



Paediatric Critical Care-
What does this mean in the world of adult nursing

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President Paediatric Critical Care Society

RCN- Head of Nursing Children and Young People



Paediatric Critical Care – the statistics.

Common challenges

Why children come to AICU

Support for AICU colleagues

Thoughts/Questions

PICU's

23 units England, 1 NI, 2 Scotland, 1 Wales
(+1 ROI)

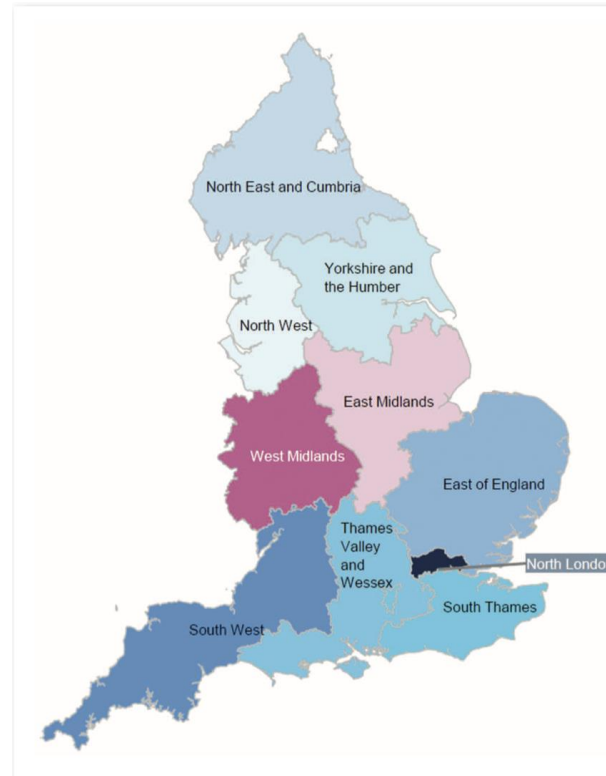
10 ODN's

10 transport teams

CCOT

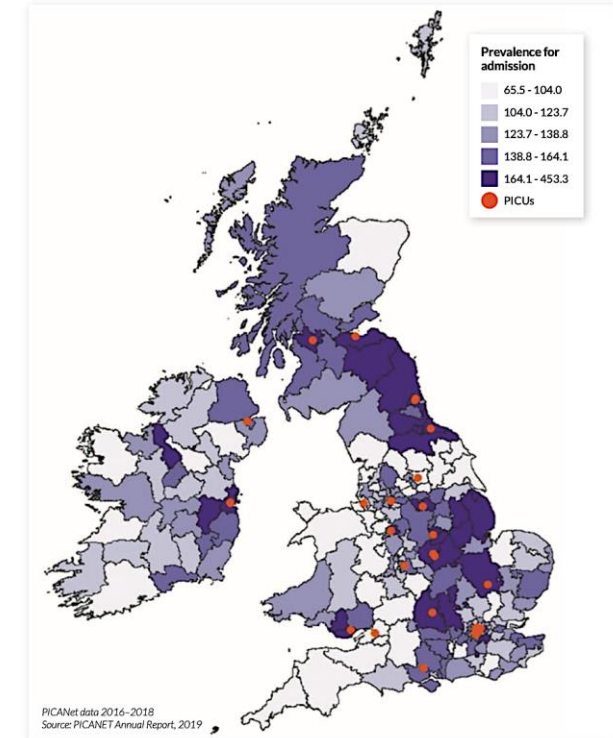
2.7 beds per 100000 children

England ODN's

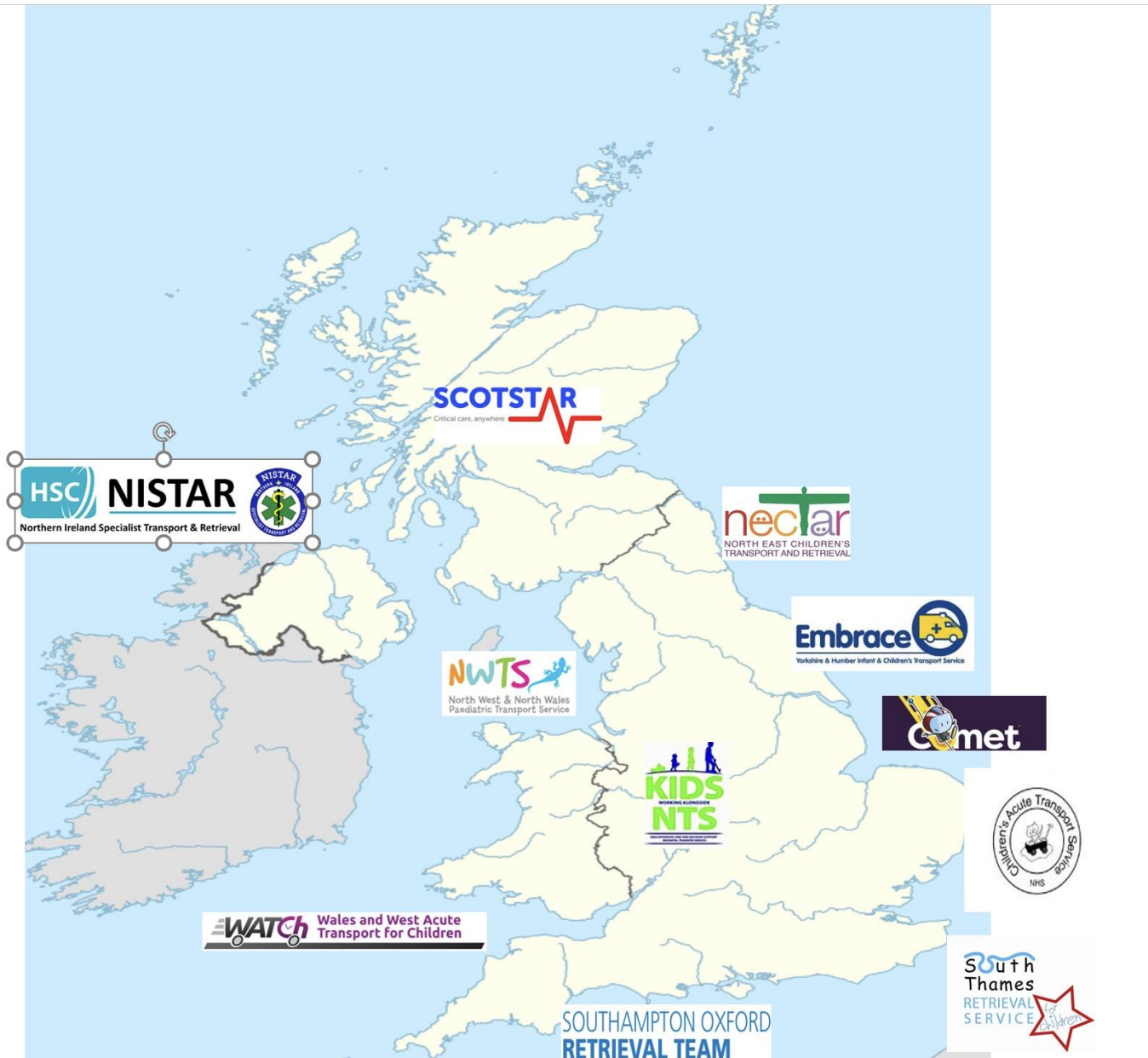


PICU's

Figure 5: Rate of PICU admission per 100,000 childhood population by healthcare area



Transport Services



Hospitals which have some form of retrieval service

John Radcliffe, Oxford
 Addenbrooke's, Cambridge
 Portsmouth
 Bristol
 North Staffordshire Royal Infirmary, Stoke
 Birmingham Children's Hospital
 Alder Hey, Liverpool
 Manchester Children's Hospital
 United Leeds Teaching Hospitals
 Newcastle General Hospital
 Guy's and St Thomas'
 King's
 St Georges, Tooting
 St Mary's, Paddington
 Great Ormond Street
 Sheffield Children's
 Leicester Royal Infirmary

Source: Regional Coordinators for Paediatric Intensive Care e

Paediatric Intensive Care "A Framework for the Future"

Provision of commissioned L2 (HDU) beds across England (NHSE & I, 2022)

| Network | HUBS | | | SPOKES | |
|------------------------|---|--|---|--|---|
| | Number of NHS England and NHS Improvement commissioned PICU (L3) beds | Number of NHS England and NHS Improvement commissioned HDU (L2) beds | Number of L2 beds relative to number of L3 beds (%) | Number of spoke hospitals in ODN with NHS England and NHS Improvement commissioned HDU (L2) beds | Total number of NHS England and NHS Improvement commissioned HDU (L2) beds in ODN |
| East of England | 9 | 4 | 44% | 1 | 4 |
| East Midlands | 22 | 13 | 59% | 2 | 6 |
| North of England | 23 | 14 | 61% | 0 | 0 |
| North Thames | 60 | 15 | 25% | 1 | 8 |
| North West | 37 | 40 | 108% | 0 | 0 |
| South Thames | 33 | 36 | 109% | 0 | 0 |
| South West | 18 | 17 | 94% | 4 | 16 |
| Thames Valley & Wessex | 22 | 23 | 105% | 0 | 0 |
| Yorkshire & Humber | 25 | 20 | 80% | 1 | 4 |
| West Midlands | 35 | 4* | 11% | 0 | 0 |
| Total | 284 | 186 | Average 70% | 9 | 38 |

18774 admissions for 2022

2 in 5 admission were under 1yr age

Deprivation

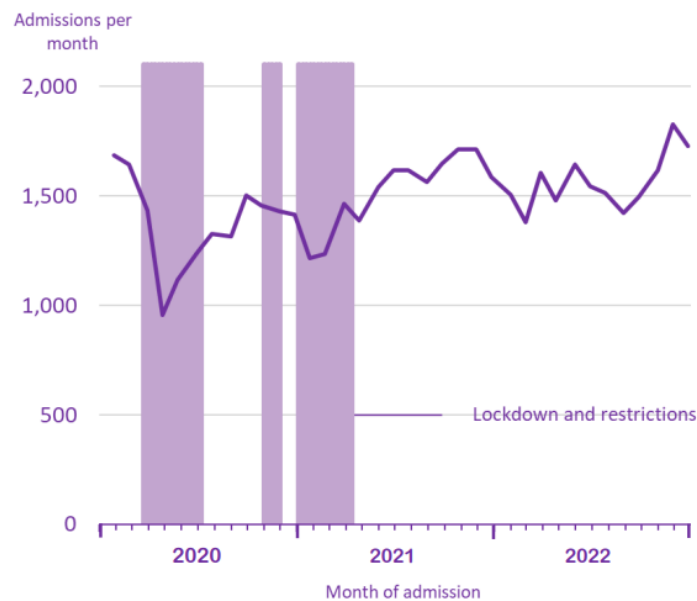
Ethnicity

Respiratory admission >30%

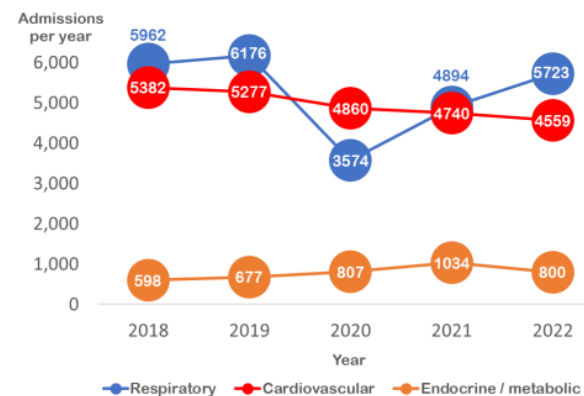
State of the Nation report 2023- Key take home messages

State of the Nation Report 2023

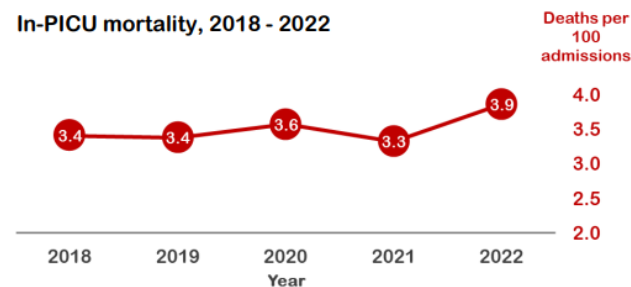
Admissions to paediatric intensive care across the UK and ROI, 2020 – 2022



Trends in admissions to paediatric intensive care by diagnostic group, 2018 – 2022



In-PICU mortality, 2018 - 2022

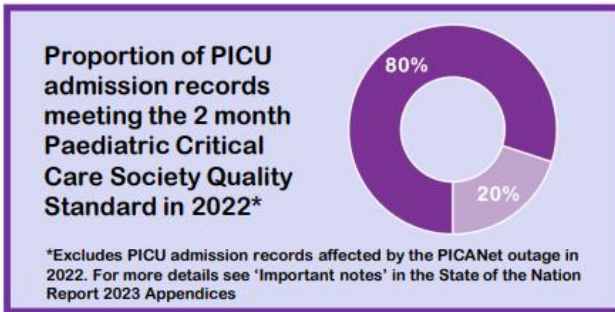




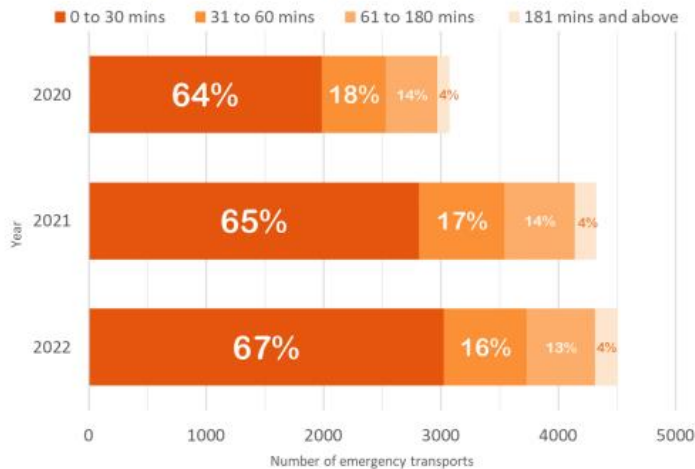
Paediatric Intensive Care Audit Network
picanet.org.uk · picanet@leeds.ac.uk



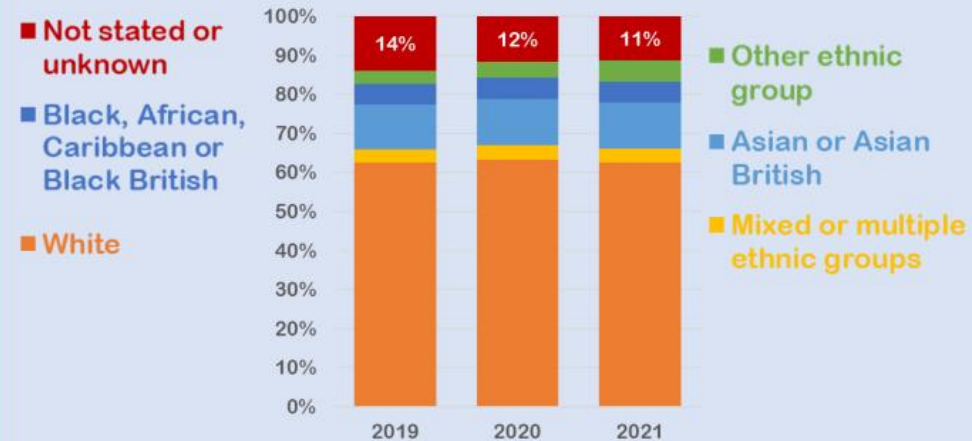
Key Metrics



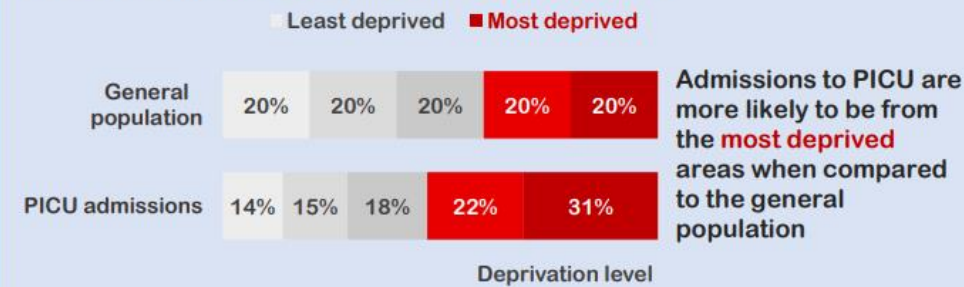
Increase in the proportion of emergency transports being mobilised within 30 minutes, 2020 – 2022



Ethnic distribution of PICU admissions



PICU admissions by deprivation level



> [Arch Dis Child](#). 2024 Apr 18;109(5):387-394. doi: 10.1136/archdischild-2023-325986.

Characteristics of children requiring admission to neonatal care and paediatric intensive care before the age of 2 years in England and Wales: a data linkage study

Sarah E Seaton ¹, Cheryl Battersby ², Peter J Davis ³, Alan C Fenton ⁴, Josie Anderson ⁵,
Tim J van Hasselt ⁶, Elizabeth Draper ⁶

> [BMC Pediatr](#). 2023 Aug 24;23(1):421. doi: 10.1186/s12887-023-04254-0.

Impact of prematurity on long-stay paediatric intensive care unit admissions in England 2008–2018

Tim J van Hasselt ¹, Hari Krishnan Kanthimathinathan ², Trishul Kothari ³, Adrian Plunkett ²,
Chris Gale ⁴, Elizabeth S Draper ⁵, Sarah E Seaton ⁵

Challenges of PICU



Conflict/ disagreements



Complexity of illness/ Long term ventilation



Length of stay



Preventative medicine/patient safety



Workforce wellbeing

Conflict and disagreements between families and clinical teams

Ranging from challenges at the bedside to mediation and - rarely but significantly - court proceedings.



Chronic complex conditions and long-term ventilation

There is a rapidly rising prevalence of chronic complex conditions in the PCC population, associated with ethical challenges and greater prevalence of moral distress amongst staff.



Paediatric Critical Care Capacity

Paediatric critical care units are struggling to cope with compromised capacity attributed to the rising number of admissions, an increased number of long stay patients, and a workforce under huge strain. Compromised bed capacity in turn contributes to staff burnout, long-distance patient transfers, and delayed elective surgery.



A snapshot of bed capacity

Paediatric Intensive Care Unit Dashboard - Status update: 22 December 2022



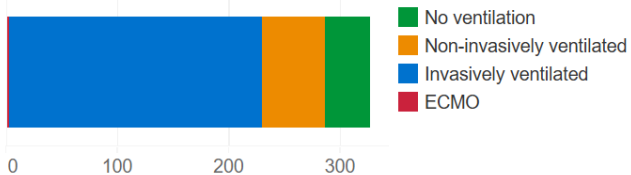
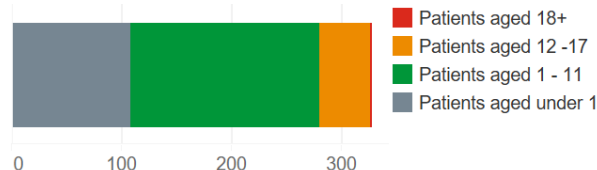
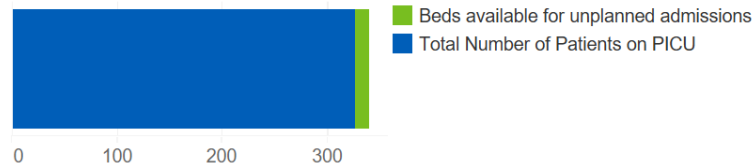
National Status: 326 Patients

Occupancy

Overall National Occupancy is at 96%; 0.7% less than yesterday.
19 Units have declared greater than 85% Occupancy.

Data Submissions

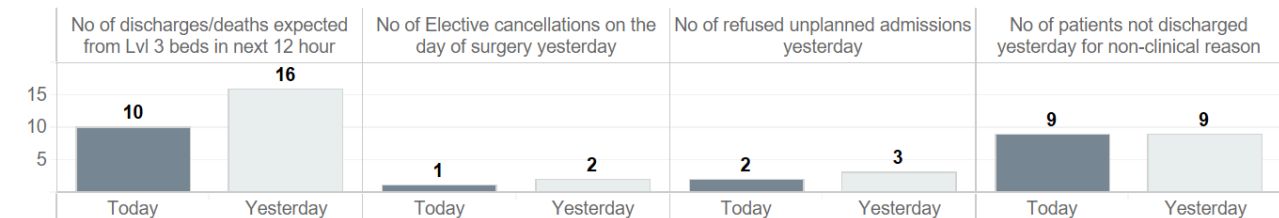
12 Units updated before the data extraction today.
5 Units have not submitted their data in the last 48 hours.



| Region | Unit | Occupancy % | Total Number of Patients on PICU | Beds available for unplanned a.. | Invasively ventilated | Bedside staff on shift |
|------------------------------|--|-------------|----------------------------------|----------------------------------|-----------------------|------------------------|
| East of England London | L Addenbrookes | 90.0% | 9 | 1 | 6 | 12 |
| | L Evelina Childrens Hospital | 95.8% | 23 | 1 | 16 | 23 |
| | L Great Ormond Street Hospital & NICU | 96.0% | 24 | 1 | 11 | 22 |
| | L Great Ormond Street Hospital CICU | 100.0% | 16 | 0 | 10 | 15 |
| | L Kings College Hospital | 100.0% | 14 | 0 | 7 | 9 |
| | L Royal Brompton Hospital | 92.9% | 13 | 1 | 6 | 11 |
| | L Royal London Hospital | 100.0% | 9 | 0 | 6 | 8 |
| | L St Georges Hospital | 100.0% | 12 | 0 | 7 | 10 |
| | L St Marys Hospital | 91.7% | 11 | 1 | 9 | 11 |
| Midlands | M Birmingham Childrens Hospital | 100.0% | 31 | 0 | 25 | 29 |
| | M Leicester Royal Infirmary | 94.4% | 17 | 1 | 16 | 14 |
| | M Nottingham Childrens Hospital | 87.5% | 7 | 1 | 6 | 12 |
| | M Royal Stoke University Hospital | 100.0% | 7 | 0 | 6 | 7 |
| North | N Alder Hey Childrens Hospital | 86.7% | 13 | 2 | 10 | 16 |
| | N Leeds General Infirmary | 100.0% | 12 | 0 | 12 | 11 |
| | N Royal Manchester Childrens Hospital | 94.4% | 17 | 1 | 14 | 19 |
| | N Royal Victoria Infirmary | 91.7% | 11 | 1 | 8 | 10 |
| | N Sheffield Childrens Hospital | 100.0% | 18 | 0 | 9 | 16 |
| | N The Freeman Hospital | 100.0% | 8 | 0 | 4 | 10 |
| Northern Ireland Scotland | X Royal Belfast Hospital for Sick Children | | 0 | | | |
| | X Edinburgh Royal Hospital for Sick Children | | 0 | | | |
| | X Glasgow Royal Hospital for Sick Children | | 0 | | | |
| South | S Bristol Childrens Hospital | 100.0% | 17 | 0 | 13 | 17 |
| | S John Radcliffe Hospital | 81.3% | 13 | 3 | 6 | 14 |
| | S Southampton General Hospital | 100.0% | 14 | 0 | 14 | 13 |
| Wales | X Cardiff Childrens Hospital for Wales | 100.0% | 10 | 0 | 8 | 9 |

Last Updated: ■ Today ■ Yesterday ■ 2+ Days Ago

Patient Flow



Paediatric Intensive Care Unit Dashboard (as at 21 November 2023)



Baseline Beds

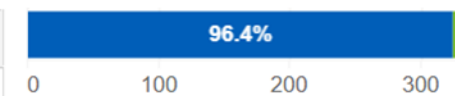
| Level 2 Beds | Level 3 Beds |
|--------------|--------------|
| 76 | 318 |

PIMS-TS

| Patients with PIMS-TS |
|-----------------------|
| 0 |

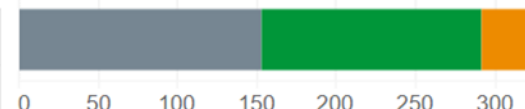
Bed Numbers

| Total Number of Patients on PICU | Beds available for unplanned | Bedside staff on shift | Units not meeting staffing ratios |
|----------------------------------|------------------------------|------------------------|-----------------------------------|
| 325 | 12 | 312 | 6 |



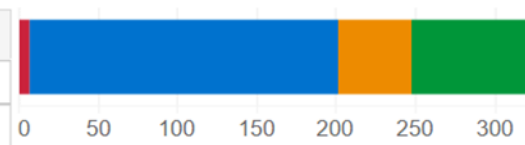
Patient Age

| Patients aged under 1 | Patients aged 1 - 11 | Patients aged 12 -17 | Patients aged 18+ |
|-----------------------|----------------------|----------------------|-------------------|
| 153 | 139 | 32 | 1 |



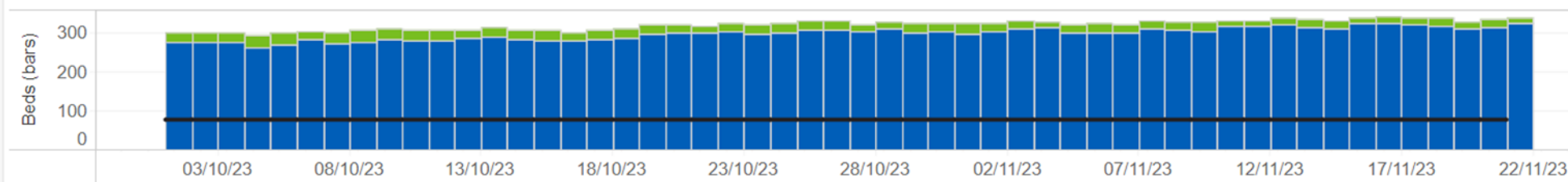
Ventilated Patients

| Invasively ventilated | Non-invasively ventilated | No ventilation |
|-----------------------|----------------------------------|----------------|
| 195 | 46 | 77 |
| 7 | No of children supported on ECMO | |



CRITCON Score TBC

Trend Chart



Date range (for chart)

Last 2 months

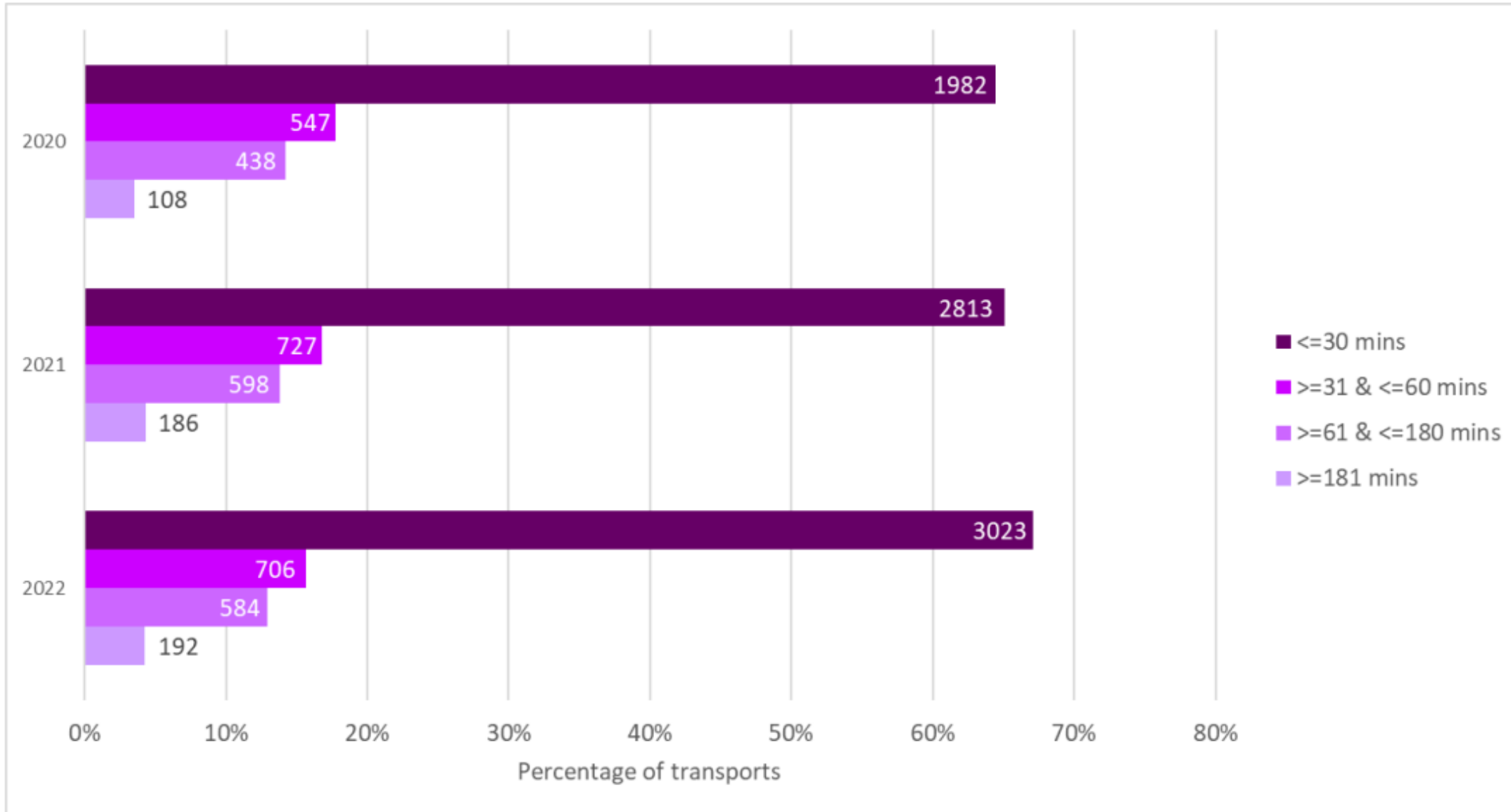
Baseline Beds

Level 2

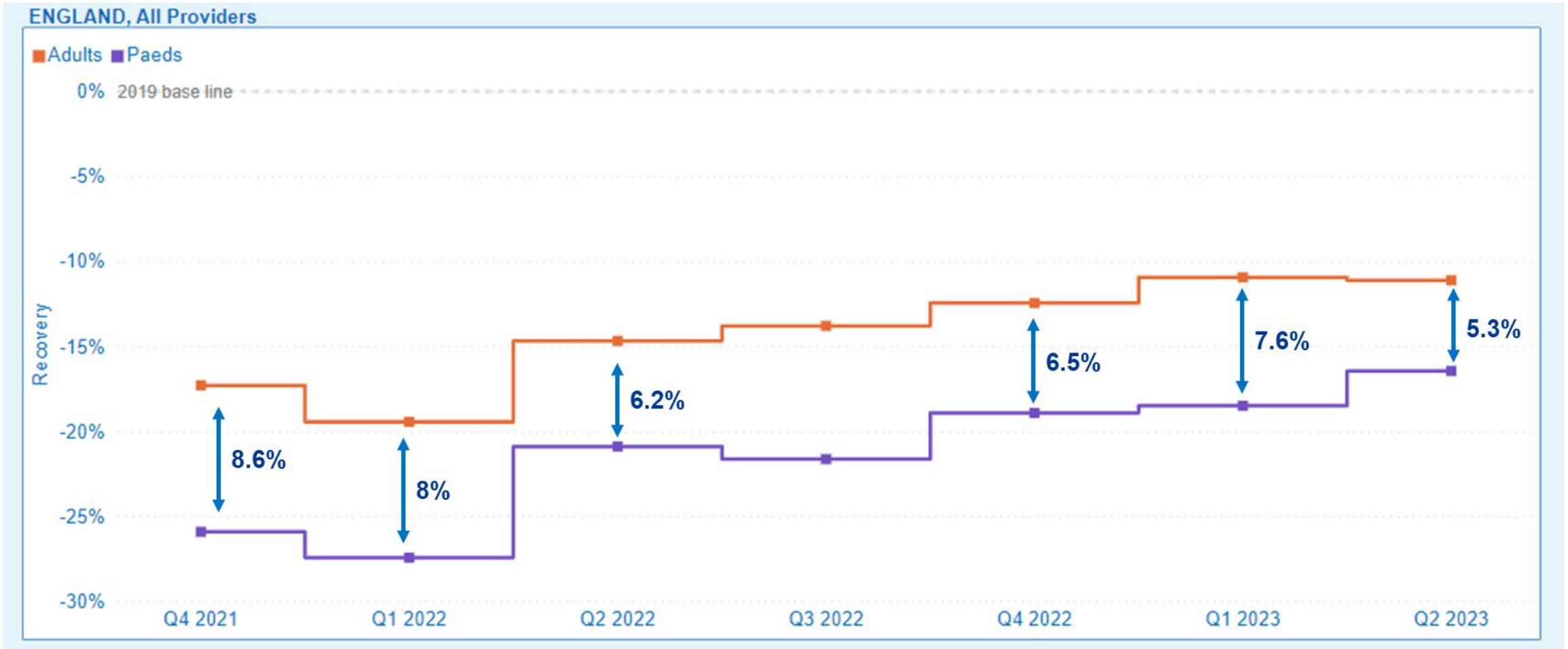
- Beds available for unplanned admissions
- Total Number of Patients on PICU
- Baselines beds

For queries please email NHSI.NationalAEDashboardSupport@nhs.net

Mobilisation times - transport

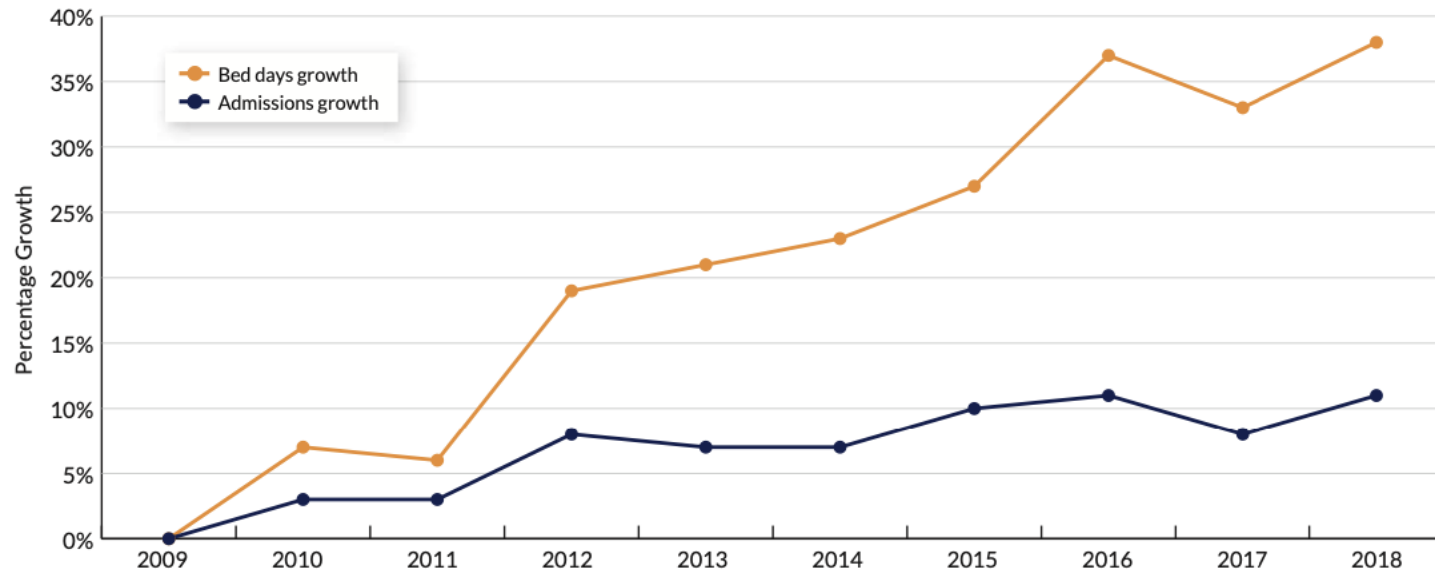


Waiting lists



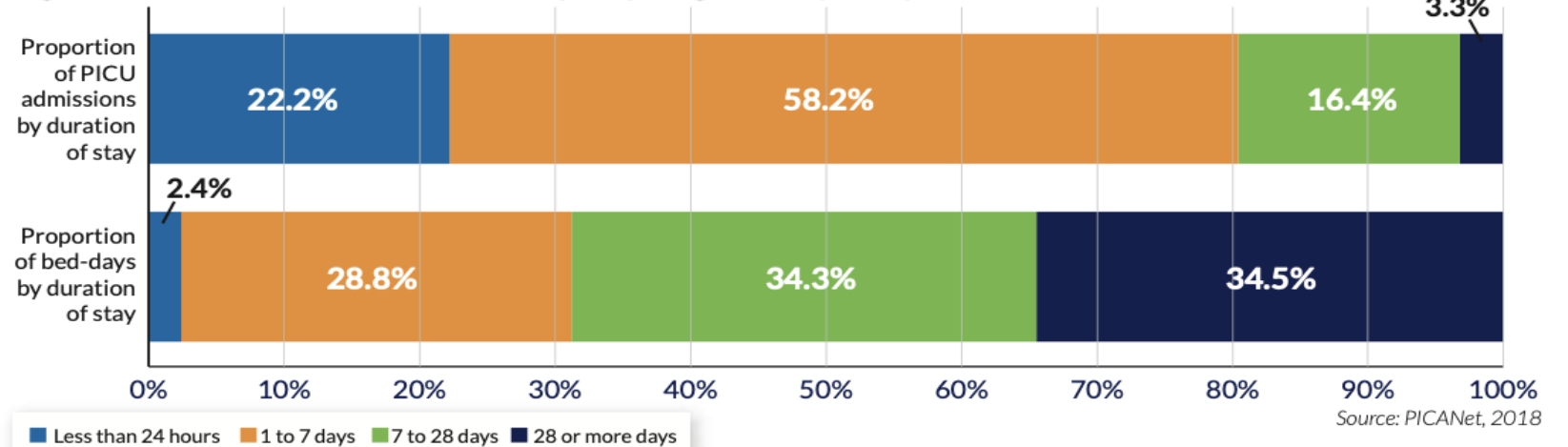
Length of Stay

Figure 3: Growth in Bed Days and Admissions since 2009



Source: PICANet Annual Reports 2009-2018

Figure 4: Admissions and Bed Utilisation Split by Length of Stay Group



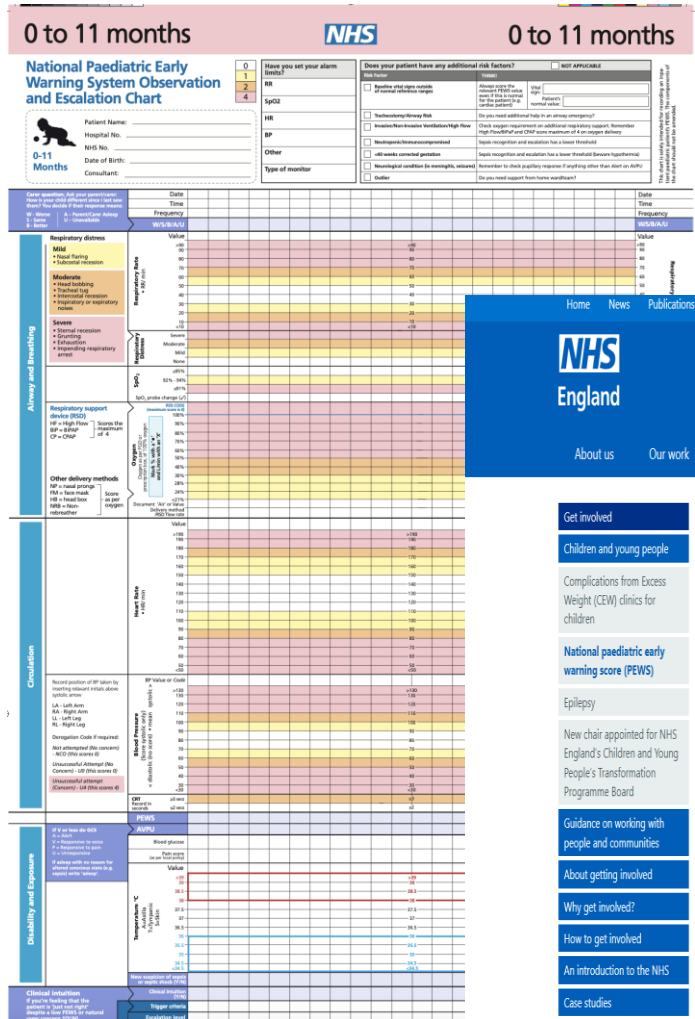
Source: PICANet, 2018

Preventative Medicine/Patient Safety

SPOT (national paediatric warning score)

NEW NHS warning system for parents to help tackle 'avoidable' child deaths

Care will be escalated regardless of other clinical observations if a parent raises alarm over a child's health under the new standard.



- Get involved
- Children and young people
- Complications from Excess Weight (CEW) clinics for children
- National paediatric early warning score (PEWS)
- Epilepsy
- New chair appointed for NHS England's Children and Young People's Transformation Programme Board
- Guidance on working with people and communities
- About getting involved
- Why get involved?
- How to get involved
- An introduction to the NHS
- Case studies
- Learning and support offers
- Resources

Home > Get involved > Children and young people > National paediatric early warning score (PEWS)

National paediatric early warning score (PEWS)

NHS England is rolling out a national standardised approach of tracking the deterioration of children in hospital.

The National Paediatric Early Warning Score or PEWS will allow for consistency in how deterioration in children is recognised.

Currently, many hospitals track deterioration differently and this can present challenges for staff working across different hospital sites.

The project started in 2018 and is a collaboration between NHS England and the Royal College of Paediatrics and Child Health (RCPCH) and the Royal College of Nursing (RCN).

The PEWS charts have been collaboratively developed by clinical teams across England and will be used on general children's wards.

Building on a programme of research and clinical piloting, the PEWS charts will be rolled out over the coming month.

The National PEWS charts should be used following completion of the associated e-learning module.

A digital specification has also been launched and is available as a beta specification. Find out more about the e-learning and the beta digital specification on the [FutureNHS SPOT page](#).

To find out more information visit the [Royal College of Paediatric Health](#) and [Royal College of Nursing](#).



PAEDIATRIC STANDARD WILL BE SPLIT INTO FOUR DIFFERENT... COMPRISE A SCORING SYSTEM FOR HEALTHCARE STAFF... THEIR CONCERNS (JONATHAN BRADY/PA) PA WIRE

Children's health warning system rolled out by NHS

4 days ago



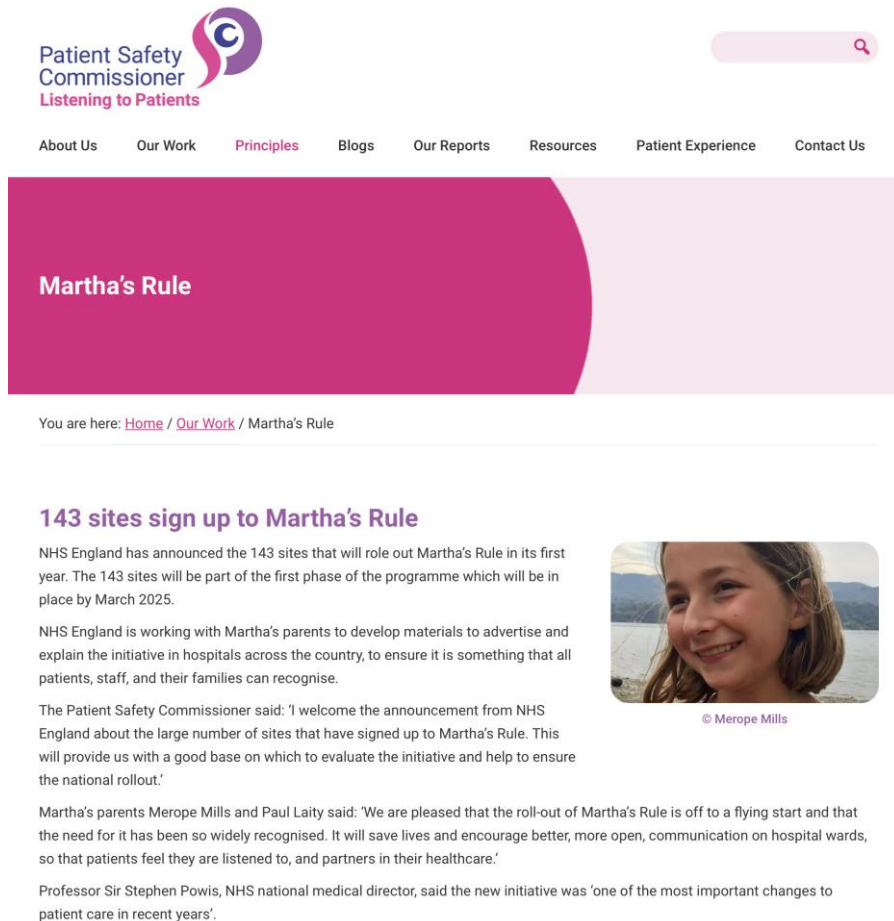
By Smitha Mundasad
Health reporter

NHS England is rolling out a national early-warning system to help medics spot and treat a deteriorating child patient quickly - and act on parents' concerns.

Parents and carers are "at the heart of the new system", NHS chiefs say. Scores for signs such as blood pressure, heart rate and oxygen levels will be tracked on a chart.

Marthas Rule and PCCOT services

3 ODN sites



The screenshot shows the Patient Safety Commissioner website. The header includes the logo and navigation links: About Us, Our Work, Principles, Blogs, Our Reports, Resources, Patient Experience, and Contact Us. The main content area features a large pink banner with the text "Martha's Rule". Below this, a breadcrumb trail reads "You are here: [Home](#) / [Our Work](#) / Martha's Rule". The main article is titled "143 sites sign up to Martha's Rule" and contains the following text:


NHS England has announced the 143 sites that will roll out Martha's Rule in its first year. The 143 sites will be part of the first phase of the programme which will be in place by March 2025.

NHS England is working with Martha's parents to develop materials to advertise and explain the initiative in hospitals across the country, to ensure it is something that all patients, staff, and their families can recognise.

The Patient Safety Commissioner said: 'I welcome the announcement from NHS England about the large number of sites that have signed up to Martha's Rule. This will provide us with a good base on which to evaluate the initiative and help to ensure the national rollout.'

Martha's parents Merope Mills and Paul Laity said: 'We are pleased that the roll-out of Martha's Rule is off to a flying start and that the need for it has been so widely recognised. It will save lives and encourage better, more open, communication on hospital wards, so that patients feel they are listened to, and partners in their healthcare.'

Professor Sir Stephen Powis, NHS national medical director, said the new initiative was 'one of the most important changes to patient care in recent years'.



© Merope Mills

PCCOT services 24 /7 are available in approximately 11 of 20 in England

PCCOT services in the form of a pilot are available in 3 of 20 PCC's.

PCCOT services have some level of cover, but not 24/7 in 2 of 20 PCC's.

PCCOT services are not available in 4 of 20 PCC's.

Workforce wellbeing



High vacancy rates



Junior workforce



Pay



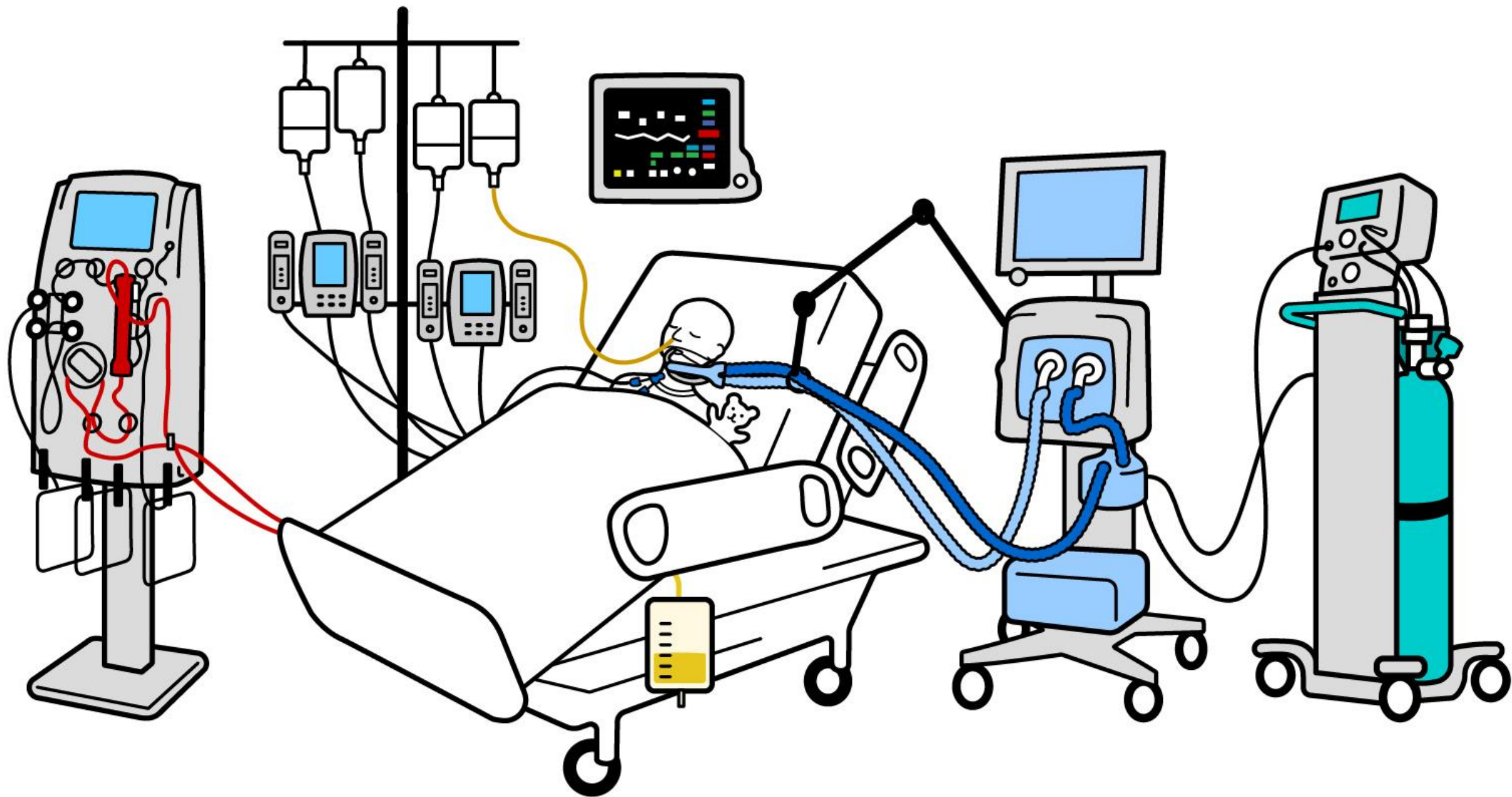
Job progression



Education and training

Paediatric ICU nursing workforce - September 2023





Children admitted to AICU

| Year | Month | Under 1 year | | 1-4 years | | 5-10 years | | 11-15 years | | Total | |
|------------------|--------|--------------|---------------|-----------|---------------|------------|---------------|-------------|---------------|------------|--------|
| | | n | % | n | % | n | % | n | % | n | % |
| 2020 | Female | 24 | (17.4) | 34 | (24.6) | 15 | (10.9) | 65 | (47.1) | 138 | (47.6) |
| | Male | 26 | (17.1) | 33 | (21.7) | 28 | (18.4) | 65 | (42.8) | 152 | (52.4) |
| 2020Total | | 50 | (17.2) | 67 | (23.1) | 43 | (14.8) | 130 | (44.8) | 290 | |
| 2021 | Female | 13 | (9.2) | 24 | (16.9) | 24 | (16.9) | 81 | (57.0) | 142 | (46.3) |
| | Male | 28 | (17.0) | 29 | (17.6) | 25 | (15.2) | 83 | (50.3) | 165 | (53.7) |
| 2021Total | | 41 | (13.4) | 53 | (17.3) | 49 | (16.0) | 164 | (53.4) | 307 | |
| 2022 | Female | 22 | (12.4) | 41 | (23.2) | 28 | (15.8) | 86 | (48.6) | 177 | (46.7) |
| | Male | 36 | (17.8) | 45 | (22.3) | 27 | (13.4) | 94 | (46.5) | 202 | (53.3) |
| 2022Total | | 58 | (15.3) | 86 | (22.7) | 55 | (14.5) | 180 | (47.5) | 379 | |

Number of children admitted to an AICU by diagnostic group and age group of the child.



| Year | Diagnostic group | Under 1 year | | 1-4 years | | 5-10 years | | 11-15 years | | Total | |
|-------------------|------------------|--------------|---------------|-----------|---------------|------------|---------------|-------------|---------------|------------|--------|
| | | n | % | n | % | n | % | n | % | n | % |
| 2020 | Respiratory | 27 | (31.8) | 32 | (37.6) | 8 | (9.4) | 18 | (21.2) | 85 | (29.3) |
| | Neurological | 16 | (16.8) | 27 | (28.4) | 24 | (25.3) | 28 | (29.5) | 95 | (32.8) |
| | Infection | 5 | (27.8) | | | | | 6 | (33.3) | 18 | (6.2) |
| | Musculoskeletal | 0 | (0.0) | 0 | (0.0) | 0 | (0.0) | 6 | (100.0) | 6 | (2.1) |
| | Other | | | | | 9 | (10.5) | 72 | (83.7) | 86 | (29.7) |
| 2020 Total | | 48 | (16.6) | 59 | (20.3) | 41 | (14.1) | 130 | (44.8) | 290 | |
| 2021 | Respiratory | 30 | (33.0) | 18 | (19.8) | 10 | (11.0) | 33 | (36.3) | 91 | (29.6) |
| | Neurological | 8 | (8.7) | 29 | (31.5) | 28 | (30.4) | 27 | (29.3) | 92 | (30.0) |
| | Infection | | | 5 | (33.3) | | | 5 | (33.3) | 15 | (4.9) |
| | Musculoskeletal | 0 | (0.0) | 0 | (0.0) | 0 | (0.0) | 25 | (100.0) | 25 | (8.1) |
| | Other | | | | | 9 | (10.7) | 74 | (88.1) | 84 | (27.4) |
| 2021 Total | | 38 | (12.4) | 52 | (16.9) | 47 | (15.3) | 164 | (53.4) | 307 | |
| 2022 | Respiratory | 36 | (31.3) | 29 | (25.2) | 17 | (14.8) | 33 | (28.7) | 115 | (30.3) |
| | Neurological | 9 | (7.4) | 44 | (36.1) | 30 | (24.6) | 39 | (32.0) | 122 | (32.2) |
| | Infection | 10 | (30.3) | 10 | (30.3) | 4 | (12.1) | 9 | (27.3) | 33 | (8.7) |
| | Musculoskeletal | 0 | (0.0) | 0 | (0.0) | 0 | (0.0) | 20 | (100.0) | 20 | (5.3) |
| | Other | 3 | (3.4) | 3 | (3.4) | 4 | (4.5) | 79 | (88.8) | 89 | (23.5) |
| 2022 Total | | 58 | (15.3) | 86 | (22.7) | 55 | (14.5) | 180 | (47.5) | 379 | |

Length of stay on AICU

| Year | Age group | n | Median | IQR | Range |
|------|--------------|-----|--------|-----|-------|
| 2020 | Under 1 year | 49 | 1 | 1-2 | 1-2 |
| | 1-4 years | 65 | 1 | 1-2 | 1-2 |
| | 5-10 years | 43 | 1 | 1-2 | 1-3 |
| | 11-15 years | 126 | 2 | 1-2 | 1-49 |
| 2021 | Under 1 year | 41 | 1 | 1-1 | 1-7 |
| | 1-4 years | 53 | 1 | 1-1 | 1-2 |
| | 5-10 years | 49 | 1 | 1-2 | 1-3 |
| | 11-15 years | 164 | 2 | 1-2 | 1-13 |
| 2022 | Under 1 year | 58 | 1 | 1-2 | 1-3 |
| | 1-4 years | 86 | 1 | 1-2 | 1-3 |
| | 5-10 years | 55 | 1 | 1-2 | 1-4 |
| | 11-15 years | 180 | 2 | 1-3 | 1-53 |

OPTICAL- Optimising Paediatric Transition to Intensive Care for Adults

Key unknowns are:

- The size of the population that requires transition;
- Which teenagers will need intensive care after 16;
- How many teenagers admitted to paediatric ICU for a mental health crisis are later admitted to adult ICU;
- How clinical care and patient experience can be improved as part of the transition.

Food for thought.....

Quality Standards for the Care of Critically Ill or Injured Children

6th Edition
October 2021



GUIDELINES FOR THE PROVISION OF INTENSIVE CARE SERVICES

Version 2.1
June 2022

Paediatric Critical Care GIRFT Programme National Specialty Report

by Professor Kevin Morris
GIRFT Clinical Lead for Paediatric Critical Care
with Dr Peter-Marc Fortune
GIRFT Clinical Advisor for Paediatric Critical Care

April 2022



CQC Safeguarding children training position statement



Guidance for:
Paediatric to Adult
Critical Care Transition

**Standards for
competence for
registered nurses**

Education, training and support is key...



About Special Interest Groups Affiliated and Regional Groups Events and Conference Education/Training Resources



Paediatric Critical Care



The NPPG PCC sub-group is for pharmacists working clinically within paediatric critical care. The group is intended as a networking opportunity to share practice and to provide support for pharmacists new to the speciality.

The aim of the group is to be made up of at least one named pharmacist for each PCC unit within the UK, and to provide an annual meeting for members.

The link with the paediatric intensive care society is key to multi-disciplinary working and promoting the profile of clinical pharmacy within the PCCU setting. This link is developing and currently mainly concerns NPPG presence on the steering group for the creation of new national standards for paediatric critical care.

Objectives:

1. To support, promote and advise on delivery of best pharmaceutical care to PCC patients.
2. To maintain a network and provide a platform for paediatric critical care pharmacy staff to enhance management of children's medicines.
3. To represent and champion PCC pharmacy within the NPPG.
4. To develop and maintain a link with PCCS and encourage pharmacist PCCS membership
5. To develop educational resources and signpost to resources developed by other providers.
6. To assist NPPG committee responses to national consultations.
7. To encourage pharmaceutical research in the area of PCC.

National Paediatric Critical Care Nursing Competencies



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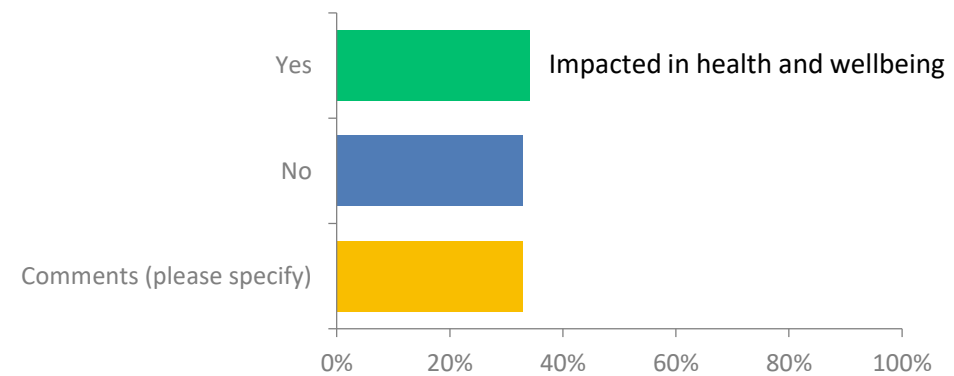
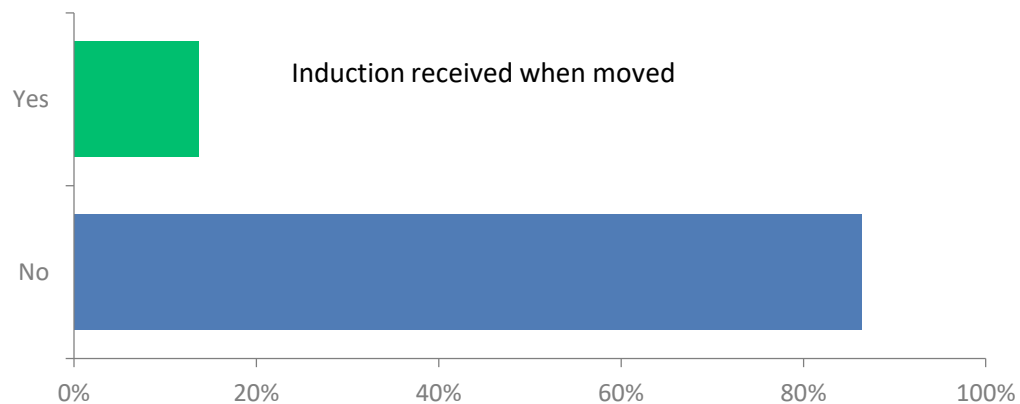
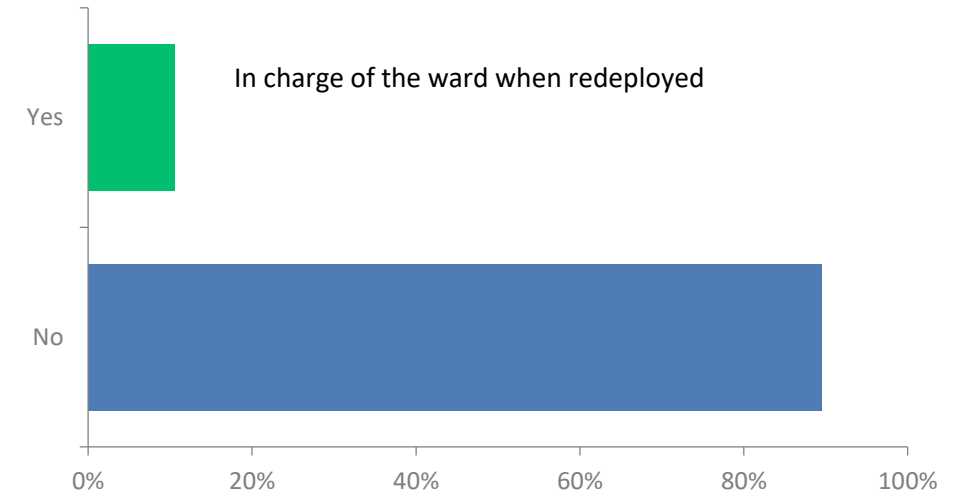
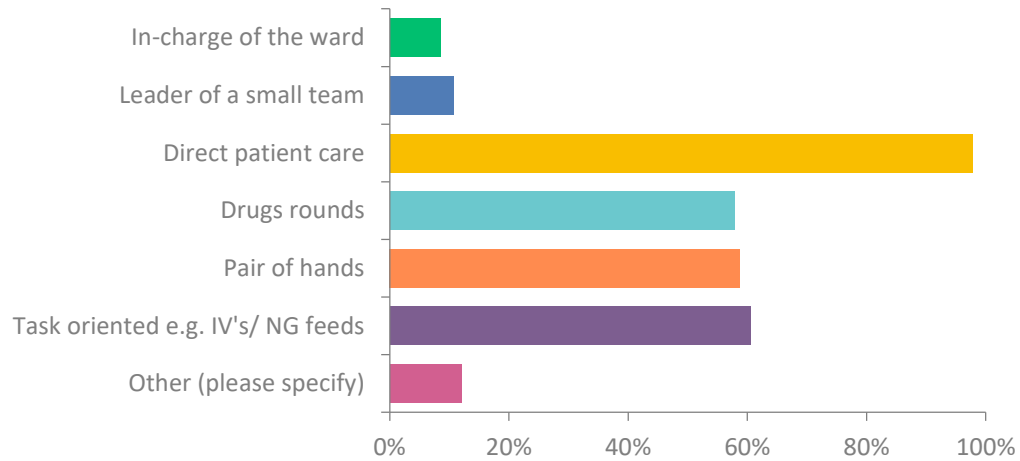
Sections



This programme is in partnership with...



Redeployment impacts on morale



Next steps



Induction and redeployment package for staff



Publication of results



Integration into standards



Data capture





NHS job evaluation reviews: Getting you the pay you deserve


This document provides guidance to RCN members employed in the NHS who believe they are not employed on the right Agenda for Change (AfC) pay band.



The RCN @theRCN · Oct 3

When was the last time you read your **job** description? It should reflect the work you do.

Read about how to seek **job evaluation** from your employer:
bit.ly/3V0p5NW



Your employer is obliged to:

- Ensure your job description is accurate and up to date
- Evaluate your job description against a set of agreed criteria
- Re-band your role if necessary

|| GIF

Commonality

Children aren't scary

Education is key

The challenges are similar

Collaboration and one voice are key

Questions/Thoughts



Thank you

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