East of England Paediatric Critical Care Operational Delivery Network

Management of surge and escalation in paediatric critical care services: Standard Operating Procedure

September 2024

Version 3.0

Prepared by the EoE PCC Operational Delivery Network (ODN)
Lead Author: Alison Clark, Lead Nurse
Approved: John Wingfield, Commissioning Manager

Review date: May 2025

CONTENTS

Section	Page number
1. Summary	3
2. Introduction	3
3. Purpose	4
4. Application	4
5. Regional and National outline	4
6. Planning Assumptions	5
7. Enabling measures	5
8. Roles and responsibilities	6
9. Role of the PCC ODN	6
10. East of England PIC provision	7
11. PICU/PHDU Surge capacity at CUH	7
12. PICU Nursing Management	8
13. Educational Considerations	8
14. Transport considerations	10
15. Escalation and intervention	11
OPERATIONAL ESCALATION MATRIX	12
Meeting plan for surge	14
Contact list	15
16. De-Escalation	16
17. Staff Indemnity	16
18. Intentions	16
19. Glossary	17
20. Bibliography	17
21. Recommended links	18
22. Appendix 1 – DGH information	19
23. Appendix 2 – DGH capacity/equipment information	20
24. Appendix 3 – PCC 3 staffing levels guidance (2015) 25. Appendix 4 – Funding and planning	22

This plan has been developed in collaboration with PICU/ DGH units and transport teams across the EoE. This provision has focussed on L1- L3 beds and transport service provision. In 2021 the ODN undertook an exercise to gather capacity information from all trusts and both transport services which support EoE. At the time of writing this document the transport and PICU provision is clear, however this document will be reviewed in light of any changes we receive.

1. SUMMARY

The principles of this surge and escalation process for East of England (EoE) Paediatric Critical Care (PCC) Service are:

1.1 Preservation of a 'standard' pathway for critically ill children for as long as possible.

1.2 A coordinated and stepped approach to increased demand for capacity, including effective patient flow management. This may include mutual aid for CUH HDU from NNUH, Luton, Basildon or other suitable HDU beds. This is most likely to be early step down of care from CUH.

1.3 Preservation of emergency, general and specialist services for as long as possible.

1.4 Equity of access to treatment across the EoE.

1.5 Aiming to keep the child and family as close to home as possible.

1.6 A coordinated and stepped approach to decreasing demand for capacity and restoration of 'business as usual' as soon as possible.

1.7 The EoE PCC ODN will work closely with neighbouring networks and NHS statutory organisations including the NCC/SIC/ACC ODNs, NHS Emergency Preparedness, Resilience and Response teams and EoE UEC Team/Critical Care Cell to anticipate and communicate the requirement for escalation and expansion of capacity.

2. INTRODUCTION

2.1 Surge describes the pressure on the overall paediatric system leading to increased demand for the PCC system that may require regional, supra regional or national support. PCC services include level one, two and three care and the pathway includes specialist paediatric transport services.

2.2 Paediatric critical care services are an inherent part of the delivery of specialised paediatric care. PCC service capacity can often be put under pressure. For the purposes of this document, this will be known as paediatric critical care surge (PCC surge). Paediatric Intensive Care Units (PICUs) will often experience increased demand for capacity due to the impact of one or more of these specialised children's services. This can result in PICUs needing to open extra capacity that consequently has an effect on the availability of specialised staff and other necessary resources. When there is additional pressure on capacity during surge, PICUs may reach capacity and not be able to respond to demand. This may result in critically unwell children being unable to be placed in a paediatric critical care bed within region and requiring transfer out of region to find one.

2.3 Within the East of England there is one level 3 unit in Cambridge, with nine level 3 and four level 2 commissioned beds. Some DGH pathways for intensive care also routinely include utilisation of level 3 services in London, in particular cardiac services.

2.4 PaNDR is the commissioned service for paediatric critical care transport for all providers in EoE except for WHHT who use CATS (North Thames Paediatric Network). Milton Keynes comes under the remit of TVW Network and so SONet provides their transport.

3. PURPOSE

3.1 This document provides a framework for the East of England PCC ODN to support regional colleagues in the management of escalating and unplanned peaks in demand for paediatric critical care beds. It describes the roles and responsibilities of the organisations and identified post holders.

3.2 It is intended for use by regional NHS acute hospital trusts, ODNs, transport teams and specialised commissioners, ICB's and NHSE.

4. APPLICATION

4.1 NHSE requirements documented in the Paediatric Intensive Care Surge Standard Operating Procedure NHSE& I Web version November 2020 and Paediatric Critical Care Surge Plan Guidance October 2023 will be met by the adoption of this plan by acute trusts within the EoE PCC ODN. Local providers own internal surge plans should also be taken into consideration.

5. REGIONAL AND NATIONAL OUTLINE

5.1 Surge demand and capacity in PCC services is managed at provider level on a day-to-day basis. At times of exceptional demand when capacity and capability may be critical, escalation to East of England Regional UEC on-call will be required.

5.2 Levels of surge and escalation are described in the national SOP using Operational Pressures Escalation Levels (OPEL levels 1-4). This document aligns the OPEL levels with a RAG rating for ease of use by providers.

5.3 Escalation aims to mitigate the capacity pressure during surge, which may impact urgent and emergency care performance and/or patient safety.

5.4 There needs to be a strategic 'real time' oversight of demand with systems in place to understand and assess capacity and respond to PIC OPEL levels accordingly and a clear communication pathway with the PCC ODN.

5.5 Surge and escalation levels described in this document reflect the regional and national process for managing surge. Please note that individual providers may have an internal OPEL escalation system in place. It is intended that this guidance should be incorporated within local Trust Escalation plans and should be viewed as part of the overall response.

6. PLANNING ASSUMPTIONS

6.1 Paediatric critical care services include level one, two and three care. Level one and level two map to high dependency care and level three to intensive care. The pathway of care includes paediatric critical care transport services.

6.2 PCC will be delivered to national clinical standards until fully staffed capacity is reached.

6.3 Paediatric Intensive Care Units are recognised as having expected seasonal demand increases - this is considered to be 'business as usual'. Escalation to higher OPEL levels is defined in relation to a rapid increase in demand for PIC.

6.4 Children will continue to be admitted to PICUs for as long as possible using regional, supra regional and national PIC beds as a resource.

6.5 All clinical decisions will be underpinned by relevant local and national ethical guidance (e.g., NHS England, General Medical Council, Nursing and Midwifery Council, Paediatric Intensive Care Society).

6.6 PIC actions relate to a situation where there is excessive demand for PIC but not adult critical care. Where there is also excessive demand for adult critical care actions will have to be modified. This is likely to cause a more rapid escalation to a higher OPEL level.

7. ENABLING MEASURES

7.1 To maintain surge capacity, these enablers will need to be maintained, held on standby or retained as procedures to be reactivated:

- Increasing the workforce by identification of staff that could be redeployed/retrained to work in PCC.
- Provision and support of relevant training
- Escalation communication with EoE PCC ODN
- Information regarding regional staffing/educational requirements, equipment availability and bed capacity will be scoped.

8. REGIONAL ROLES AND RESPONSIBILITIES

8.1 **Individual Trusts are responsible for preparing for PCC surge with a plan that includes cancellation** criteria for elective surgery, movement of staff and capacity management/increase planning. The potential impact of unexpected/unseasonal infection peaks should also be considered.

8.2 **Clinical teams remain responsible for the management and decision making of patient care.** The ODN and providers will work together to ensure the maintenance of optimal care across the PCC pathway.

8.3 **Consultant communication regarding clinical decision making and patient flow is imperative for management of surge.**

8.4 The PCC ODN are responsible for working with providers to assist in planning bed capacity.

8.5 The NHS Pathway Directory of Service (Pathway DOS) Capacity Management System (CMS) must be updated with PIC capacity twice daily as a minimum at 08.30 and 19.30. The URL for the DoS is: https://www.directoryofservices.nhs.uk

8.6 The paediatric bed management team at Cambridge University Hospital are responsible for communicating with the PIC unit senior nurse or medic and updating the DoS CMS database.

8.7 CATS and PaNDR will provide a daily report on their services to include bed availability, referrals made and details of regional transfers. This will also be made available to the EoE UEC Team as required.

8.8 The ODN will need to remain informed of any potential capacity issues within London and the East Midlands through liaison with the North Thames Paediatric Network and East Midlands PCC ODN. The EoE PCC ODN will keep both informed of any EoE capacity concerns. Supra regional information sharing will be key to managing surge.

9. PAEDIATRIC CRITICAL CARE ODN ROLES AND RESPONSIBILITIES

9.1 Maintain regional oversight and support decisions on escalation in keeping with this plan.

9.2 Check at least daily as required using the NHS Pathway Directory of Service Capacity Management System and local sit reps to assess critical care capacity.

9.3 Communicate with local PICU/PCC and transport teams as required to monitor capacity issues and patient flow and to offer support.

9.4 Monitor delayed repatriations and discharges affecting PCC capacity in the EoE.

9.5 Monitor cases being managed outside of PIC units.

10. EAST OF ENGLAND PIC PROVISION

10.1 CUH is the regional PICU, which provides up to level 3 intensive care support for paediatric medicine, surgery, neuro, trauma and oncology. There is no regional provision for cardiac surgery however there are several established pathways with London and the East Midlands.

10.2 Norfolk and Norwich University Hospitals (NNUH) provide standalone level 2 capacity.

10.3 There is additional level 2 capacity at Bedfordshire Hospitals Foundation Trust, Luton site and MSE on the Basildon site.

10.4 The current level of level 2 and 3 critical care beds across the East of England is as shown in table 1 below:

Table 1: Current PIC capacity (July 2024)

	Level	CUH	NNUH	Luton	Basildon
Commissioned	**2**	4	4	2	2
	3	9	0	0	0
Current	**2**	4	4	2	2
	3	9	0	0	0
* DHG level 1 PCC capacity can be found in appendix 1					

11. SURGE CAPACITY FOR PICU/PHDU AT CUH

11.1 PICU/PHDU total of 13 beds currently commissioned as 9 ITU and 4 HDU beds.

11.2 We can ventilate in all these bed spaces. The HDU beds are small spaces and are not fit for a full complement of adult sized beds if required.

11.3 In the event of the demand for paediatric critical care capacity exceeds the available resources, the existing paediatric critical care capacity will be supplemented in a phased manner by increasing the number of beds.

11.4 There is currently a cubicle that can be used on C3 with gases and monitoring using a portable monitor. This would give a capacity of 14.

11.5 To increase above this number would require appropriate equipment, which consists of a ventilator, monitor, 8 B-Braun syringe pumps and 2 infusion pumps per bed space.

11.6 Nationally levels of surge and escalation are described using the PCC OPEL definitions. The trigger for Phase One being initiated will be our inability to admit a level 3 patient to PICU without impacting upon other services.

The guiding principle of this plan is that patients will be located within key hubs to maximise patient safety and allow timely access to senior critical care support.

Phase One OPEL 2
Objective: Maximise internal critical care capacity (10 Level 3, 4 level 2 beds) Flexible use of I cubicle
• Prioritise repatriations to other hospitals with the assistance of the PaNDR service. • Cancel study leave, mandatory training, non-clinical, and admin time where possible. • Consider stopping elective theatre activity which requires post-op care in PICU to increase capacity to ventilate patients in the HDU area. • Increase RNc compliment on PICU/PHDU to manage all Level 3 patients through Bank and Agency. • Operational staff and others designated to cover 0007 bleep released to maximise availability of critical care trained senior nurses for clinical duties. • Release all PICU Consultants from non-critical care activity **Total critical care bed capacity: 10 Level 3 beds, 4 Level 2 beds**
Risks: • PICU staff fatigue from additional bank duty • Potential increase in staff sickness levels

Phase Two OPEL 3
Objective: Maximise internal critical care capacity (14 Level 3 beds). Flexible use of I cubicle
• Maximise use of clinical equipment across all critical care areas, 2 servo U ventilators from adult critical care. • Alert Clinical Engineering that additional support will be needed to equip areas that are not routinely used for Level 3 patients. • Alert all non-critical care areas that increased support will be needed for review of patients stepped down from critical care areas. • Consideration to review all elective surgery to allow the release of all clinical staff to be redeployed to optimise increase in critical care capacity. • All paediatric critical care trained nursing staff within CUH to be relocated to Paediatric critical care. • Request bank enhancements for ITU trained staff. • Identify Level 2 patients to be moved to C3 in discussion with clinical teams. • Changed Consultant work patterns will be required in Anaesthesia and Critical Care to facilitate safe medical coverage of the overall response. • Pharmacy stocks and pharmacy support will need to be increased to support increased capacity. **Total critical care capacity: 14 Level 3 beds**
Risks: • PICS staffing guidelines will no longer be complied with by end of Phase Two. • PICU staff fatigue from additional bank duty • Potential increase in staff sickness levels • Availability of equipment if adult / neonatal services needed to surge beds • Deficit of intensive care skilled nurses

Summary
In the event of an increased demand for critical care paediatric beds, phases one and two would increase our current level 3 capacity by 11% and 55%. The ability to surge will be dependent upon the ability to release trained staff from the division.

Due to limited cubicle space within Children's services the flow of patients would be reliant on the availability of point of care testing for respiratory viruses.

12. PICU NURSING WORKFORCE MANAGEMENT

Opel	Minimum Staffing Requirements per shift PCC Compliance	Potential breaches of PCC Compliance
Opel 2	12registrant nurses for Level 3 patients 2 nurses for remaining level 2 patients	12 registrants X1 support nurse If skill mix permits x1 1:1 breach
Opel 3	16 nurses	13 registrants X1 support nurse If skill mix permits x2 1:1 breach

13. EDUCATIONAL CONSIDERATIONS

13.1 To support the increase in bed capacity PICU would require significant investment and support from children's services to instigate the education programme required for an increase in nursing workforce.

13.2 The ODN offers educational support for staff across the rest of the region. This includes:

- Online refresher sessions on CPAP and HHHFT.
- Face to face equipment updates and SIM for stabilisation as required
- Supraregional ODN guidelines for CPAP and HHHFT can be accessed on the EoE PCC ODN website.
- STOPP tool for management of PCC transfers not meeting the transfer threshold for PaNDR or other PCC transport services.
- Teaching packages on Bridge – PD teams have access to this, and additional logins can be made available for nurses managing HDU patients.
- Sharing details of educational resources from NTPN, HEE and other providers.
- LTV education and support.

14. TRANSPORT CONSIDERATIONS

14.1 **PaNDR** will provide a retrieval service according to its 'Standard Operating Procedure' working in collaboration with CATS for paediatric referrals.

This will include:

- A single point of telephone contact for referring clinicians for the East of England, except for WHHT who will continue to be supported by CATS.
- Access to specialist advice 24/7
- Identification of a suitable cot or bed in the most appropriate location for any child requiring PIC care in the East of England. If demand exceeds capacity, PaNDR EBS will escalate to the ODN to activate super-regional capacity plans.
    - Dispatch of a retrieval team within the agreed and clinically appropriate time window, providing decision support, transport coordination and emergency transports 24/7, 365 days a year.
- If regional demand exceeds PaNDR capacity, for a response within the agreed and clinically appropriate time frame, support will be sought from neighbouring neonatal and paediatric critical care transport teams.
- A list of all children in the defined region where decision support is accessed, the recording of decisions and outcomes with daily reports shared with the ODN and CATS team.

14.2 **CATS** will provide a transport service according to its 'CATS Standard Operating Guidance'.

This will include:

- A single point of telephone contact for WHHT.
- Access to specialist advice.
- Identification of a suitable cot or bed in the most appropriate location for any child requiring PIC care in WHHT.
- Dispatch of a transport team within the agreed and clinically appropriate time window.
- If regional demand exceeds CATS capacity for a response within the agreed and clinically appropriate time frame, support will be sought from neighbouring neonatal and paediatric critical care transport teams.
- A list of all children where PIC advice is sought, recording decisions and outcomes.
- CATS will be running an additional daytime team Monday to Friday, October 2023 to March 2024. This additional resource will be to help mitigate surge capacity and facilitate level 3 to level 2/1 back transfers to promote patient flow through the ICUs.

15. ESCALATION AND INTERVENTION

Nationally, levels of surge and escalation are described using the PIC OPEL definitions.

Pressures and OPEL Escalation Levels

OPEL LEVEL	Description
(OPEL 1)	The service can meet all paediatric critical care capacity requirements without impact on other services. The system is working within PIC Baseline Bed Capacity
(OPEL 2)	The PICU bed capacity across the region is becoming limited. It is unable to admit patients within 6 hours unless surge beds are opened
(OPEL 3)	Actions at OPEL 2 have failed to deliver the required PIC Surge Capacity. Capacity across the region and staff ratios are at maximum capacity – PICU are unable to accept new referrals within 6 hours
(OPEL 4)	Actions at OPEL 3 failed to deliver the required capacity - PICU Surge Capacity across the region and supra-region is at maximum capacity and PICU are unable to accept new referrals within 6 hours

15.1 This plan will be activated in response to the triggers and levels described.

15.2 Escalation to PCC OPEL THREE will follow a discussion between the ODN and the Regional NHSE team in hours or a decision made out of hours by the on-call PIC Consultant and Transport Team, in communication with Silver/Gold command at CUH.

15.3 Following escalation to PCC OPEL THREE the ODN (in hours) and transport team (out of hours) become the source of information/advice to regional, supra regional and national meetings.

OPERATIONAL ESCALATION MATRIX			ODN ACTIONS	
RAG RATING	**OPEL LEVEL**	**Triggers**	**In hours**	**Out of hours**
Green	**OPEL ONE**	• PIC service can meet all capacity requirements without impact on other services • Business as usual • Working at baseline PIC bed capacity	• Monitoring of capacity from daily PCC and PICU sitreps sent to ODN • Review DoS completed 12 hourly by CUH bed managers (by 10am and 10pm) • Review daily reports from CATS and PaNDR • Meetings as per plan (P14)	• DoS to be completed 12 hourly at weekends • Conference with the on-call PIC Consultant, Transport Teams and escalation via Silver/Gold Command at CUH.
Amber	**OPEL TWO**	• PIC service is becoming limited with some potential impact on other services • May be unable to admit pending patients within 6 hours unless surge beds opened	• PICU to report concerns to ODN Lead Nurse. • Communication from Lead Nurse with DGH's regarding planned discharges/repatriations • Lead Nurse to confirm activation of Trust escalation plans as appropriate. • Ascertain if bed capacity will meet elective and emergency demand • DoS to be completed 12 hourly • Lead Nurse to confirm supra regional capacity with ODN colleagues from NTPN and E Midlands. • Confirm internal unit specific review of paediatric elective surgery requiring PIC. • Inform Regional Urgent and Emergency Care (UEC) team if further escalation required. • Meetings as per plan (P14)	• Ongoing monitoring of capacity • DoS to be completed 12 hourly at weekends • Transport teams to inform Silver/Gold Command at CUH if further escalation required

Red	**OPEL THREE**	• OPEL TWO actions failed to deliver capacity • Surge capacity may soon be exceeded if demand increases • Staffing at maximum capacity • Regional concern regarding PIC beds as unable to accept new referrals within 6 hours.	• ODN lead nurse to inform all Trusts that escalation to OPEL THREE in place and request to maximise repatriations/discharges • Matron /HON discussions re: staffing plans for additional capacity • Discuss with PICU risk assessment of current PIC patients and their plans to change staff ratios/double patients • Confirm support from NICU for babies <1year or use of adult critical care for age/ clinically appropriate patients • Confirm which units have cancelled surgery • ODN to inform Regional Team and confirm supra regional capacity with ODN colleagues in NTPN/ E Midlands • Relevant participation in regional/supra regional surge calls • Inform EoE UEC Team and EPRR of status • Meetings as per plan (P14)	• Transport team to email EoE PCC ODN to inform of escalation and actions Email- add-tr.eoepccodn@nhs.net • Transport teams to escalate via Silver/Gold Command at CUH.
Black	**OPEL FOUR**	• Actions at OPEL THREE failed to deliver required capacity • Regional and supra regional maximum capacity reached • Unable to accept new referrals within 6 hours	• ODN lead nurse to inform all Trusts that escalation to OPEL four in in place • Review all OPEL three actions • ODN to inform NHSE Regional Team • Participate in supra regional/national surge calls/ Critical care cell meetings as required	Transport team to escalate via Silver/Gold Command at CUH and email EoE PCC ODN to inform of escalation Email add-tr.eoepccodn@nhs.net

MEETING PLAN

OPEL 1
Monthly EoE ODN Lead Nurse/Clinical Lead catch up meeting
Bi-weekly EoE ODN team meeting
Weekly updates to Regional Commissioning
Regular transport meetings (CATS and PaNDR +/- COMET)
Daily Sit Rep reports from CUH PICU and all DGH's
Monthly catch up with EoE Adult Critical Care Network
Monthly catch up with EoE Neonatal ODN
Monthly catch up with EoE Surgery in Children Network
Monthly National PIC ODN Calls
Bi-weekly call with NTPN Network team
Bi-weekly call with E Midlands Network team

Opel 2 (Surge)
Bi-weekly EoE ODN Lead Nurse/Clinical Lead catch up meeting
Weekly EoE ODN team meeting
Daily – weekly updates to Regional Commissioning as required
Regular transport meetings (CATS and PaNDR +/- COMET)
Daily Sit Rep reports from CUH PICU and all DGH's
Bi-weekly meetings with EoE Adult Critical Care Network
Bi-weekly meeting with EoE Neonatal ODN
Bi-weekly meeting with EoE Surgery in Children Network
Bi-weekly National PIC ODN Calls (TBC)
Weekly call with NTPN Network team
Weekly call with E Midlands Network team
National updates/meetings (TBC)

Opel 3+ (Surge)
Weekly EoE ODN Lead Nurse/Clinical Lead catch up meeting
Weekly EoE ODN team meeting
Daily updates to Regional Commissioning
Regular transport meetings (CATS and PaNDR +/- COMET)
Daily Sit Rep reports from CUH PICU and all DGH's
Weekly meeting with EoE Adult Critical Care Network
Weekly meeting with EoE Neonatal ODN
Weekly meeting with EoE Surgery in Children Network
Weekly National PIC ODN Calls (TBC)
Daily - Weekly call with NTPN Network team as required
Daily - Weekly call with E Midlands Network team as required
National updates/meetings (TBC)

Where possible, NTPN and EoE networks will share information relevant to the hospitals bordering both ODNs.

CONTACT LIST

	Name	Contact Number	Email
EoE PCC ODN In hours	Alison Clark – Lead Nurse	07734980820	alison.clark11@nhs.net
	Liz Langham – Director	07720313360	elizabeth.langham1@nhs.net
EoE PCC ODN Out of hours	Emails will be picked up Mon-Fri office hours		add-tr.eoepccodn@nhs.net
CUH Bed Managers		07450 693036	add-tr.paediatricbedmanagers@nhs.net
Manager of the Day for Division E (CUH)		07522 800062	Senior nurse for escalation at CUH
EPRR Duty Manager EPRR Notification **Major incident/business continuity incident/critical incident**		01223 902 006	england.eastofengland-eprr@nhs.net If urgent, please contact the 24/7 EPRR Duty Manager to let them know there is an email that needs their attention.
EPRR Regional Operations Centre		0113 8248805	
UEC	Pager 07623 515951	01480 221186	england.eoe-uecops@nhs.net
PaNDR		01223 274 274	
CATS		0800 085 0003	
COMET		0300 300 0023	
NTPN			england.ntpn@nhs.net
E Midlands PCC ODN			EMC3N@uhl-tr.nhs.uk

16. DE-ESCALATION

16.1 It is recognised that organisations need to return to 'normal service' as soon as possible to prevent delays to routine Trust activity. The identification and discussions regarding de-escalation should be directed in line with national and regional command and control arrangements.

17. STAFF INDEMNITY

17.1 As the escalation response occurs, it is recognised that all groups of staff (medical, nursing and allied health professionals) are likely to be expected to work outside the scope of their usual working practices. Examples of these include:

- Caring for greater numbers of patients that is recognised to be safe and acceptable by medical and nursing professional bodies.
- Non critical care staff working alongside critical care trained staff.
- Working outside the hours stipulated by the European Working Time Directive.
- Providing a more limited standard of critical care than is normally considered acceptable.
- Medical staff having to alter their decision-making processes for admission and treatment withdrawal in times of extreme capacity limitations.

17.2 Trust policies should reflect the support and protection for staff working to deliver the escalation expectations within this framework.

17.3 Changes to working practices in response to escalation should be documented and communicated to affected staff. Changes should be regularly reviewed, and staff returned to normal roles immediately following de-escalation.

18. INTENTIONS

18.1 To review and amend current document to ensure it is fit for purpose and meets the needs of the paediatric critical care population.

18.2 To work collaboratively with NHSE&I representatives, regional PCC ODNs and the EoE Adult and Neonatal critical care networks to ensure equitable and efficient use of critical care resources.

19. GLOSSARY

CATS	Children's Acute Transport Service
CMS	Capacity Management System
CPAP	Continuous Positive Airway Pressure
CUH	Cambridge University Hospitals
DGH	District General Hospital
DoS	NHS Pathway - Directory of Services
EoE	East of England
EPRR	Emergency Preparedness, Resilience and Response
HHHFT	Heated Humidified High Flow Therapy
MSE	Mid and South Essex NHS Foundation Trust
ODN	Operational Delivery Network
OPEL	Operational Pressures Escalation Levels
PaNDR	Paediatric and Neonatal Decision Support and Retrieval service
PCC	Paediatric Critical Care
PICU	Paediatric Intensive Care Unit
SOP	Standard Operating Procedure
UEC	Urgent and emergency care
WHHT	West Hertfordshire Hospitals NHS Trust

20. BIBLIOGRAPHY

- Paediatric Intensive Care Surge Standard Operating Procedure (web version), November 2019; NHS England and NHS Improvement
- Management of Surge and Escalation in Paediatric Critical Care Services: Standard Operating Procedure, November 2019; Yorkshire and Humber Paediatric Critical Care Network
- Increasing resilience in Paediatric Intensive Care services in preparation for a potential surge in paediatric respiratory infections, April 2021; Specialised Commissioning and Health and Justice Strategy Group

21. **RECOMMENDED LINKS**

NHSE Paediatric Critical Care Surge Planning Guidance – October 2023

NHSE Working together to deliver a resilient winter – July 2023
Working together to deliver a resilient winter: System roles and responsibilities (england.nhs.uk)

RCPCH GUIDELINES
National guidance for the management of children in hospital with viral respiratory tract infections (2022) | RCPCH

PCC ODN CPAP AND HIGH FLOW GUIDELINES
East of England Paediatric Critical Care Operational Delivery Network — NHS Networks

HEE EDUCATIONAL RESOURCES
Respiratory Surge in Children - elearning for healthcare (e-lfh.org.uk)

PaNDR
PaNDR (pandreastofengland.co.uk)

22. APPENDIX 1 – DGH INFORMATION

This SOP focusses on the escalation pathway for PIC (level 3) capacity however it is recognised that capacity and surge management across the region in all DGHs is integral to the process. Each unit should have their own escalation plan which will inform the East of England regional surge and escalation process. The ODN will support regional DGHs to manage surge and escalation. Please note that the care pathways for some hospitals are into the NTPN region and Peterborough also refer some children to the E Midlands area. It is recognised that capacity increases will be dependent on the availability of appropriate safe staffing.

TRUST	CONTACT DETAILS	
Basildon University Hospital (Mid and South Essex Hospitals Trust)	Switchboard: 01268 524900	Puffin Ward: 01268 393510
Bedford Hospital (Bedfordshire Hospitals NHS Foundation Trust)	Switchboard: 01234 355 122	Riverbank Ward 01234 792204
Broomfield Hospital (Mid and South Essex Hospitals Trust)	Switchboard: 01245 362000	Phoenix Ward: 01245 513904
Colchester Hospital (East Suffolk and North Essex Foundation Trust)	Senior Nurse Bleep: 01206 747474 (bleep 953)	Ward: 01206 742 156
Cambridge University Hospital	Paediatric Bed Manager: 07450 693036	PICU: 01223 217715
Princess Alexandra Hospital - Harlow	Matron: 01279978513 / Head of Nursing: 01279827446	Dolphin Ward: 01279 827173
Hinchingbrooke Hospital	Switchboard: 01480 416416	Holly Ward: 01480 423164
Ipswich Hospital (East Suffolk and North Essex Foundation Trust)	Switchboard: 01473 712 233 (bleep 630)	Bergholt Ward: 01473 702194
James Paget University Hospital – Great Yarmouth	Switchboard: 01493 452452 (matron on call Mon-Fri)	Ward 10: 01493 452010
Queen Elizabeth Hospital – Kings Lynn		Rudham Ward: 01553 613844
Lister Hospital (East and North Hertfordshire NHS Trust)	Switchboard: 01438 314333 (paediatric matron)	Bluebell Ward
Luton and Dunstable Hospital (Bedfordshire Hospitals NHS Foundation Trust)	Switchboard: 01582 491166	Squirrel: 01582 497505
Norfolk and Norwich University Hospital	Emma Chapman. Senior Matron 01603 646009 / Teresa Miles 01603289025	Ward: 01603 286321
Peterborough City Hospital (North West Anglia NHS Foundation Trust)	Switchboard: 01733 678000	Amazon Ward: 01733 678401
Southend Hospital (Mid and South Essex Hospitals Trust)	Switchboard: 01702 435555 (Paediatric Matron)	Neptune Ward: 01702 385180
Watford General Hospital (West Hertfordshire Hospitals NHS Trust)	Switchboard: 01923 244 366	Starfish Ward: 01923 217 357
West Suffolk NHS Foundation Trust	Switchboard: 01284 713000 (Clinical Service Manager)	Rainbow Ward (F1) 01284 713315

APPENDIX 2 - DGH CURRENT BED CAPACITY

Site	Total Current Bed Number (all ward beds incl. HDU)	HDU bedspaces
Basildon	20 (5 cubicles)	2-4
Bedford	18 (9 cubicles)	1
Broomfield	22 (16 cubicles)	2
Colchester	24 (10 cubicles)	4
Harlow	16 (10 cubicles)* +3 flex beds	2
Hinchingbrooke	13 (6 cubicles)	1
Ipswich	24 (12 cubicles)	2
James Paget	27 (19 cubicles) *concept ward till Nov	2
QEHKL	22 (7 cubicles)	2

Lister	20 (8 cubicles)	2
Luton & Dunstable	34 (17 cubicles) +4 contingency beds	7
NNUH	32 (8 single and 2 double cubicles)	6
Peterborough	30 (12 cubicles)	2
Southend	16 (10 cubicles)	2
Watford	20 (8 cubicles)	2
WSH	15 (11 cubicles)	2

APPENDIX 3 - PCC Quality Staffing Levels for L3 Care (2015)

70% of nursing staff working in PICU should have appropriate level competencies in PCC. An establishment of at least 7.01 nurses and non-registered health care staff per bed for children needing Level 3 care will be required to achieve this QS (PICS, 2010). This includes an allowance of 25% non-patient contact time for annual, maternity, sickness, special and study leave.

The following minimum nurse staffing levels should be achieved:

(a) At least one nurse with up-to-date advanced paediatric resuscitation and life support competences on each shift
(b) At least two registered children's nurses on duty always in each area
(c) At least one nurse per shift with appropriate level competences in paediatric critical care
(d) One nurse with appropriate level competences in paediatric critical care for every two children needing Level 1 or Level 2 critical care
(e) At least one nurse per shift with competences in care of children with tracheostomies and those requiring non-invasive or tracheostomy ventilation
(f) One nurse with appropriate level competences in paediatric critical care for every child needing Level 3 critical care
(g) Supernumerary shift leader for every eight to ten beds for children needing Level 3 care

APPENDIX 4 – FUNDING AND PLANNING

The EoE PCC ODN are currently in discussion with regional commissioning to agree proposals for utilisation of the remaining funding being made available for Level 2 capacity.