

## Types of Data

There are two main types of data that may be collected:

- **Quantitative data** – numerical data such as Yes/No answers, age, gender, blood pressure. Analysed using simple maths.
- **Qualitative data** – descriptive data such as free-text comments, complaints, or observations. Analysed by identifying recurring themes, key words, or examples of good practice.

### Presenting Data: Charts and Graphs

Charts make results easier to understand. Choose the type that best fits the message:



**Bar Charts** – compare distinct categories (e.g. blood group, gender).



**Histograms** – show ranges of continuous data (e.g. blood pressure).



**Pie Charts** – show proportions or percentages within groups.



**Line Graphs** – compare changes over time.




**Scatter Charts** – show patterns or associations between two factors.

## Contact Us

For advice or support on any aspect of clinical audit at NHSBT, contact the Clinical Audit Team:

 [clinical.audit@nhsbt.nhs.uk](mailto:clinical.audit@nhsbt.nhs.uk)

 <https://nhsbloodandtransplant.sharepoint.com/sites/Clinical/SitePages/Clinical%20Audit.aspx>

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# How to Analyse Your Clinical Audit Data

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This leaflet looks at types of data and how best to analyse these.



## Analysing Clinical Audit Data

The goal of data analysis is to transform raw data into meaningful information—identifying patterns, trends, and anomalies that show how well your practice aligns with audit standards.

### Plan Your Analysis Early

Ideally, you should decide how you'll analyse your data before you begin collecting it. This ensures you gather the right information to meet your audit objectives.

If you've collected the right data, analysis should be straightforward.




*(See Leaflet 7 – INF456: How to Select an Audit Sample, and Leaflet 8 – INF457: How to Collect Clinical Audit Data Effectively.)*

### Keep Objectives Specific and Measurable

Example objective:

“To determine the number of donors deferred appropriately in accordance with the Donor Selection Guidelines.”

You would then:

-  Collect data on donor deferrals
-  Use a method such as peer review to assess appropriateness
-  Report the number and percentage

## Analysing Quantitative Data

Common descriptive statistics include:

- **Mean** – add all values together and divide by the number of data points.
- **Median** – the middle value when data is arranged in order.
- **Mode** – the most frequently occurring value.
- **Standard Deviation** – shows how spread out the data is around the mean.
- **Percentages and Proportions** – helpful to compare groups of different sizes.
- **Confidence Intervals** – help determine whether the sample reflects the wider population.

## Analysing Qualitative Data

Qualitative data provides rich insights into experiences and practice. To analyse:

- Look for recurring words, themes, or phrases
- Identify examples of good practice or risks
- Group responses into categories for easier comparison
- Consider whether patient or staff comments highlight underlying causes of problems

This type of data helps explain **why** things are happening, not just **what** is happening.

### Key Messages:

- Plan analysis before data collection
- Keep analysis methods clear and simple
- Use both numbers and narratives to provide a full picture
- Present results in a way that everyone can understand
- Ensure findings directly support improvement in practice