GIG CYMRU NHS WALES

Rhwydwaith Gofal Critigol a Thrawma Cymru
Wales Critical Care and Trauma Network

Principles for Critical Care Mutual Aid during the Covid-19 Pandemic

This paper sets out the principles for agreeing mutual aid within the Network and carrying out transfers for capacity reasons for the duration of the Covid-19 pandemic.

Mutual aid is likely to be needed in situations of escalating demand or dwindling resources that require a coordination of assets and external support. Mutual aid agreements may include staff, equipment, transfer of patients where clinically appropriate and safe to do, services and supplies. This may include the equitable scaling back of activity to provide mutual aid that maintains patient safety.

The basis of these mutual aid principles is equitable access to critical care for all patients in Wales, irrespective of locality or diagnosis. No unit or health board is placed under disproportionate pressure than any other unit when these risks can be mitigated.

Mutual aid is requested and accessed as part of a shared escalation process across the system; decision making should reflect the scope of the organisations involved and the potential impact on organisations that cover a wider geography.

Thresholds for critical care escalation
The table below sets out the proposed escalation levels to be adopted through the second surge.

Critcon Level	**Escalation level**	**Description**	**Escalation Stages**		**Impact**
Critcon 0	1	Normal Critical Care bed stock in use	Stage 1	Intensive care unit (L3) beds use only	None
Critcon 1	2	Level 2 beds converting to level 3	Stage 2	“Usual*” high dependency unit (L2) beds converted to L3, still in “Usual” CCU.	Reduction in elective patient surgery to ensure theatre staff mobilisation into critical care

<table>
<tr><td rowspan="2">Critcon 2</td><td>3</td><td>Enhanced care beds converting to critical care</td><td>Stage 3</td><td>Expanded in to enhanced care areas i.e. critical care patients in EC areas (if applicable) or expanded into next identified surge area (non-critical care location outside theatre suites)</td><td>Cancellation of elective surgery in line with local agreement

Mutual aid across system</td></tr>
<tr><td rowspan="3">4</td><td rowspan="3">Surge beds in use for critically ill patients</td><td>Stage 4</td><td>Expanded into theatre/recovery areas</td><td rowspan="3">All elective inpatient surgery to stop. Specialised elective surgery also impacted upon. Mutual aid across systems.</td></tr>
<tr><td rowspan="2">Critcon 3</td><td>Stage 5</td><td>Expanded into non-conventional areas (if applicable)</td></tr>
<tr><td>Stage 6</td><td>In final expansion area (for local escalation)</td></tr>
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Notes:

- Nurse patient ratios to remain as per GPICs standards in escalation levels 1&2, this may require the use of NHSP shifts to maintain these ratios
- Once escalation level 3 reached, ratios to stretch to 1:2 for level 3 patients and 1:4 for level 2 patients. At this level of escalation support from non-critical care nurses/team working must be enacted in health board.
- Definitions of Critcon levels in Appendix 2

There must be appropriate operational oversight processes and health board must demonstrate that:

1. All inpatients who are ready for discharge are being discharged swiftly and appropriately, supported by a positive risk-taking approach.
2. Appropriate and effective admission avoidance pathways are in place so that all care that can be undertaken outside of a hospital setting is optimised.
3. Active flow management of urgent and emergency care is in place.
4. Active management of theatre and critical care capacity is in place.
5. Available workforce is deployed efficiently and effectively, taking account of staffing guidelines.

In order to maximise critical care capacity, it may be necessary for health boards to uniformly suspend elective activity that may require critical care services post-operatively or to enable staff to be redeployed to support critical care. Suspension of elective activity should be implemented (as clinically appropriate) on the following phased basis:

- Step 1 – temporary cancellation of all elective non-life threatening surgery (with the exception of major oncology, cardiothoracic, vascular and

neurosurgery) where it is expected the patient will require critical care support in the immediate post-operative period

- Step 2 – as step 1 but including temporary cancellation of all elective non-life threatening neuro, vascular and cardiothoracic surgery where it is expected the patient will require critical care support in the immediate post-operative period
- Step 3 – as step 2 but including temporary cancellation of all elective surgery including major oncology, cardiothoracic, vascular and neurosurgery where it is expected the patient will require critical care support post-operatively.

Each critical care unit/health board must have agreed, detailed escalation plan in place and arrangements to escalate any immediate support (that is needed within the next 24 hours) and proactively plan any likely mutual aid requirements in the next 48 hours to 7 days.

Trigger point for Request for Regional or National Mutual Aid
In order to maximise capacity before any mutual aid is considered, it is expected that all health boards, will be able to demonstrate they have enacted the following sequential steps in response to their escalating position:

1. Accelerated discharge of patients supported by positive risk taking.
2. Increased their own capacity by opening any closed wards with available staffing and equipment.
3. Postponed non-urgent elective care (P3 and P4) including outpatients to enable the release of staff and to create bed capacity to support both themselves and partner trusts in their system.
4. Re-deployed clinical staff from non-patient facing roles to support wards and stood down where possible any non-clinical time in job plans and training.
5. Reduced staffing ratios to open all on site beds following appropriate risk assessments.

For requests for regional mutual aid, once the escalation level within a health board reaches escalation level 3 and CRITCON 2 and take appropriate mitigating actions as set out above.

For request for national mutual aid, as above and when there is no ability to manage the offer of mutual aid on a regional basis.

Trigger point for Request for Cross-border Mutual Aid
Health boards at escalation level 4 and CRITCON 3. All capacity within Wales has been mobilised to deliver surge capacity that maintains optimum access to urgent and emergency care to all patients who require it.

A protocol for how to access cross border mutual aid can be found at appendix 3.

Network arrangements for agreement of mutual aid

- **Staffing mutual aid**

Due to high rates of sickness, self-isolation and shielding, there has been little opportunity to move staff between organisations to support the response to Covid-19. However, agreed processes are in place for movement of Agenda for Change

staff are set out in the NHS Confederation document detailing processes for redeployment here.

Where it is necessary to redeploy medical staff, Health Boards can use honorary contracts. The Network has a copy of the South Wales Trauma Network honorary contract template for the purpose.

- **Patient mutual aid**

The Network chairs a daily conference call at 9.30am to discuss capacity and agree transfers for capacity reasons. The terms of reference for this group are at appendix 1. This sets out the escalation process if conflicts in priority arise and cannot be resolved with a purely clinical discussion.

At times, it may be necessary to transfer critically ill patients between hospitals for non-clinical reasons in order to make best use of available capacity and ensure equitable provision of critical care. Transfers should be performed according to the Welsh Guidelines for the Transfer of the Critically Ill Adult (2018).

Requests and decision making regarding mutual aid must be managed transparently and documented.

Principles for Critical Care Mutual Aid

The following principles should form the basis for decision making in the transfer of critically ill patients to ensure sufficient capacity to meet increased demand.

1) All patients should have equitable access to critical care if required.
2) Staff are not placed under sustained, high levels of strain disproportionately between units or health boards.
3) The proposed destination hospital should be able to meet the care requirements for the individual patient transferred.
4) The transfer can take place safely, with minimal risk to the patient.
5) The only circumstances in which transfers take place is to maintain or undertake clinical activity otherwise compromised in the referring hospital, posing a risk to patient safety. The activity in question must be of sufficient urgency or importance to justify the risk to the patient proposed for transfer. Likely justifiable reasons include enabling admission of emergency patients or non-emergency surgery for potentially life-threatening conditions. The decision is made on a case by case basis by the responsible clinical team
6) Decompression of units ensures safe provision across a system of critical care, irrespective of whether this is for COVID-19, emergencies or elective patients requiring critical care.
7) Elective activity priorities must be determined across a system and applied to the system as a whole and not as single sites.
8) Treatment strategies have changed for COVID-19, it is likely that many if not all of these patients will have a trial of CPAP prior to intubation. It is not ideal to transfer patients on CPAP due to the increased exposure risk for staff involved in transfer.

9) Intubated COVID-19 patients may have a period of respiratory and/or cardiovascular instability at the start of their treatment and this should be given due consideration when planning patient transfers.

10) If sites are not decompressed, it is likely that staffing ratios would be diluted in order to continue to deliver the different pathways on those sites or elective patients would need to be cancelled on a specific hospital or health board.

11) The pre-pandemic principles for capacity transfer (i.e. the most recent admission transferred), can no longer apply under these circumstances.

12) Transferring current, stable patients may be more clinically and ethically appropriate than the next patient accepted for critical care. Those patients remaining in high volume units may be exposed to staffing ratios below current GPICSv2 standards. Patients being transferred from a unit in considerable strain may receive better quality care and outcomes following their move to a unit under less pressure.

13) These transfers should be undertaken in a planned manner in daylight hours following agreement at the daily capacity call and using resources allocated by the Critical Care Hub as set out below:

- Once the bed availability at the referring and accepting unit is confirmed please contact the ECCH on **0300 123 2301.** The ECCH will coordinate the following scenarios, please inform the desk what you require when you call.

  i. Time critical transfers as per normal process utilising the Consultant lead EMRTS Critical Care team
  ii. Utilisation of the south or north wales transfer ambulance provided with WAST (using the transfer team from the accepting or referring hospital)
  iii. Provide a separate Registrar led transfer team utilising either a WAST vehicle or the transfer ambulance if available (discussed with transfer lead/EMRTS TC consultant)
  iv. Plan/facilitate long distance transfers using HM67 platform with Registrar led transfer team for longer moves within and outside Wales. Ideally these moves will require advance notice the day before and will be discussed with transfer lead/ TC consultant)

14) Ambulance transfers should be the preferred mode of transfer wherever practical and possible. However, for long-range transfers (ie. those exceeding two and a half hours) transfer by aircraft should be considered.

15) The decision on appropriate patients for transfer is made on a case by case basis following discussions between clinicians within units and in the receiving unit.

16) Staff in the transferring unit clearly explain the reason for transfer with honesty to the patient and family/next of kin. There is a clear process in place for the circumstance in which a patient or their close family disagrees with such a transfer and that process is made known to the patient and their close family. ICS have published a statement[1] on ethics of transferring critical care patients.

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[1] https://www.ics.ac.uk/ICS/ICS/News_Statements/Inter_hospital_transfers_220121.aspx

17) The shortest distances for transfers are the ideal and should be the primary intent.

18) Critically ill patients should be moved as few times as possible and critical-care-to-critical-care repatriations should only be carried out after the conclusion of a specialist episode of care in a tertiary centre, in circumstances of extreme pressure in the receiving hospital, or for some other clinical or non-clinical benefit for the patient.

19) Patients transferred between health boards for capacity reasons should ordinarily complete their critical care episode prior to repatriation at ward-level.

20) Delayed discharges are a contraindication to mutual aid transfers (ie. should be zero tolerance). Delayed transfers of care exceeding 24 hours should have been transferred out to a suitable ward area prior to transfer requests being enacted.

Clinical Criteria

The following inclusion and exclusion criteria should ***be considered*** by referring clinicians:

	Inclusion	**Potential Exclusion**
Anticipated critical care length of stay	≥3 days	<3 days Potential for withdrawal of life-sustaining treatment being actively considered
COVID status	Positive Negative (within last 24 hours)	Unknown Awaiting result
Weight	≤120kg	>120kg
Airway	Intubated / tracheostomy	
Breathing	$FiO_2 \leq 0.8$; $SaO_2 \geq 90\%$ PIP <35; PEEP ≤12, stable trajectory	$FiO_2 > 0.8$ Requiring APRV to maintain adequate gas exchange HFNO/CPAP/NIV
Circulation	HR ≤120 Stable vasopressor requirement	Haemodynamic instability Very high or escalating vasopressor requirement
RRT	If required	
Specialty input		Cannot be provided in receiving hospital Complex multi-specialty input
Transfer		Previously transferred for capacity during this admission

Appendix 1

Critical Care Daily SITREP Group
Terms of Reference

Introduction

The Wales Critical Care and Trauma Network constituted daily meetings to allow critical care units to share information on capacity, occupancy and internal pressures in November 2020. Initially these meetings took place on weekdays. In January 2021, the meetings were scheduled every day, including weekends and bank holidays.

Role

The role of the group is to

- Share the validated status of each critical care unit at the time of the meeting and a projected position in 24 hours from the meeting
- Highlight requirements for patient transfers between hospitals to make best use of critical care resources across NHS Wales
- Identify hospitals with potential capacity to receive transferred patients
- Agree priority actions to balance critical care capacity pressures across NHS Wales and ensure internal and external communication procedures have been instigated
- Escalate issues which the group have been unable to resolve through internally agreed command and control structures to Health Board executives and the National Risk Huddle as appropriate

Responsibilities

Members of the group will

- Share capacity, occupancy, staffing and other information on pressures within the unit
- Alert other organisations to important clinical developments such as outbreaks of nosocomial transmission or staff sickness
- Agree where mutual aid is required and can be offered between health boards on a clinician-to-clinician basis
- Discuss issues affecting capacity including patient numbers, deteriorating patients within the hospital and staffing issues for escalation internally via health board mechanisms
- Alert the Network Team to issues that may need to be escalated on a regional or Wales-wide basis to the National Risk Huddle
- Communicate any actions or agreements such as mutual aid back to both their unit and wider health board management

Representation

At least one senior clinician empowered to make decisions on mutual aid on behalf of the organisation will represent each Health Board.

Welsh Ambulance Service NHS Trust will have at least one representative to ensure discussion of patient transfer where required.

The Network will chair the calls and have at least one member of the team in attendance.

Welsh Government will send one official wherever possible to attend and provide feedback internally.

Frequency

Meetings take place daily at 9.30am until agreed by majority that they should cease.

Accountability and reporting

Health boards should empower those attending the meeting on their behalf with the authority to agree to the provision of mutual aid, clinicians representing health boards in the meeting are responsible for feedback any issues or agreed actions both within their unit and to escalate as appropriate within the governance arrangements for their health board.

The WCCTN or WG representative will escalate any significant or unresolved issues to the 11am National Risk Huddle chaired by the Welsh Ambulance Service Operational Delivery Unit.

Any issues unresolved from National Risk Huddle will be escalated to WG on call director and health board Chief Executives or Exec on call.

Appendix 2 - Escalation levels

The following table sets out the level of escalation within hospitals based on the availability of critical care capacity. This guidance primarily addresses CRITCON 2 and above.

Definition	Status
Normal – ***business as usual***	
• Normal, able to meet all critical care needs, without impact on other services • Normal winter levels of non-clinical transfer and other overflow activity	CRITCON 0
Low Surge – ***bad winter***	
• Usual funded critical care capacity full. Some non-clinical transfers	CRITCON 1
Medium Surge – ***Unprecedented***	
• Usual funded critical care capacity full - overflow into quasi-critical care areas (theatre recovery, other acute care areas). High level of non-clinical transfers • Health Boards beginning mutual aid	CRITCON 2
High Surge – ***full stretch***	
• Expansion into non-critical care areas (e.g. wards) and/or use of paediatric facilities for adult critical care. Health Board operating at or near maximum physical capacity • Maximum mutual aid between Health Boards with Network and Welsh Government co-ordination • The prime imperative in CRITCON 3 is to prevent any single Health Board entering CRITCON 4	CRITCON 3
Triage – ***Emergency***	
• Resources overwhelmed. Possibility of triage by resource (non-clinical refusal or withdrawal of critical care due to resource limitation) • This must **only** be implemented on national directive from Welsh Government and in accordance with national guidance	CRITCON 4
Staff declaration: CRITCON 1, 2 & 3 SHOULD BE FURTHER CATEGORISED A, B or C	
Adequately staffed for unit demands.	A
Staffing 1:2 ICU nurse to level 3. Remains 1:1 including non-ICU staff	B
Staffing below requirements for patient mix. No supernumerary nurse in charge. Staffing ratio reduced with no support staff available.	C

Appendix 3 - Protocol for NHS Wales participating in NHS England/NHS Improvement (NHSEI) Critical Care Capacity Panel

Any requests for mutual aid across Welsh/English border should be escalated up through both national Emergency Preparedness Resilience and Response (EPRR) teams and should not be made on a consultant to consultant or unit to unit basis, until or unless Wales joins the NHSEI CCCP

NHSEI Critical Care Capacity Panel (CCCP)

- Each day the Critical Care Capacity Panel meets at 10:15
- Membership is senior (Regional Medical Directors of each region or Regional Incident Directors, together with Subject Matter Experts (SMEs) on long-distance transfer and the national EPRR and Urgent and Emergency Care (UEC) Ops teams) and has authority to make and advocate requests and critique others. The CCCP is chaired by the Strategic Incident Director of the day (Keith or deputy)
- The main dataset used to inform conversations is the national Adult Critical Care dashboard, updated through the Director of Service (DoS) system. This shows free beds, covid and non-covid occupancy, NIV and Vent levels etc at a national, regional, and ITU level.
- Within each region there is daily cross-regional call with every critical care unit at 8.30am or similar time each morning - to discuss current pressures, staffing and potential future demand.
- The Regional Medical Directors then come to the CCCP with a request to transfer patient(s) out of region or offer 1 or preferably more beds in potential receiving units in major teaching hospitals in their region.
- The CCCP discusses and agrees in principle that x number of transfers should be made from region 'X' to region 'Y'.
- The National Ambulance Resilience Unit then take responsibility for operationalising the transfer, working with local clinicians from sending and receiving units – looking at:
  - Transport options
  - Staffing of clinical team
  - Clinical information exchange between units
- If the offer of beds is not agreed/taken up by 13:00 – they are released back to system

As part of NHS Wales to participate in the NHSEI CCCP:

- Wales will offer beds into the CCCP system, subject to capacity
- Provide/share SITREP, Unscheduled Care Dashboard data by hospital, health board and at an all Wales level eg. Total bed capacity, occupancy, COVID v Non-COVID occupancy levels, number of invasive ventilation and Critcon levels
- Utilise the daily critical care SITREP meetings will be used to consider and prioritise any requests
- Executive level representation, from WHSSC, will attend the meeting on a daily basis with CMO/DCMO where necessary

Requests and decision making regarding mutual aid must be managed transparently and documented. Any requests or offers of support should be sent to WCCTN.

Annex 1 – Cross Border Mutual Support Request Template

Critical Care Unit:	
Contact details of clinician or manager:	Name: Phone Number: Email:
Nature of Request:	
Clinical Risk: (Please specify)	
Anticipated duration of risk:	
Internal escalation measures already taken:	
Immediate risk mitigation measures put in place:	
Chief Executive or exec on-call approval of request:	Name: Date: Confirmed all escalation measures with health board been exhausted – YES / NO

Annex 2 – Cross Border Mutual Support Solution Template

Critical Care offering Unit:	
Contact details of clinician or manager:	Name: Phone Number: Email:
Type of support: (eg. staff, equipment, services, supplies or transfer of patient)	
Anticipated duration:	
Chief Operating Officer or exec on-call approval of offer:	Name: Date: