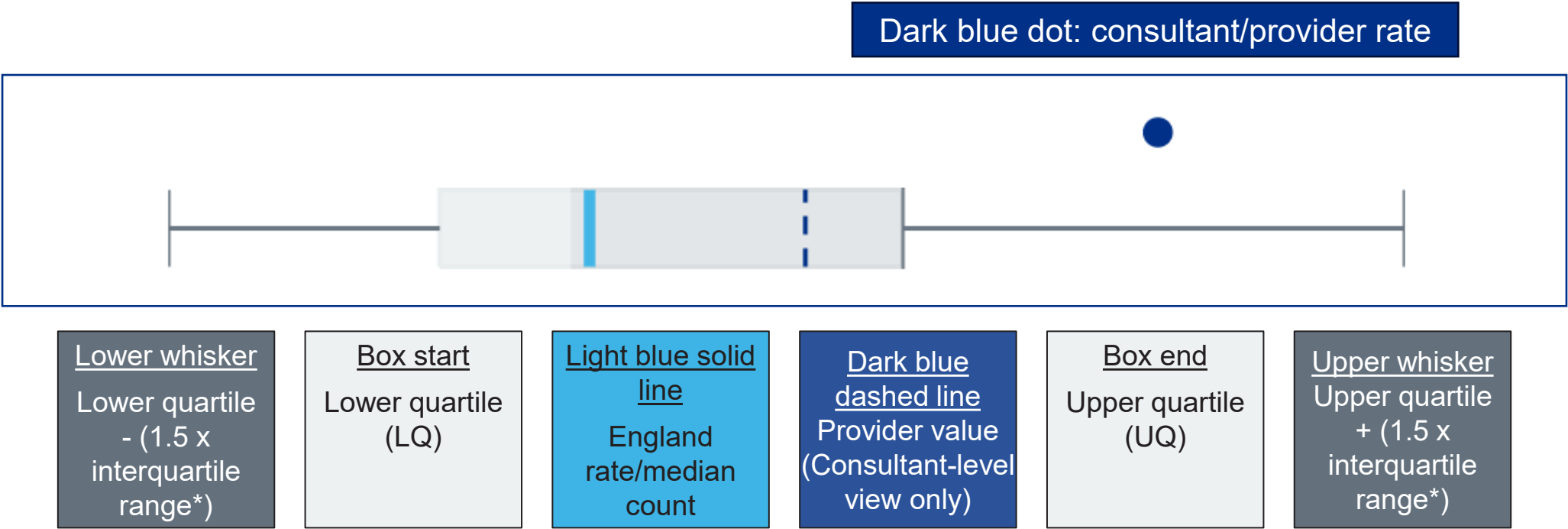


How to read data visualisations

Box and whisker plot

Box and whisker plots show the volume (count and median count) or rates across all consultants/providers nationally.
 Values shown outside of the lower and upper whisker limits are considered extremes but do not apply statistical significance testing.

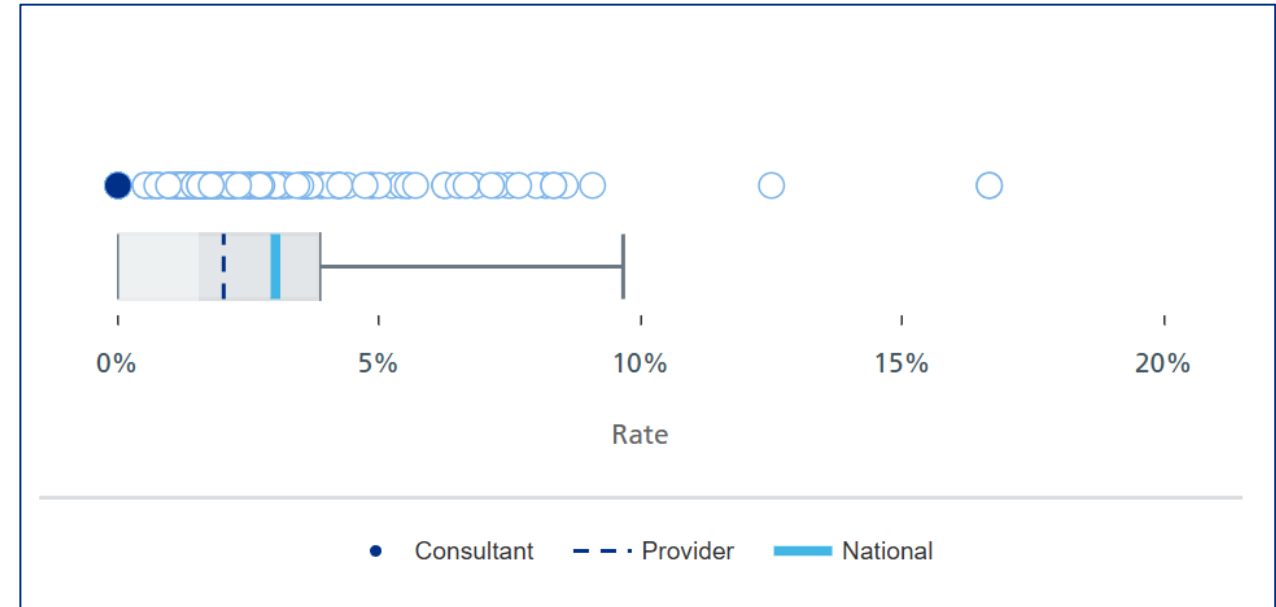


*Interquartile range: range between upper and lower quartiles

Box and whisker plot – technical explanation

Box and whisker plots show the volume (count and median count) or rates across all consultants/providers nationally.

- **Median, or 50th percentile:** the middle value of the dataset
- **Lower quartile (LQ), or 25th percentile:** the middle value between the smallest value and median
- **Upper quartile (UQ), or 75th percentile:** the middle value between the median and the largest value
- **Interquartile range (IQR):** range between upper and lower quartiles
- **Lower whisker limit:** $LQ - (1.5 \times IQR)$
- **Upper whisker limit:** $UQ + (1.5 \times IQR)$
- **Extreme values (data deviations):** anything above or below the whisker limit values



Values shown outside of the lower and upper whisker limits are considered extremes but do not apply statistical significance testing.

- Box plot outliers do not take the size of the population into consideration
- Box plot outliers can be caused by chance in small populations or short time frames

How to read data visualisations

Funnel plot

Funnel plots show the rates across all consultants/providers nationally plotted against the volume of episodes.

Grey dashed line: 99.7% (3 SD) upper control limit

Grey dotted line: 95% (2 SD) upper control limit

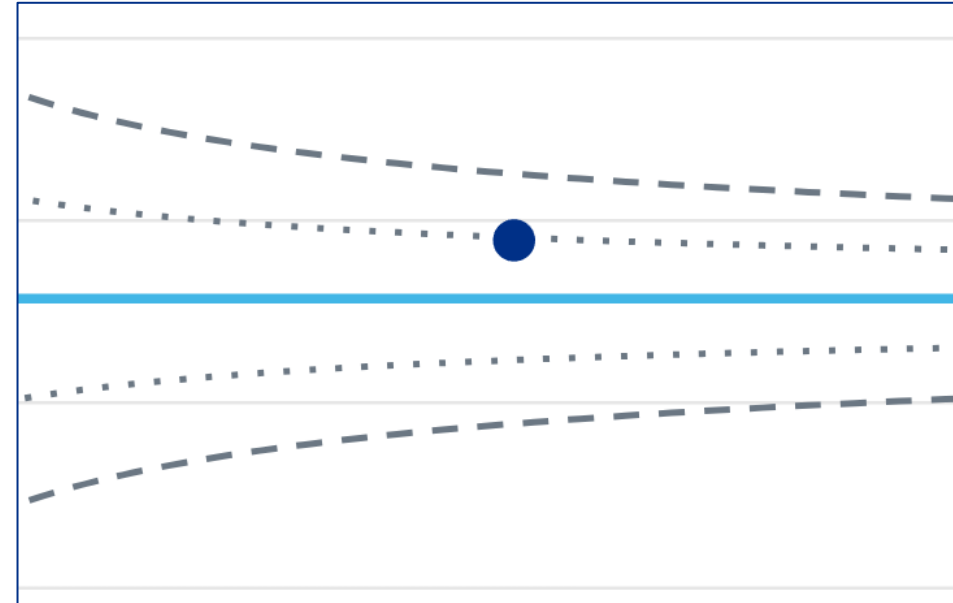
Light blue solid line: England rate

Grey dotted line: 95% (2 SD) lower control limit

Grey dashed line: 99.7% (3 SD) lower control limit

N.B. SD: standard deviation

Dark blue dot: consultant/provider rate



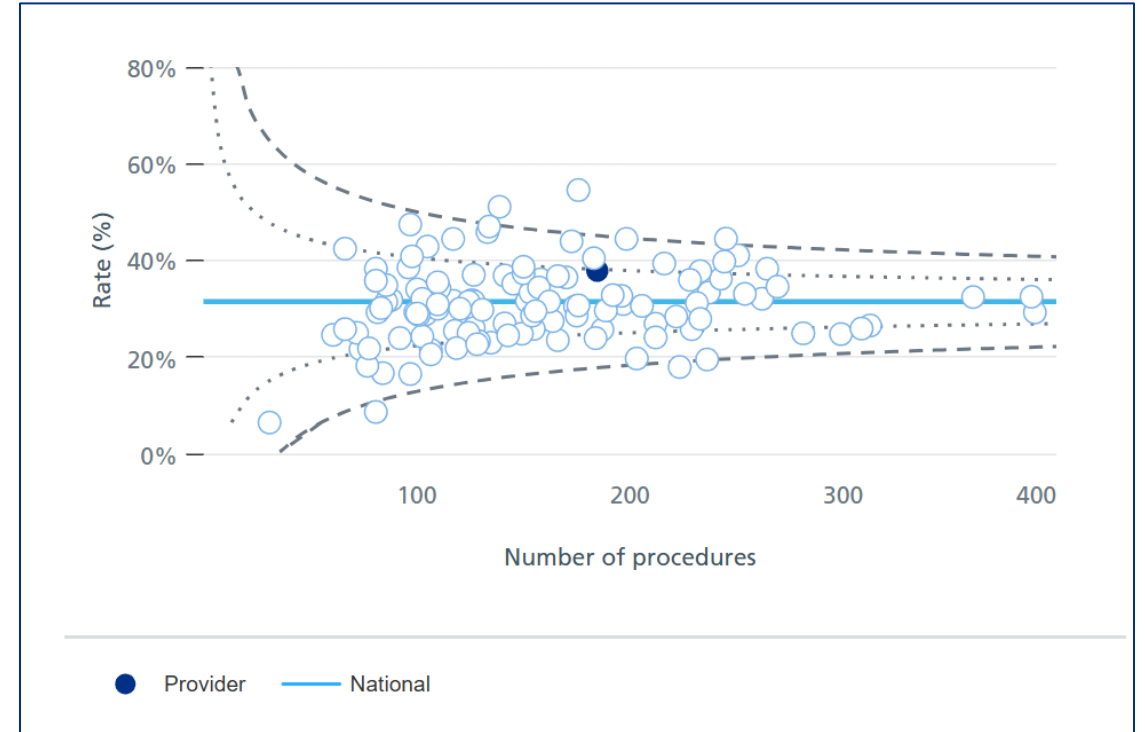
Funnel plot – technical explanation

Funnel plots show the rates across all consultants/providers nationally plotted against the volume of episodes.

- Solid line: England rate
- Dotted line: 2 standard deviations (95%)
- Dashed line: 3 standard deviations (99.7%)

Data points outside 3 standard deviations are considered a potentially statistically significant data deviation.

The interpretation of this data deviation should then follow GIRFT/NCIP's data deviation policy, such as an assessment and verification of data quality, and considerations of case mix.

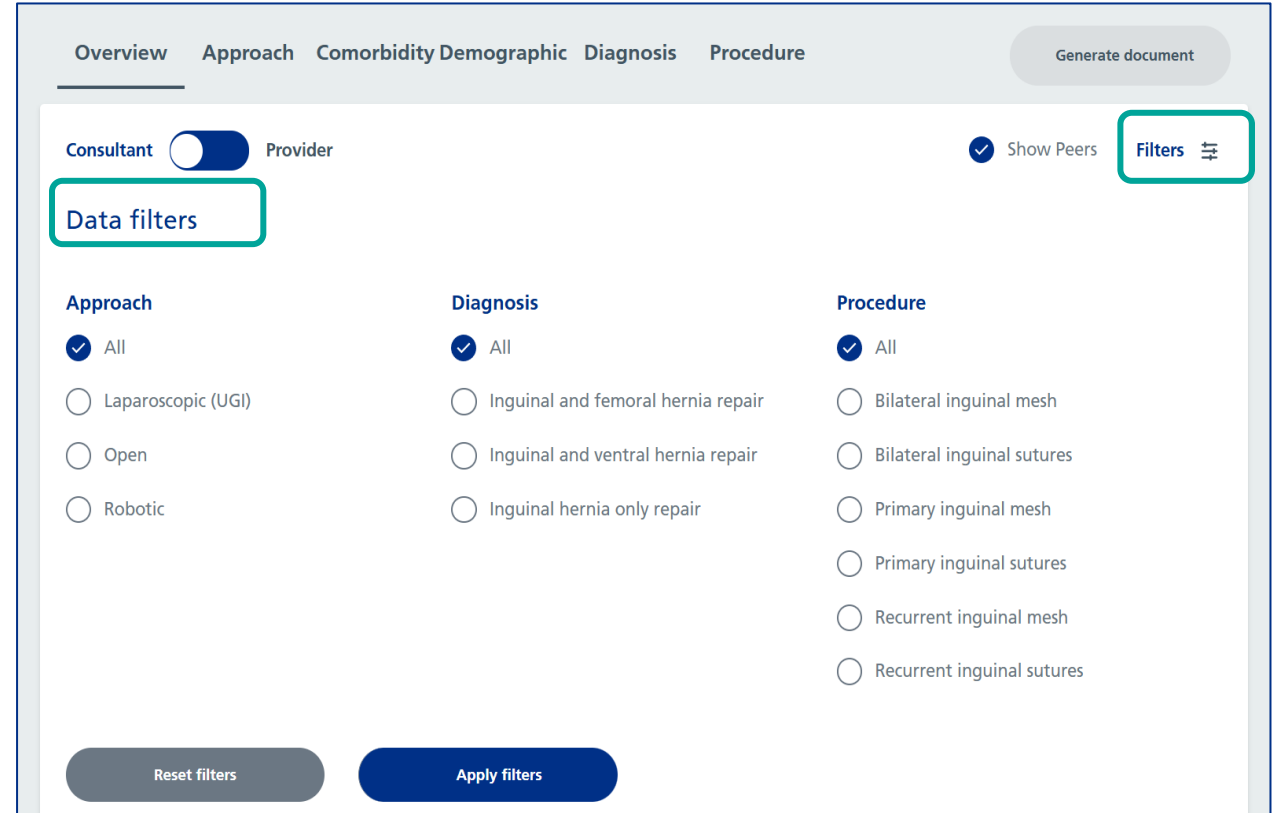


Understanding standard deviations

- Within 2 standard deviations of the mean, you should expect to find 95% of all results.
- Within 3 standard deviations of the mean, you should expect to find 99.7% of all results.

NCIP filter function

- Utilising the filter feature in NCIP allows you to drill down to further granularity of approach, procedure, diagnosis, etc.
- For example, outcomes of robotic vs open surgery approach.
- Once selected the filters will be applied across all metrics for that dashboard.
- The filter function also allows you to see pseudonymised patient records that are only applicable to the filter selections.
- Utilising the filter function can be helpful when tracking new and innovative procedures and for sharing learning across units.
- These insights can also help inform the development of actions to improve quality.

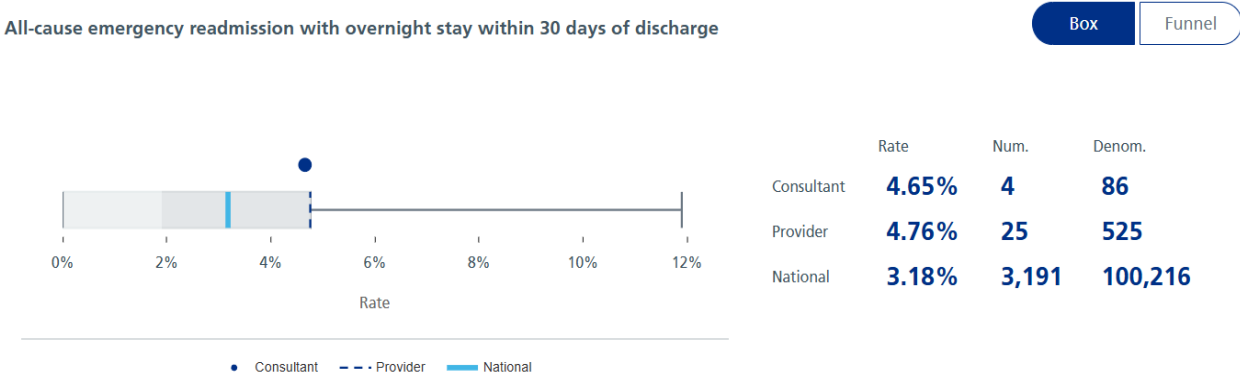


The screenshot shows the NCIP filter function interface. At the top, there are tabs for Overview, Approach, Comorbidity Demographic, Diagnosis, and Procedure. A 'Generate document' button is located in the top right corner. Below the tabs, there is a toggle switch for 'Consultant' (selected) and 'Provider'. A 'Show Peers' checkbox is also present. A 'Filters' button with a list icon is highlighted with a green box. Below this, a 'Data filters' section is highlighted with a green box. It contains three columns of filter options: Approach, Diagnosis, and Procedure. Each column has a 'Data filters' label and a list of options with radio buttons. The 'Approach' column has options: All (selected), Laparoscopic (UGI), Open, and Robotic. The 'Diagnosis' column has options: All (selected), Inguinal and femoral hernia repair, Inguinal and ventral hernia repair, and Inguinal hernia only repair. The 'Procedure' column has options: All (selected), Bilateral inguinal mesh, Bilateral inguinal sutures, Primary inguinal mesh, Primary inguinal sutures, Recurrent inguinal mesh, and Recurrent inguinal sutures. At the bottom, there are two buttons: 'Reset filters' and 'Apply filters'.

How to access patient records information

Pseudonymised patient-level information

- NCIP offers the ability to drill down to pseudonymised patient records to add more context to the headline metric.
- Under each NCIP metric there is a ‘see patient records’ button.
- By clicking on this button, you will be able to see a breakdown of pseudonymised patient level information.
- To drill down further click on the **downward arrow**. This will then bring up further information about each patient episode including diagnostic and procedure codes.
- There is enough information included for you to be able to link back to your own patient records where needed.



[See patient records](#)

< Back to procedure dashboard

All-cause emergency readmission with overnight stay within 30 days of discharge

Readmission 30 overnight (4) Denominator (86) [Generate document](#)

Patient ID	Age	Sex	Admission	Discharge	Length	Type	
PI5S1QEKAHIRPXS	83	Female	16/06/2025	24/06/2025	8 day(s)	EL	▼
70PNGTKYUU88AXG	84	Male	10/04/2025	17/04/2025	7 day(s)	EL	▼
RUM2BT2YNSDUHRY	77	Male	26/03/2025	28/03/2025	2 day(s)	EL	▼

How to access patient records information

Readmissions and mortality

- This can be particularly useful when looking at readmission metrics and mortality metrics.
- NCIP allows you to track readmissions across the NHS even when these occurred outside the organisation where the primary procedure was carried out. This can be helpful in determining if the readmission was related to the primary procedure.
- NCIP also allows you to track mortality data for some procedures by providing information on cause of death and whether the death occurred outside of the hospital such as at home or in a community setting.

Readmission 30 overnight	Admission 25/04/2025	Discharge 03/05/2025	Length 8	Type EM	Provider XXX NHS Trust
Episode 1	Start date 25/04/2025	End date 27/04/2025	Diagnosis codes		
Consultant XXXXXX			J181	Y95X	I272
			I500	I214	
			I10X	I259	E877
			J9690	I440	
			I082	E890	Y836
			D509	E785	
			E669	K219	Z955
			Z858	Z966	
	Procedure date 25/04/2025		Procedure codes		
			X522	U201	Y981

Underlying cause of death J189	Place of death Communal establishment	Sex Female	Cause(s) of death J189
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