**Rapid Response (requiring sudden escalation of critical care capacity)**

Such a response would be required in the event of a mass casualty incident defined by NHS England as;

“An incident or series of incidents causing casualties on a scale that is beyond the normal resources of the emergency and healthcare services’ ability to manage.” [NHSE (2017) Concept of Operations for Managing Mass Casualties](https://www.england.nhs.uk/publication/concept-of-operations-for-the-management-of-mass-casualties/)

By definition, such events have the potential to overwhelm or threaten to exceed the local capacity ability to respond, even with the implementation of major incident plans.

In the event of a major incident the response required will be determined by:

• The number of casualties

• The severity of injuries

• The complexity of injuries

**Escalation Stages for Critical Care ‘Rapid’ Response**

Rapid response refers to mass casualty situations, which is distinct and separate from ‘rising tide’ surge situations (e.g. Influenza outbreaks)

‘Ripple’ principle

NHS England North East & Yorkshire Region will identify the process for implementation as part of its mass casualty plans. Escalation decisions will be made by relevant NHS Strategic (Gold) Commanders, and will move through the stages as described below in a staged manner in response to critical care demand to minimise disruption of elective activity. CEOs of organisations are accountable for the implementation of escalation processes within their own organisations.

The Critical Care Networks and professional critical care nursing organisations recognise there may be unavoidable impacts on organisational staffing ratios during times of escalation (CC3N 2020).

Trusts designated to receive casualties directly from the scene will activate their own Major Incident plan. The critical care component of this plan must be explicit and the scenario rehearsed. Action cards for the designated critical care roles must be readily available.

In a situation where there are large numbers of children requiring critical care and PICU services are overwhelmed, children over 12 may need to be admitted to adult critical care.

**Stage 1 - Surveillance**

In Stage 1 it is expected there will be normal daily activity and organisational pressures.

The trigger to move to Stage 2 will occur when there is indication of a significant event associated with mass casualties within NEY OR intelligence indicates that an incident inside or outside NEY is highly likely. Preparation should be made for the initiation of Stage 2.

**Stage 2- Standby**

Trusts should be prepared to activate Adult Critical Care Surge and Escalation Plans which will include the actions described in the NEY Operational Framework for Critical Care (below).

**Stage 3 - Mass Casualty Incident Declared**

The trigger to move to Stage 3 will be activated by NHS England North East & Yorkshire Region and will be commenced when mass casualty patients are expected to be received anywhere within the North East & Yorkshire footprint. Due to the size of NEY this may require a staged approach to standing up Trusts.

The actions should be initiated described in the action card should be initiated with immediate effect in trusts that are expecting to accept admissions from the incident. Trust geographically at a distance from the incident will remain on standby to await further direction from NHS North East & Yorkshire Gold Command.

**Stage 4 - System Overwhelmed**

In the event of overwhelming patient numbers exceeding the capacity expansion, difficult clinical and ethical decisions will be required to triage critically ill patients. Such decisions should where possible be made collectively by more than one senior clinician. External advice could be sought from the respective Network Medical Lead, or National Critical Care Leads.

External communication may be hampered during mass casualty scenarios as mobile phone networks may not be functional. Each Trust should be prepared for this within their action plans.

• Throughout the tiered phase of escalation of critical care capacity all staff should work within their professional code of conduct as documented by their regulatory authorities (NMC, GMC).

• It may be necessary to implement early identification of patients whose care will not be escalated in the event of further deterioration, to limit the availability of complex life support measures and the number of drugs that may be delivered by infusion.

• Communicating such decisions will be via the NHS England North East & Yorkshire Region processes. The usual telephone communication links may well be compromised during mass casualty scenarios, and all should be aware of the alternative communication methods identified within local trust plans.

**De-Escalation**

There is recognition of the need for organisations to return to normal function as soon as possible to enable everyday Trust activity; this should not impact negatively on the ability to provide mutual aid across the Yorkshire &Humber in the event there are continuing localised pressures. It is important that local identification and discussions on the ability to de-escalate is directed by NHS England North East & Yorkshire Region (Strategic Gold Command). If any organisation or individual requires clarification about implementation at any stage this should be sought from the NHS England North East & Yorkshire Region EPRR Lead at the earliest opportunity to assure effective, equitable use of limited resources across the health economy.

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| **North East & Yorkshire Operational Frameworks for Critical Care Rapid Response to a Mass Casualty** **Involving a significant number of patients requiring Adult Critical Care – Action Card** |
| **CRITCON SCORES**   | **Descriptor**  | **Action Required** | **Action Outcome**  |
| **Stage 1 - Surveillance**Majority of units reportingCRITCON 0 to 1 | * < 100% baseline beds occupied
* Treatment available and supply greater than demand
* Able to meet all critical care needs without impact on other services
* Typical levels of non-clinical transfers and other overflow activity
 | **Acute Trusts – Adult Critical Care Services**1. Update DOS Bed Capacity Management System (CMS) 12 hourly.2. Ensure systems are in place to enable Adult Critical Care Units to access paediatric equipment if required 3. Adult Critical Care Networks in NEY to monitor daily critical care bed activity using the DOS Bed Capacity Management System (CMS).4. Adult Critical Care Networks in NEY to monitor Inter-Network critical care transfers. | Provides up-to-date position of bed capacity in each critical care service in the Adult Critical Care Networks across NEY |
| **Trigger to move to Stage 2:** Indication of a significant event associated with mass casualties within the North East & Yorkshire OR Intelligence indicates that an incident inside or outside the North East & Yorkshire is highly likely. The trigger to move to Stage 2 would come directly from the scene of the incident is likely to be given by the attending Ambulance Service in charge at the scene. The geographical locality of the incident and intelligence from the scene on anticipated casualties will inform and determine which Critical Care Network will move to Stage 2.Actions to be initiated with immediate effect |
| Critical Care **Stage 2 - Standby**Majority of units reportingCRITCON 0 to 1 | • < 100% baseline beds occupied • Treatment available and supply greater than demand• Able to meet all critical care needs without impact on other services• Typical levels of non-clinical transfers and other overflow activity | **Acute Trusts – Adult Critical Care Services**Prepare to activate Adult Critical Care Service Surge and Escalation Plans which will include the following actions:1. Consider arrangements to increase Level 3 capacity by 100% for the next 96 hours in the event an incident is declared2. Undertake immediate review of all current critical care patients and where possible discharge to a lower level of care and identify those that could be stepped down to a lower level of care or who would not ultimately benefit from escalation of care should their clinical condition deteriorate3. Identify patients who still require critical care but could be transferred to another clinical area to continue critical care management or another critical care unit. This will dependent on transfer capability. Adult Critical Care Transfer services (ACCTs) may be utilised where they exist; the NE is currently covered by NECTAR, Y&H do not have a commissioned ACCTs. 4. Liaise with Trust Incident Command Centre (ICC) to identify the theatre position and/or any other potential critical care admissions5. Prepare to suspend all elective surgical programmes requiring critical care on instruction from NHSE.6. Identify additional resources that may be required including requirements to manage children on adult units.**Critical Care Networks in NEY**Critical Care Network teams will provide support as and when required by NHSE (during normal office hours). | Be prepared to increase overall Level 3 Adult Critical Care Capacity in the Network involved in the mass casualty by 100%Critical care capacity maximised including Level 2 beds converted to Level 3, and Level 3 capacity in other areas of the hospital, as identified in Trust plans, converted.Level 2 capacity may be reduced due to conversion to level 3 capacity, determined by case mix.Theatre availability maximised. Therefore critical care escalation into these areas may not be possible.  |
| **Trigger to move to Stage 3:**  as activated by NHSE Gold Command: Commenced when mass casualty patients are expected to be received anywhere within a Network footprint and may require admission to critical care. The geographical locality of the incident and intelligence from the scene on anticipated casualties will inform and determine which acute trusts will move to Stage 3. The trigger to move to Stage 3 would come directly from the scene of the incident is likely to be given by the attending Ambulance Service in charge at the scene. Patients will be moved from the scene using dispersal grids agreed in the respective EPRR Mass Casualty Frameworks. REFActions must be initiated with immediate effect |
| Critical Care **Stage 3 - Mass Casualty Incident Declared** **CRITCON 2/3**  | * Units identified to receive causalities to increase Level 3 capacity by 100%
* Incident casualties received on critical care units
* Moving to a position where all additional capacity is full
* Expansion in to none critical care areas
* Use of paediatric facilities for adult critical care patients
* Maximum mutual aid between trusts, networks and Regional /National coordination
 | **Acute Trusts – Adult Critical Care Services**1. Activate your Mass Casualty/Major Incidents Plans2. Prepare to receive mass casualty patients requiring critical care and/or critical care patients either direct from scene or from other facilities as part of the ‘ripple’ effect.3. Secure critical care facility as part of the Trust’s lock-down and consider asking visitors to leave if safe to do so.4. Enact your escalation plan to double your level 3 capacity for the next 96 hours with the associated requests for staffing, consumables and equipment escalated to the Trust Incident Command Centre (ICC) where the department cannot source in house. 5. Adult Critical Care Services accepting children 12 years and over to obtain support from general paediatric colleagues and regional paediatric intensive care services. 6. Plan transfer of patients who need to be moved to alternative Adult Critical Care Units, which may be within the NEY footprint or beyond the NEY geographical boundaries as part of mutual aid arrangements. Adult Critical Care Transfer services may be utilised where they exist.7. Ensure that any concerns around capacity to receive are escalated early to your organisations Incident Control Centre (ICC) in order that they can liaise with NHS England and Ambulance Service around any further receipt of casualties/patients.  | Other NEY Network Hospitals including Independent Sector Hospital sites to review critical care capacity, thereby creating additional beds in event of mutual aid being requestedTrusts designated to receive mass casualties directly from the scene will have reduced critical care staffing therefore may be required to implement emergency staffing ratios.  |
| **Trigger to move to Stage 4**: Overwhelming patient numbers which exceeds all identified critical care expansion capacity across the North East & Yorkshire and mutual aid from beyond the region has been exhausted.  |
| **Critical Care****Stage 4 - System overwhelmed****CRITCON 4** | * All additional critical care capacity overwhelmed
 | In the event of overwhelming numbers of patients requiring critical care, difficult clinical and ethical decisions will be necessary. This should be undertaken collaboratively between a numbers of senior decision makers.It may be necessary to implement early identification of patients who will not ultimately benefit from escalation of care should their clinical condition deteriorate furtherThe principle of “Reverse triage” may be required. This must not be implemented unless authorised by NHS England Medical Directors Clinical Cell and will only be implemented once ALL available critical care capacity is exhausted | Situational review processes should be in place to address difficult decision making, including immediate and after event debriefs. Critical care staff should have access to counselling and peer support groups. |
| **De-escalation** | * Patient numbers reducing
* Returned to base line beds
* Returning to normal staffing ratios
* Repatriation of patients taking place
 | Trusts will de-escalate additional critical care beds once there is evidence that this action will not impact negatively on the ability to provide mutual aid across the North East & Yorkshire. Debriefing to be available to all staff  | Staged return to business as usual |