cohorted areas) (see footnote <sup>11</sup>) National action</li> <li>Escalation of need for inter-regional capacity transfers to decompress multiple hospital sites</li> <li>Enhanced monitoring and reporting will be in place</li> <li>Enhanced national and regional commissioning support will be required.</li> <li>Monitoring and co-ordination of escalation of interdependent services</li> <li>Potential for devolved nation engagement for mutual aid and capacity transfers</li> <li>Increased frequency of CCCP meetings</li> </ul> |
|------------------|---|--|--|
|------------------|---|--|--|

- 3.8 In particular, this guidance requires:
  - adult critical care units to submit information on their bed capacity through NHS Pathways <u>Directory of Services</u> (DoS) twice daily at 8am and 8pm
  - regional surge plans to be in place which include a mechanism for the identification of current available capacity and potential surge capacity at trust level, to inform the process of rapid escalation
  - groups of adult critical care units to work jointly together through a
    networked approach co-ordinated by regional critical care cells and adult
    critical care operational delivery networks (ODNs); the use of local 'bubbles'
    or joint working systems between trusts may be appropriate
  - regions and ICSs to be assured that all adult critical care units and trusts in their locality have adequate escalation and business continuity plans in place. These plans are required to have clear escalation triggers to NHS Resilience structures and are co-ordinated at a regional level by regional critical care cells.
  - ACC services to work with relevant other services, including Paediatric
    Critical Care services and Children and Young People Operational Delivery
    Networks, to ensure that surge plans are developed which consider if and
    how reciprocal support will be provided in the event of "Protect" escalation
    being reached (table 2).

# Alignment with system, regional and national incident management

- 3.9 Early warning triggers to help anticipate the consequences of surge should be put in place. This mechanism should take into consideration the size of the system, the bed stock, size of units, the aetiology of the need to surge and maximum potential surge capacity. The availability of suitably trained staff and readiness to respond should also be considered.
- 3.10 Ongoing acute surge of all types is best managed via the urgent and emergency care (UEC) teams in systems. Escalation in systems tends to flow from critical care cells, to UEC teams, to NHS Resilience teams.
- 3.11 NHS Resilience teams are key to assisting hospitals in the management of surge in acute demand. Clinicians and managers should understand how and

- when to communicate with and escalate concerns to NHS Resilience. ODNs and regional critical care cells act as a conduit to ensure a co-ordinated regional response. Begin dialogue with regional NHS Resilience before the consequences of surge begin to limit the hospital's capacity to deliver care.
- 3.12 Regions and systems will use the NHS Resilience structures to ensure escalation through the levels is understood and enacted consistently; and to ensure mutual aid and capacity transfers are enacted appropriately.

## 4. Inter-regional mutual aid

- 4.1 Any region can make a request to the national critical care capacity panel for inter-regional mutual aid and/or capacity transfers as part of the surge escalation process. These will be considered by regional comparison of key criteria including:
  - Critical care occupancy.
  - Surge capacity and potential to increase surge provision.
  - Staffing ratios.
  - Tertiary and specialist occupancy.
  - CRITCON score.
  - Local intelligence, including the balance of emergency vs elective activity.
- 4.2 If transfers be agreed, the process outlined in the national service specification for adult critical care transfer will be enacted.

## 5. Impact on elective activity

- 5.1 During periods of heightened pressure, the NHS sometimes makes decisions to postpone elective activity and redeploy staff to support other services, including the sickest patients in adult critical care. These decisions should be made at a system level in discussion with NHS England and NHS Improvement regional teams, and should consider that:
  - a. elective activity priorities must be determined across a system and applied to the system as a whole and not as single sites

- b. the system approach may relocate some or all elective activity to other providers within a system, including the independent sector.
- 5.2 Clinical validation of waiting lists should be undertaken when elective activity is impacted and should be regularly reviewed.
- 5.3 All reasonable efforts should be taken to preserve P2 elective activity during times of increased ACC demand, including use of critical care transfer services and surge capacity. Local protocols should be developed to support continued delivery of P2 surgical care during periods of emergency surge.
- 5.4 The prioritisation categories are based on the prioritisation tool produced by the Federation of Surgical Specialty Associations (FSSA) and endorsed by all surgical colleges. The prioritisation of elective surgery should continue to be carried out at trust level based on <a href="FSSA guidance">FSSA guidance</a>

### 6. Workforce considerations

- 6.1 Workforce of all specialties including medical, nursing, pharmacy and allied health professionals are integral to the implementation of any surge plan. As such, consideration of the ability to flex staffing levels<sup>7,8</sup> to meet rising demand while maintaining safe, quality care for patients is central to implementing this guidance.
- 6.2 Key considerations are:
  - a. the need to maintain safe staffing
  - b. the availability of suitably trained staff, equipment, and specialist supplies
  - c. ensuring all critical care nurses are trained and competent to care for level 3 patients to build flexibility within the workforce to meet increased casemix acuity within the unit

 $<sup>^{7} \</sup>underline{\text{https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/12/C0833\_advice-on-acute-sector-workforce-models-during-COVID\_with-apps\_10dec.pdf}$ 

<sup>8</sup> https://www.baccn.org/static/uploads/resources/UKCCNA position Sep 2021 FINAL.pdf

- d. redeployment of support staff and non-critical care staff, to enable cohorted capacity, and to meet increased demand in number or acuity of patients.
- 6.3 Surge conditions can contribute to poor mental health and wellbeing in critical care staff and surge support staff. Support should be in place to provide mental health and wellbeing support, including highlighting local, regional and national resources. Means of accessing local psychology and mental health services should be highlighted.
- 6.4 Primary prevention of mental health and wellbeing challenges may be supported by ensuring training and support is provided to surge staff, ensuring time is provided for debriefs and reflection even during surge conditions, and enabling mental health support staff within units (eg professional nurse advocates) to deliver their duties.

## 7. De-escalation and debrief

7.1 As pressure and demand on adult critical care services reduces there should be a clear staged approach to de-escalation across systems and the production of lessons learnt documentation for cascade.

An essential part of this process is to ensure all staff can participate in reflective debrief sessions to identify good practice and set out opportunities for learning, as well as to ensure staff are able to access health and wellbeing support.

Feedback from the debrief sessions should be used to update plans to ensure continuous improvement and ideally lead to a reduction in future occasions where escalation plans need to be activated.

## 8. Interdependent services

8.1 It is recognised that there are complex interdependencies between adult critical care and other services, which require close oversight and coordination at a national, regional and system level (eg ECMO or PICU).

- When one service is experiencing increased demand, it is likely that other or all services will be under the same level of increased pressure.
- 8.2 The co-ordination of capacity for interdependent services is a responsibility of the national adult critical care capacity panel. As such capacity and demand for the interdependent services will be reported by regions to this group, escalating concerns at the earliest opportunity. This will enable the coordination and prioritisation of staffing resource and estate capacity to maintain equitable service provision.
- 8.3 Plans have been developed for the six interdependent specialised services which would provide direct care to a rapidly rising number of patients within an adult critical care setting, in a surge scenario. They are listed here and links to further information are included.
  - a. Respiratory extracorporeal membrane oxygenation (ECMO)
  - b. Renal replacement therapy in critical care
  - c. Burns
  - d. Paediatric intensive care
  - e. Adult transfer services
  - f. Solid organ transplant services.

## 9. Supporting information

- 9.1 OPEL and CRITCON score and definitions
  - OPEL definitions
  - CRITCON definitions

## 10. List of key stakeholders

10.1 The adult critical care clinical reference group would like to acknowledge the significant contributions and support offered by key stakeholders in developing this updated document.

| Organisation   |
|--|
| UK Critical Care Nursing Alliance                              |
| Faculty of Intensive Care Medicine                             |
| Intensive Care Society   |
| Royal College of Anaesthetists                                 |
| NHS England Regional Medical Directorates                      |
| NHS England Specialised Commissioning Team (national)          |
| NHS England Specialised Commissioning Regional teams           |
| National and Regional Heads of NHS Resilience                  |
| National Clinical Director for Critical and Perioperative Care |

## 11. Glossary

| Adult critical care          | As set out in ICS Consensus statement included on page 3  | Baseline beds        | The total number of adult critical care beds usually commissioned   |
|------------------------------|---|----------------------|---|
| Capacity                     | The total number of staffed beds which could accept a patient requiring critical care   | Capacity<br>transfer | The transfer of a patient for non-clinical reasons to create capacity for other patients.   |
| Casemix                      | The clinical profile of patients within a service   | Clinical transfer    | The transfer of a patient for clinical reasons  |
| Critical care capacity panel | National meeting to oversee management of critical care capacity across regions and cross regional mutual aid.  Decision making informed by community infection rates, adult critical care data, interdependent service demand and capacity and availability of resources including equipment | Critical care cells  | Provide regional oversight of operational delivery and are the first escalation point within systems. The membership includes ODNs, medical leads and commissioners. This group reports in to UEC and NHS Resilience structures |
| Decompression                | This includes a range of measures to reduce the pressure on capacity within a Critical Care unit or system.   | NHS Resilience       | Emergency Preparedness Resilience and Response teams as set out in https://www.england.nhs.uk/ourwork/eprr/gf/  |
| Local<br>escalation<br>plans | Plans that are agreed by leaders at a system or regional level  | Mutual aid           | Sharing of resources between units, hospitals, trusts, systems, or regions. This may include staff redeployment, sharing of medicines or  |

|                          |  |                                      | equipment. It may also include the transfer of patients from one unit to another to better balance service pressures   |
|--------------------------|--|--------------------------------------|--|
| Normal clinical pathways | Existing treatment and care process for patients that have not been implemented solely as a response to the pandemic   | Operational Delivery Networks (ODNs) | Commissioned to provide co-ordination and oversight of adult critical care within systems (or specified regional areas). Reporting into Critical Care Cells and regional NHS Resilience structures |
| Surge                    | Increasing capacity beyond usual footprint to meet increasing demand   | Staffing ratios                      | As set out in GPICS published guidance   |
| Secondary care           | Secondary care, which is sometimes referred to as 'hospital or acute care', can either be planned (elective) care, or urgent and emergency care (non-elective) | System first                         | Decisions made at a local level within an Integrated Care System as the first level response   |
| Tertiary<br>services     | Tertiary care refers to highly specialised treatment   | Very high local surge                | 100% baseline capacity occupied with no discharges in the previous 24 hours  |