Explanatory Notes

All cases (locked and unlocked) admitted to hospital between 01 January 2026 and 31 March 2026 have been included. Only cases where the necessary data are available have been included in the denominator for each individual analysis.

At hospital level, runcharts are compared to hospitals within the same ICB.

The results for process measures for which fewer than 10 cases have available data will not be reported. Instead the value will be marked as 'Insufficient data'.

Mortality

This section defines three key mortality measures for the monthly report. In all cases we include only patients whose surgery-to-discharge interval (Q4.1 - Q7.8) is ≤ 30 days, and we exclude any with missing discharge status (Q7.7) or missing dates (Q4.1/Q7.8).

1. 30-Day Observed (Crude) Mortality Rate

Let
- $d =$ number of patients who **died** within 30 days of surgery,
- $N =$ total number of patients with known discharge status (alive, died, or still in hospital at 60 days).

Then the crude 30-day mortality rate (as a percentage) is

$$\text{Crude } 30\text{-day Mortality Rate} = \frac{d}{N} \times 100.$$

2. Standardised Mortality Ratio (SMR)

Let
- $O = d$ = observed deaths within 30 days,
- $E = \sum_i \text{RiskScore}_i$ = sum of individual parsimonious NELA mortality risk scores for all N patients.

The SMR is

$$\text{SMR} = \frac{O}{E}.$$

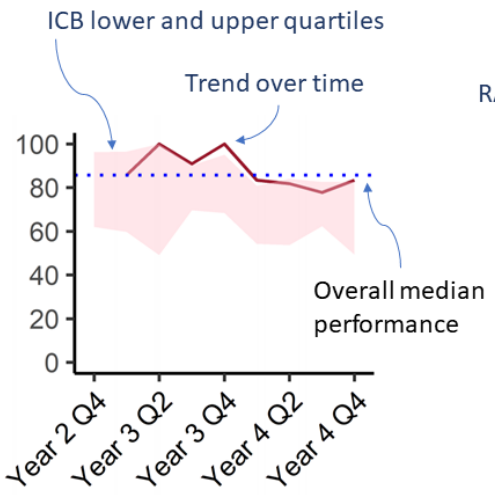
3. Risk-Adjusted Mortality

Combines the SMR with the **National** 30-day mortality rate for the examined three month period:

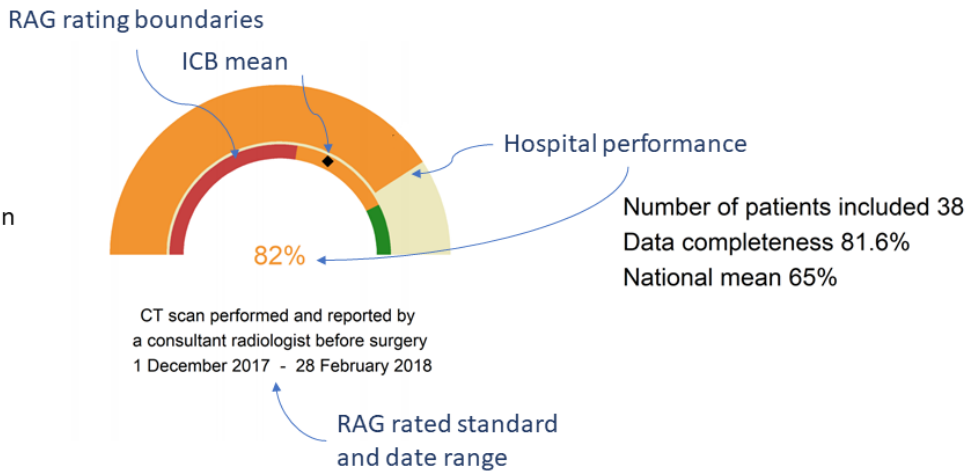
$$\text{Risk-Adjusted Mortality} = \text{SMR} \times \big(\text{National 30-day mortality}\big) \times 100.$$

For better insight to how these standards have been structured, please refer to the **NELA standards document.**

Quarterly mean performance

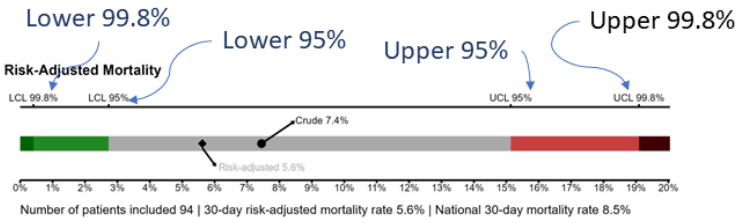


Overall performance



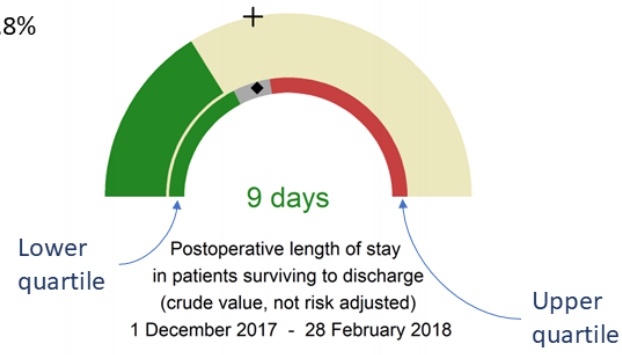
Risk-adjusted mortality

Rating boundaries are lower and upper 99.8% and 95% confidence limits



Non-risk-adjusted measures

Rating boundaries are lower and upper national quartiles



NELA National Emergency Laparotomy Audit

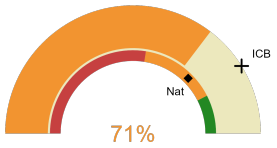
Monthly Report

Royal Bolton Hospital

2025-26 Reporting Period 12: 01 January 2026 - 31 March 2026

These plots represent patients having an emergency laparotomy during Year 2025-26 Reporting Period 12 of NELA data collection. This version will be made publicly available via the NELA website. Feedback from participating hospitals is welcome.

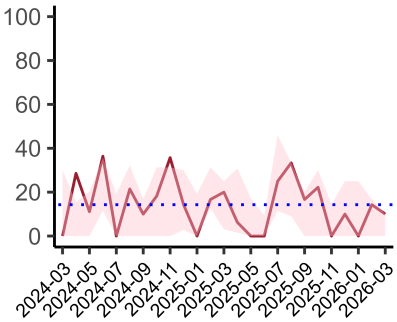
NELA process and outcome measures

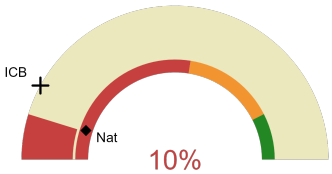


Estimated case ascertainment
01 January 2026 - 31 March 2026

Estimated case ascertainment (Based on HES/PEDW Data)

Expected number of cases 41
Total cases entered 29
Cases locked 29
Cases unlocked 0

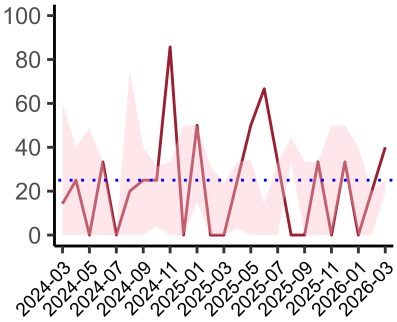


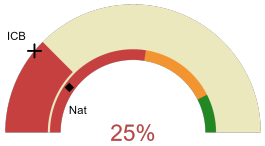


Proportion of patients who had a CT scan that was reported by a senior radiologist (ST3+) and communicated with the team in the correct time scale before surgery
01 January 2026 - 31 March 2026

CT reported by a senior radiologist (ST3+) and communicated with the team in the correct time scale before surgery.

National mean 10%
ICB mean 16%
Number of patients included 21
Data completeness 86%

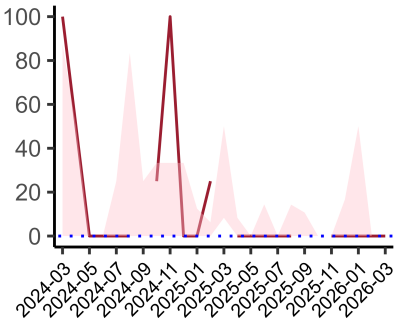


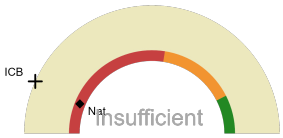


Proportion of patients with suspected sepsis or infection that have antibiotic administration within the correct clinical timeframe
01 January 2026 - 31 March 2026

Combined Infection management standard - antibiotic administration within the correct clinical timeframe

National mean 20%
ICB mean 22%
Number of patients included 12
Data completeness 100%

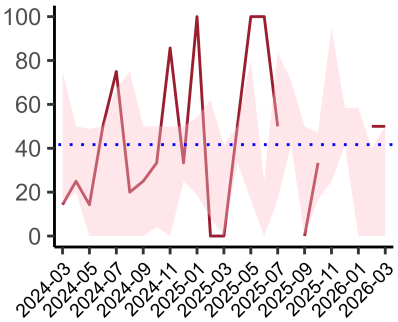


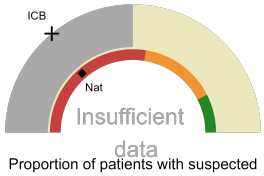


Proportion of patients with suspected sepsis and or septic shock that have antibiotic administration within the correct clinical timeframe
01 January 2026 - 31 March 2026

Sepsis/septic shock - antibiotic administration within the correct clinical timeframe

National mean 12%
ICB mean 13%
Number of patients included 6
Data completeness 100%

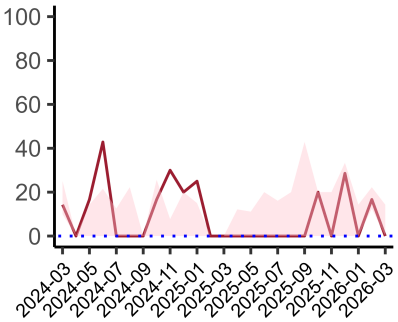


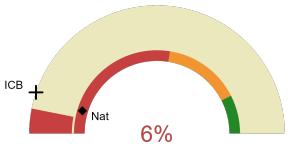


Proportion of patients with suspected infection that have antibiotic administration within the correct clinical timeframe
01 January 2026 - 31 March 2026

Infection - antibiotic administration within the correct clinical timeframe

National mean 27%
ICB mean 28%
Number of patients included 6
Data completeness 50%

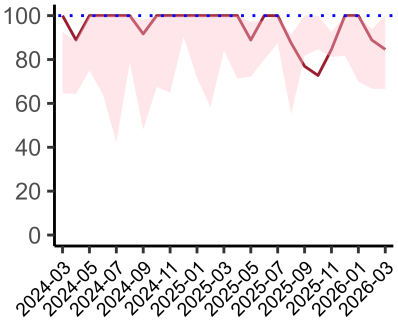


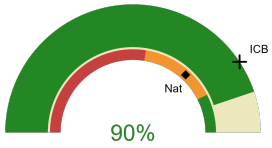


Proportion of non-elective, immediate surgery cases, arriving in theatre within 6 hours
01 January 2026 - 31 March 2026

Non-elective, immediate surgery cases, arriving in threatre within 6 hours.

National mean 9%
ICB mean 10%
Number of patients included 16
Data completeness 100%

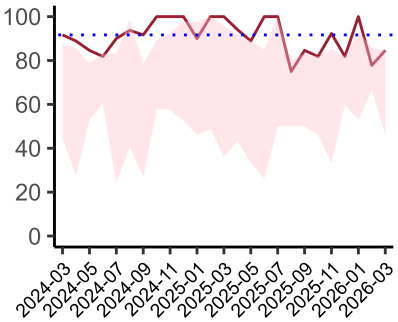


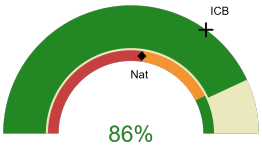


Risk of death documented before surgery
01 January 2026 - 31 March 2026

Risk documented before surgery

National mean 74%
ICB mean 81%
Number of patients included 29
Data completeness 100%

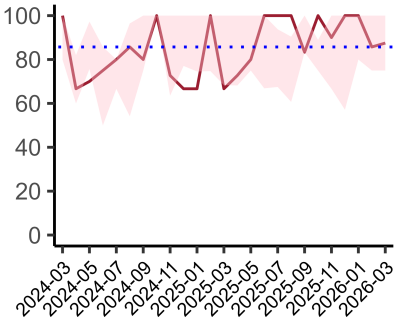


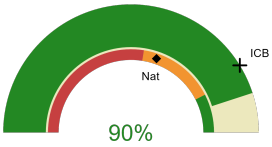


Risk of death documented after surgery
01 January 2026 - 31 March 2026

Risk documented after surgery

National mean 54%
ICB mean 70%
Number of patients included 29
Data completeness 100%

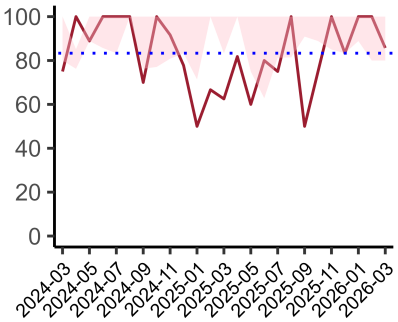


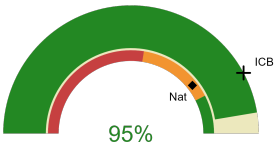


Admitted to critical care following surgery when the risk of death ≥ 5% (Excludes patients who died in theatre or with a decision to palliate)
01 January 2026 - 31 March 2026

Admitted to Critical Care (risk of death ≥ 5%)

National mean 61%
ICB mean 82%
Number of patients included 20
Data completeness 100%

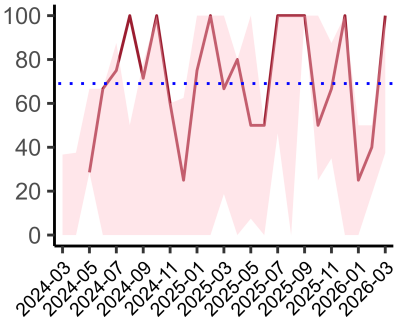


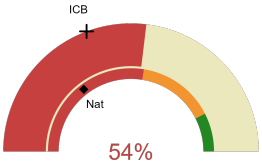


Consultant surgeon and anaesthetist present in theatre when risk of death ≥ 5%
01 January 2026 - 31 March 2026

Consultant Anaesthetist & Consultant Surgeon in theatre (risk of death ≥ 5%)

National mean 79%
ICB mean 84%
Number of patients included 19
Data completeness 95%

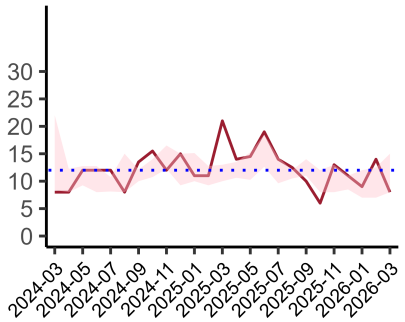


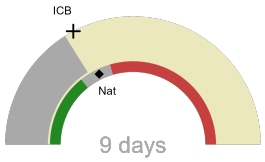


Perioperative assessment by a care of the older person specialist
01 January 2026 - 31 March 2026

Perioperative Assessment by a member of the geriatrician-led multidisciplinary team for patient aged 65 or over and frail (CFS ≥ 5) or 80+

National mean 29%
ICB mean 39%
Number of patients included 13
Data completeness 100%

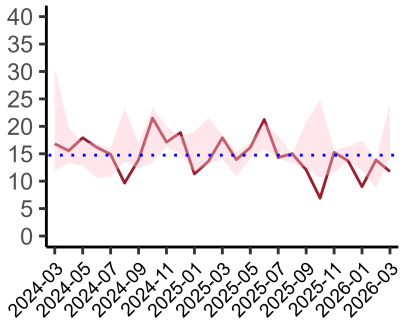


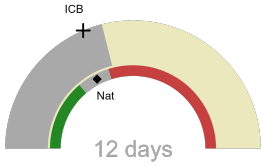


Median postoperative length of stay
in patients surviving to discharge
(crude value, not risk adjusted)
01 January 2026 - 31 March 2026

Median postoperative length of stay

National median 10 days
ICB median 10 days
Number of patients included 25
Data completeness 100%



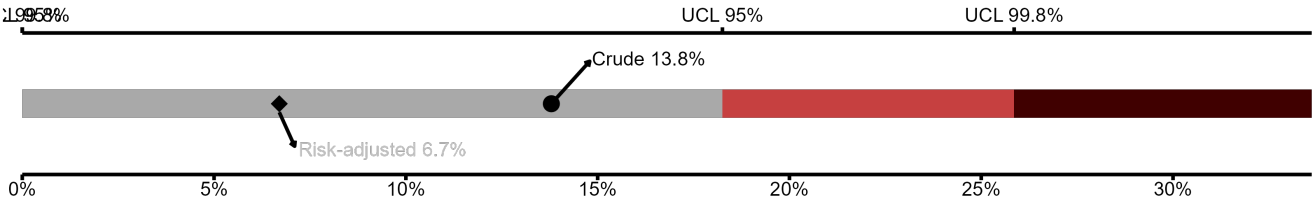


Mean postoperative length of stay
in patients surviving to discharge
(crude value, not risk adjusted)
01 January 2026 - 31 March 2026

Mean postoperative length of stay

National mean 15 days
ICB mean 16 days
Number of patients included 25
Data completeness 100%

Risk-Adjusted Mortality



Number of patients included 29 | 30-day risk-adjusted mortality rate 6.7% | National 30-day mortality rate 6.2%

Integrated Care Board

Royal Bolton Hospital is part of the NHS Greater Manchester Integrated Care Board ICB. This comprises Salford Royal Hospital, Stepping Hill Hospital, Tameside General Hospital, The Christie, The Royal Oldham Hospital, North Manchester General Hospital, Wythenshawe Hospital, Royal Albert Edward Infirmary, Manchester Royal Infirmary, Royal Bolton Hospital.