

Title:	Standard operating pathway for the care of a critically ill child / young person under 16 years outside of the paediatric critical care level 3 environment in extreme and exceptional circumstances
Version:	1
Supersedes:	New guideline
Application:	For all children under 16 years age

Originated By /Designation:	<p>North West (England) and North Wales Paediatric Transport Service (NWTs)</p> <p>Following request from colleagues in North West (England) and North Wales Paediatric Critical Care ODN and colleagues in the adult critical care networks in region</p> <p>Guideline authors:</p> <p>Kate Parkins, PICM Consultant NWTs</p> <p>Suzy Emsden, NWTs clinical lead & PICM consultant</p> <p>Katie Higgins, Clinical Nurse Specialist, NWTs</p> <p>Nicola Longden, Clinical Nurse Specialist, NWTs</p> <p>Amicia Hill, Band 6 Nurse, NWTs</p> <p>Emma Roach, Band 6 Nurse, NWTs</p> <p>Helen Blakesley, Network Manager North West Children's Major Trauma ODN & North West Paediatric Critical Care, Surgery in Children & Long Term Ventilation ODN</p>
Ratified by:	Paediatric Critical Care Operational Delivery Network (ODN) oversight group
Date of Ratification:	10.08.23
Ratified by:	RMCH Policies & Guidelines & Pharmacy & Medicines Management Committees
Date of Ratification:	PGC = 08.12.23 & PMMC = 08.07.24

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Responsibility of:	North West & North Wales PCC ODN

Minor Amendment (If applicable) Notified To:	
Date notified:	

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1. Detail of Procedural Document

Standard operating pathway for the care of a critically ill child / young person under 16 years outside of the paediatric critical care level 3 environment in extreme and exceptional circumstances

2. Equality Impact Assessment number (RMCH) 2023-171

3. Consultation, Approval and Ratification Process

This guideline was developed with input from:

- North West (England) and North Wales Paediatric Transport Service (NWTS).
- North West and North Wales Paediatric Critical Care Operational Delivery Network
- Representatives from the District General Hospitals within network above.

These guidelines were circulated amongst the North West and North Wales Paediatric Critical Care Network for comments on the 30th June 2023.

In addition, it was circulated amongst colleagues from the 3 regional Adult Critical Care Networks (Cheshire and Mersey, Greater Manchester, and South Cumbria and Lancashire) for comments in September 2023.

All comments received have been reviewed and appropriate amendments incorporated.

For ratification process for network guidelines see appendix 1.

4. Disclaimer

These clinical guidelines represent the views of the North West (England) and North Wales Paediatric Transport Service (NWTS) and the North West and North Wales Paediatric Critical Care Operational Delivery Network (PCCN). They have been produced after careful consideration of available evidence in conjunction with clinical expertise and experience.

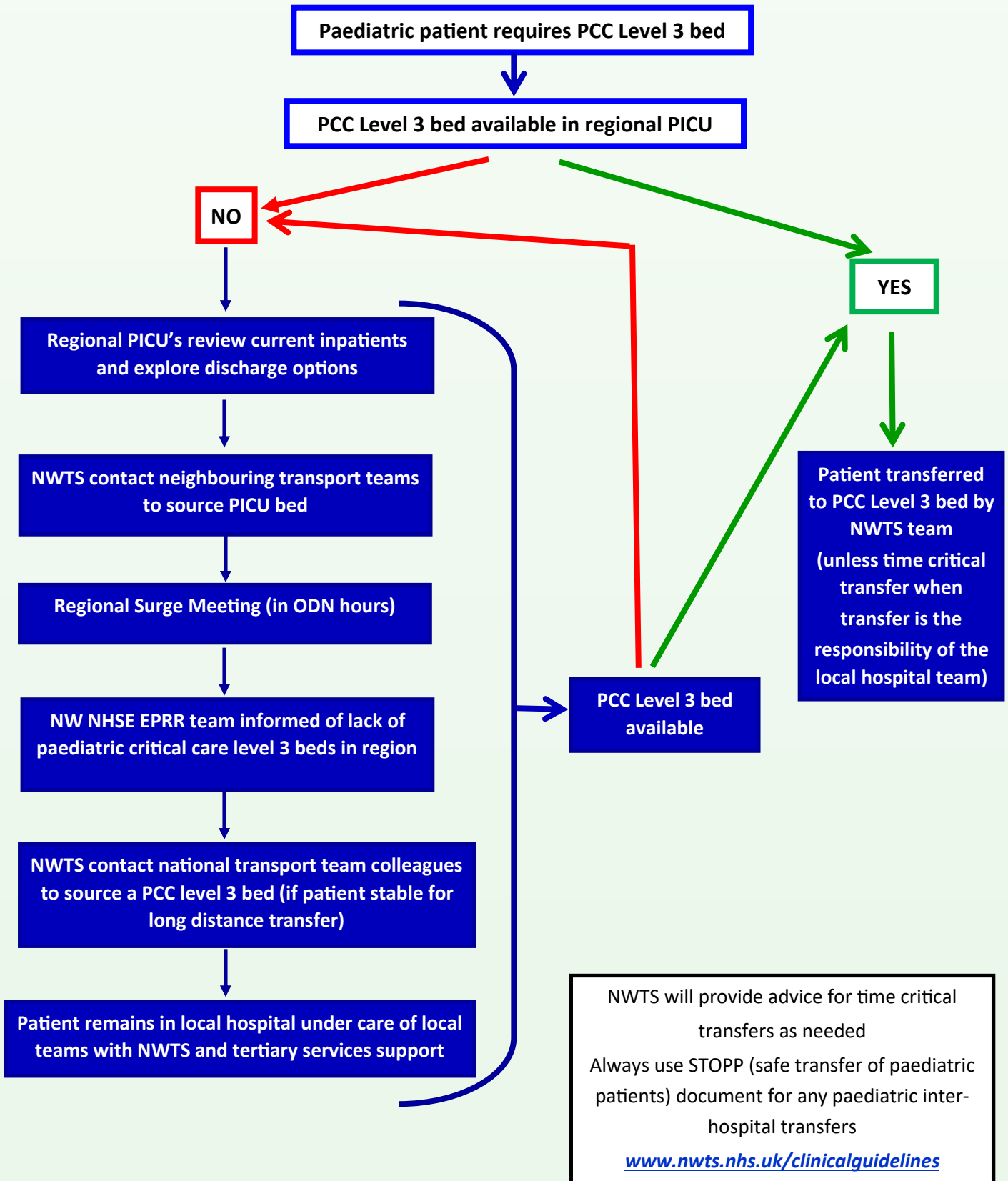
It is intended that trusts within the Network will adopt this guideline and educational resource after review and ratification (including equality impact assessment) through their own clinical governance structures.

The guidance does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient.

Clinical advice is always available from NWTS on a case by case basis.

Please feel free to **contact NWTS (01925 853 550)** regarding these documents if there are any queries

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BACKGROUND

North West (NW) England has continued to see increasing pressures on paediatric secondary and tertiary inpatient and critical care services. Acute paediatric services usually demonstrate a seasonal variation of around 20-30% additional acute activity during the winter months (largely due to respiratory illnesses) however this usual pattern has been lost and the paediatric critical care (PCC) services have seen continued level 2 and 3 critical care pressures.

Children and young people under 16 years requiring Level 3 critical care should be transferred to a Paediatric Intensive Care Unit (PICU), however when no bed is available the child / young person may need to be cared for in an alternative setting. This guidance will help support decision making principles and advise on how to safely support the child and family when no level 3 paediatric critical care bed is available.

SCOPE

Age: Children and young people aged 0-15 years old requiring PCC level 3 bed

Geography: North West England, North Wales and Isle of Man

Health Care Setting: Hospitals without a paediatric level 3 critical care unit

PRINCIPLES

When possible, in the North West (England), North Wales and Isle of Man region children / young people under 16 years requiring level 3 paediatric critical care will be admitted to one of the regional paediatric critical care units in:

- Alder Hey Children's Hospital
- Royal Manchester Children's Hospital

The transfer of critically ill children/young people will mainly be undertaken by the North West (England) & North Wales Paediatric Transport Service (NWTS) to the most appropriate tertiary centre for ongoing PCC level 3 care. If the transfer is time critical the transfer will be provided by the local hospital team.

If no PCC level 3 bed is immediately available in the PICU's within region the following will happen:

1. Both tertiary PICU's will be contacted by NWTS to request a PCC level 3 bed for the patient and inform them that no PCC level 3 bed is available in region at either site. A request will be made that they review current inpatients to look at:
 - Stepdown from PICU
 - Repatriations to local PCC level 2 paediatric centres / local hospitals without PCC level 3 beds
2. If no beds are available in region NWTS will contact colleagues (NECTAR /Embrace/KIDS-NTS) to find a bed in neighbouring regions
3. The North West Paediatric Critical Care Operational Delivery Network will escalate via the North West Surge What's App Group and if required a regional surge meeting could be held (in ODN hours)
4. If no beds are available in region, then this will be escalated to NW NHSE Women and Children's Programme of Care Leads to advise NW NHSE EPRR via email (england.nwroc@nhs.net)
5. NWTS will contact national paediatric critical care transport providers further afield to enquire if a bed is available nationally

If after all the above has been completed and there is:

- A. No paediatric critical care level 3 bed available in or out of region OR
B. The patient is unable to be transferred out of region due to instability.

The child or young person will remain in the current their local hospital until a level 3 paediatric critical care bed becomes available. NB NWTS team (PCC nursing staff and consultants) are available 24/7 to provide any advice and support as needed. NWTS will update the team caring for the child / young person re PICU bed availability.

NWTS contact number: 08000 84 83 82.

As soon as a bed is available NWTS will aim to undertake transfer of child / young person to an appropriate PICU bed if on-going support is required or the child/young person requires paediatric specialist team review.

*At each stage of this pathway it should be considered whether or not it would be more appropriate for the child / young person to remain in their local hospital for on-going critical care rather than move to the nearest available designated PCC level 3 bed. This decision should be made jointly by local adult critical care, anaesthetic, and paediatric clinicians, NWTS consultant(s) +/- tertiary specialists and regional or extra-regional PICU teams.

NB a multi-disciplinary conference call can be organised via NWTS as needed.

The ultimate decision to admit to an adult critical care unit, lies with the adult critical care consultant.

Factors likely to be relevant to this decision making process include (but are not limited to)...

- Patient age
- Patient weight - PCCS Standards cite wt. ≥ 40 kg
- Patients' presenting pathology
- Severity of illness and likelihood of survival
- Length of time critical care anticipated to be required
- Any interventions / input required from tertiary specialities
- Other NWTS activity / service pressures
- Regional and National PCC bed pressures
- Distance to travel (pt transport time) to nearest available PCC level 3 bed
- Transport considerations such as weather / ability to fly
- Acuity and workforce pressures in the referring centre
- Family consideration

LOCAL PATHWAY / STANDARD OPERATING POLICY (SOP)

Each Trust should have a local pathway in place to support the care of a critically ill child / young person outside of a designated level 3 PCC Unit in extreme circumstances. This should include:

1. The most appropriate area to care for the child / young person safely in the hospital this could be:
 - a. Theatres or theatre recovery
 - b. Paediatric high dependency area / PCC level 1-2 area
 - c. Adult critical care unit
 - d. Emergency department
 - e. Other
2. Identify a lead consultant to coordinate the care of the child / young person.
3. Escalation process: divisional management teams or equivalent in hours or senior person on call out of hours
4. Shared care between paediatric and adult services
5. Ongoing support/joint decision making with tertiary paediatric critical care services
6. Review daily of staff skillset and staffing levels to care for the patient
7. Equipment
8. MDT support

SUPPORT

To support the management of children and young people requiring level 3 critical care in their local hospital a conference call to support joint decision making should be set up to include as required:

- Appropriate local hospital paediatric specialists
- Paediatric intensive care medicine consultant from one or both regional tertiary paediatric centres
- Anaesthetics
- Adult intensive care teams
- NWTS

The aim is to determine the right and most appropriate course of action, and to provide appropriate governance. Ongoing conference calls should be set up as required (at least daily) to support ongoing care needs of the patient, and advise and support staff at the local centre. NB NWTS have conference call facilities and can organise this.

GUIDELINES: www.nwts.nhs.uk/clinicalguidelines

Includes regional and relevant national guidelines

Care of child / young person outside paediatric critical care level 3 environment in extreme and exceptional circumstances guideline

Crashcall = regional paediatric critical care drug calculator for sedation & inotrope infusion doses / concentrations: www.nwts.nhs.uk/documentation/crashcall

EDUCATION: via education website tab on NWTS website

www.nwts.nhs.uk/education-website

Login details for NWTS education site are available from your nursing, AHP and medical paediatric critical care operational delivery network links

OR via email: info@nwts.nhs.uk

RECORDED SESSIONS ON A WIDE VARIETY OF PAEDIATRIC CRITICAL CARE TOPICS WHICH INCLUDES:

Care of critically sick child or young adult on adult intensive care (nursing & medical)

Intubation of infants and children

Severe Asthma; Bronchiolitis; Management of respiratory patients

Septic shock

Status epilepticus

DKA management

Sick neonate / infant

Time critical transfers; Major Trauma including hanging, drowning and burns

CONTACT NUMBERS:

NWTS (North West (England) & North Wales Paediatric Transport Service): referrals 08000 84 83 82

Alder Hey Childrens Hospital Regional Paediatric Intensive Care Unit: 0151 252 5241

Royal Manchester Childrens Hospital Regional Paediatric Intensive Care Unit: 0161 701 8000

FOR DRUG DOSES: British National Formulary for Children

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CONSULTED PARTIES:

North West (England) & North Wales Paediatric Transport Service (NWTS)

North West (England) and North Wales Paediatric Critical Care Operational Delivery Network

PICU, Alder Hey & Royal Manchester Children's Hospital

Adult Critical Care Network's: Cheshire and Mersey, Greater Manchester, and South Cumbria and Lancashire

GUIDELINE CONTACT POINT: [Kate.parkins@nwts.nhs.uk](mailto:kate.parkins@nwts.nhs.uk) & [Nicola.longden@mft.nhs.uk](mailto:nicola.longden@mft.nhs.uk)

Please visit NWTS website for the most up to date version of this guideline: www.nwts.nhs.uk/guidelines

North West Pressure Gauge Triggers and Actions Flow chart

Overview of Actions at each Operational Pressure Level

Actions

Level 1 (OPEL 1 and 2). Low to Moderate pressure. Little risk of demand outweighing capacity. ICBs, Tertiary Centres, and NWTS all report activity data to ODN on weekdays. ODN circulate Pressure Gauge document to all relevant parties

**Review bed status
ODN discuss with tertiary centres/NHSE to ensure all commissioned open**

Level 2 (OPEL 3). Severe Pressure. Potential for capacity to be exceeded if current activity levels continue. ODN flag that Level 2 has been reached (following D/W NHSE). All acute Trust Management Teams coordinate optimisation of available beds and prioritise/review elective activity. NWTS review capacity to provide additional team. ODN explore AICU/NICU mutual aid capacity. NHSE oversee and monitor situation.

**As above
Regional Team meeting reinstated weekly (if sustained >24h)
ODN discuss with tertiary centres / ICB / NHSE consider training plan for staff (inter hospitals)**

Level 3 (OPEL 4). Extreme Pressure. Capacity Reached. ODN flag that Level 3 has been reached (following d/w NHSE). Acute Trust Management (command and control) Teams coordinate transition to urgent/emergency care only and optimise available beds (discharges/repatriations). NWTS assist with patient transfers to optimise bed availability. ODN request NICU/AICU mutual aid. Regional Commissioners liaise with supra-regional Commissioners re: overflow capacity and inform National Commissioners of situation

**As above
Training plan active
NHSE to advise EPRR system
Regional Team meeting reinstated twice weekly (if sustained >24h)**

Level 4 ('OPEL 5'). Capacity Exceeded. ODN flag that Level 4 has been reached (following d/w NHSE). Acute Trust Command and Control Teams/NWTS declare Major Incident status as appropriate. NHSE/ODN will inform all parties of National situation. Emergency Care only. Ethical frameworks employed where needed – NHSE oversight of Major Incident and Ethical situations

**As above
Regional Team meeting reinstated daily (if sustained >12h)**

RATIFICATION PROCESS

