National Paediatric Critical Care Audit

UPCARE: Programme name - please do not change this field.*	National Paediatric Critical Care Audit
Workstream name (if applicable) - please do not change this field.*	Not applicable
Contract status	Ongoing
Audit or non-audit	Audit
HQIP commissioned*	Yes
HQIP AD	JC
HQIP PM	NP
1.0 Included in current NHS Quality Accounts*	Yes
1.1a Geographical coverage - HQIP agreement*	England
1.1b Geographical coverage - External agreement*	Wales; Scotland; Northern Ireland; Republic of Ireland
1.2a Topic - please select which ONE of the following best describes the topic area for the programme or workstream. If more than one apply, please select 'Other' and add comment to the next question.*	Other (please describe in next question)
1.2b If you selected 'Other' above, please provide details.*	Child & Adolescent; Paediatric Critical Care
1.3a Healthcare setting*	NHS secondary or tertiary care; Independent sector healthcare (non-NHS); NHS-funded care delivered by independent provider; Paediatric
1.4 Inclusion and exclusion criteria*	Data is submitted into the secure web-based application database called PICANet Web by Paediatric Intensive Care Units and Specialist Paediatric Critical Care

Transport Services for all children and young people accepted for referral, transported or admitted to designated paediatric intensive care units (PICUs) providing paediatric level 3 critical care (as defined by the Royal College of Paediatrics and Child Health).

1.5 Methods of data submission*	Bespoke data submission by healthcare provider; Extraction from existing data source(s)
1.6a 2023/24 data submission closes - please indicate date, series of dates or frequency.*	Continuous data collection (no closure) 01 Apr 2023 – 31 Mar 2024.
1.6b 2024/25 data submission closes - please indicate date, series of dates or frequency.*	Continuous data collection (no closure) 01 Apr 2024 – 31 Mar 2025.
1.6c 2025/26 data submission closes - please indicate date, series of dates or frequency.*	Continuous data collection (no closure) 01 Apr 2025 – 31 Mar 2026.
1.7 Data flow diagram	The NPCCA data flows for England, Wales and Scotland are available on the Policies page of the PICANet website: https://www.picanet.org.uk/wp-content/uploads/sites/25/2025/01/PICANet-NPCCA-Data-Flow_v11-Jan2025_England_Wales_Scotland.pdf
1.8 Data quality & analysis plan	The PICANet database has automated internal data validation routines at the point of data entry highlighting data quality issues in real-time e.g. missing / inconsistent data. This is also a validation review tool within PICANet Web, which provides an interactive overview of each organisation's validation queries, covering the number of admission/referral/transport events, timeliness of data entry, completion and validation queries.

The PICANet clinical validation team support data quality in the following ways:

- Providing 4-6 weekly validation reports to organisations flagging data quality issues.
- Undertaking 6 monthly data quality/ cleaning exercises with organisations.
- Online validation visits every 12 – 18 months per participating organisation.

Plus the following are in place:

- Data quality checks prior to analysis to identify duplicate records and inconsistencies.
- Validation of addresses and postcodes.
- Annual review of low matches on patient ID assignment.
- NHS number validation using the Modulus 11 algorithm.

The NPCCA Statistical Analysis Plan for the State of the Nation Report is updated annually. PICANet SAP 2024 v1.1 is available here:

https://www.picanet.org.uk/wp-content/uploads/sites/25/2024/12/PICANet-Statistical-Analysis-Plan-2024_v1.1_2024_11_18.pdf

1.9 Outlier policy

The *PICANet Outlier Policy* is published on the PICANet website: https://www.picanet.org.uk/wp-content/uploads/sites/25/2024/08/PICANet_Outlier_Policy_2024_v4.0_2024-08-06.pdf

2.1 Outcome measures

The audit provides comparative performance data for Paediatric Intensive Care Units (PICUs) and Specialist Paediatric Critical Care Transport Services. Each hospital has its performance measured against: Other units / transports teams across the UK and Republic of Ireland, Paediatric Critical Care Standards and NHS England Specialised Services Quality Dashboard targets.

The current outcome metrics are:

- In-PICU risk adjusted mortality

Evidence base: The risk adjustment model used to determine risk-adjusted mortality (Paediatric Index of Mortality version 3) has been externally validated (DOI: 10.1097/PCC.0b013e31829760cf).

Measures quality indicator PIC01 from the NHS England *Paediatric Intensive care (PICU) Quality Dashboard 2021/2022.*

- Emergency re-admissions within 48 hours

Evidence base: Clinical consensus within PICANet Clinical Advisory Group and Steering Group and designed to measure quality indicator PIC04 from the NHS England *Paediatric Intensive care (PICU) Quality Dashboard 2021/2022.*

2.2 Process measures

The current process metric is:

- Retrieval mobilisation times

Evidence base: Clinical consensus within PICANet Clinical Advisory Group and Steering Group and designed to measure quality indicator PIC14i from the NHS England *Paediatric Intensive care (PICU) Quality Dashboard 2021/2022* which recommends that, for emergency retrievals, the team departs the transport base within 30 minutes from the time the referral is accepted for retrieval.

- Unplanned extubations in PICU

Evidence base: Clinical consensus within PICANet Clinical Advisory Group and Steering Group and designed to measure quality indicator PIC08a from the *NHS England Paediatric Intensive care (PICU) Quality Dashboard 2021/2022.*

2.3 Organisational measures

Case ascertainment and timeliness of data submission.

2.4 Patient reported outcome measures

Patient reported outcome measures are not included in the audit.

2.5 Patient reported experience measures	Patient reported experience measures are not included in the audit.
2.6a Do measures align with any of the following sources of evidence (select all that apply)	Professional society; Other (please describe in next question)
2.6b Evidence supplemental information	NHS England Specialised Services Quality Dashboards - Paediatric Intensive Care (PICU) Quality Dashboard. There is no applicable NICE guidance for the National Paediatric Critical Care Audit (PICANet).
3.1 Results visualisation	Interactive online portal (run charts available); Annual report; Static data files
3.2a Levels of reporting*	National; Trust or health board; Hospital or specialist unit; Integrated care system (ICS); NHS region or other geographic area; Team/ ward
3.3 Timeliness of results feedback	Within 24 hours; Within 3 months; Within 1 month; Within 1 year
3.4 Link to dynamic reporting*	https://www.picanet.org.uk/data-collection/picanet-data-dashboard/
2023/24 Dataset covers the period FROM/TO (within financial year 01/04 to 31/03)*	04/01/2023 - 03/31/2024
2024/25 Dataset covers the period FROM/TO (within financial year 01/04 to 31/03)*	04/01/2024 - 03/31/2025
2025/26 Dataset covers the period FROM/TO (within financial year 01/04 to 31/03)*	04/01/2025 - 03/31/2026
Dataset #1 name	Core dataset (admission)
Dataset #1 type*	Clinical audit
Dataset #1 population coverage*	All eligible patients
Dataset #1 items collected (n)	164
Dataset #1 items from existing national	46

datasets (n)	
Dataset #1 use of existing national datasets	Paediatric critical care minimum dataset (PCCMDS)
Dataset #1 specification	The PICANet Admission Dataset Definitions Manual is available on the PICANet website: https://www.picanet.org.uk/wp-content/uploads/sites/25/2025/01/PICANet-Web-Admission-Dataset-Manual-v6.0-January-2025.pdf
Dataset #2 name	Core dataset (referral)
Dataset #2 type*	Clinical audit
Dataset #2 population coverage*	All eligible patients
Dataset #2 items collected (n)	31
Dataset #2 items from existing national datasets (n)	0
Dataset #2 use of existing national datasets	N/A
Dataset #2 specification	The PICANet Referral & Transport Dataset Definitions Manual is available on the PICANet website: https://www.picanet.org.uk/wp-content/uploads/sites/25/2025/01/PICANet-Referral-Transport-Dataset-Definitions-Manual-v3.0-January-2025.pdf
Dataset #3 name	Core dataset (transport)
Dataset #3 type*	Clinical audit
Dataset #3 population coverage*	All eligible patients
Dataset #3 items collected (n)	172
Dataset #3 items from existing national datasets (n)	0
Dataset #3 use of existing national datasets	N/A

Dataset #3 specification	The PICANet Referral & Transport Dataset Definitions Manual is available on the PICANet website: https://www.picanet.org.uk/wp-content/uploads/sites/25/2025/01/PICANet-Referral-Transport-Dataset-Definitions-Manual-v3.0-January-2025.pdf
Dataset #4 name	Customised data collections (multiple custom collections accounted for, some collected on an opt in basis)
Dataset #4 type*	Clinical audit
Dataset #4 population coverage*	All eligible patients
Dataset #4 items collected (n)	0
Dataset #4 items from existing national datasets (n)	0

Dataset #4 specification

Customised data collections collect additional data beyond the PICANet core dataset for the purposes of audit. There are no current customised collections. As and when these are added they will be listed here on the PICANet website (https://www.picanet.org.uk/data-collection/customised-data-collection/) with links to their data definitions manuals.

The COVID-19 customised data collection took place from April 2020 and ended on 04 June 2023: https://www.picanet.org.uk/wp-content/uploads/sites/25/2022/02/PICANet-COVID-19-II-Dataset-Definitions-Manual-v2.0_11Feb2022.pdf

The following custom audits were collected at a PICU level opt in basis for admissions up to 30 April 2022 :

- Renal Dataset: https://www.picanet.org.uk/wp-content/uploads/sites/25/2018/05/PICANet-Renal-Dataset-Definitions-v2.0.pdf
- Renal Daily Interventions: https://www.picanet.org.uk/wp-content/uploads/sites/25/2018/06/PICANET-Renal-Daily-Data-Definitions-Manual-v2.0.pdf

When was your healthcare quality improvement plan (referred to as a QI Plan) last reviewed? Please upload under 'Files' below using the HQIP naming convention (click on response to see pop-up help text).	09/17/2024

When were your clinical performance indicators (referred to as metrics) signed off by funders? Please upload under 'Files' below using the HQIP template and naming convention (click on response to see pop-up help text).

04/17/2024

Please add the hyperlink to where your clinical performance indicators (referred to as metrics) are published on your project website.*

https://www.picanet.org.uk/data-collection/picanet-data-dashboard/

National report publication date (within calendar year 01/01 - 31/12/2023)*

State of the Nation Report 2023, describing paediatric critical care activity occurring within PICUs in the UK and ROI during 2020 – 2022, published 14 Dec 2023.

Published/planned national report publication date (within calendar year 01/01 - 31/12/2024)*

State of the Nation Report 2024, describing paediatric critical care activity occurring within PICUs in the UK and ROI during 2021 – 2023, published 12 Dec 2024.

Planned national report publication date (within calendar year 01/01 - 31/12/2025)*

State of the Nation Report 2025, describing paediatric critical care activity occurring within PICUs in the UK and ROI during 2022 – 2024, planned publication date 11 Dec 2025.

Planned national report publication date (within calendar year 01/01 - 31/12/2026)*

State of the Nation Report 2026, describing paediatric critical care activity occurring within PICUs in the UK and ROI during 2023 – 2025, planned publication date Dec 2026.

Please add the most recent date that you have reviewed and updated an online version of UPCARE Workstream section(s) on your project's website (click into the response to see pop-up guidance).

01/31/2025

Please add a hyperlink to UPCARE

https://www.picanet.org.uk/

Workstream section(s) on your website (click into the response to see pop-up guidance).*

Files	20241122_Metrics_NPCCA.xlsx
	20240917_PICANet NPCCA QI Plan.pdf