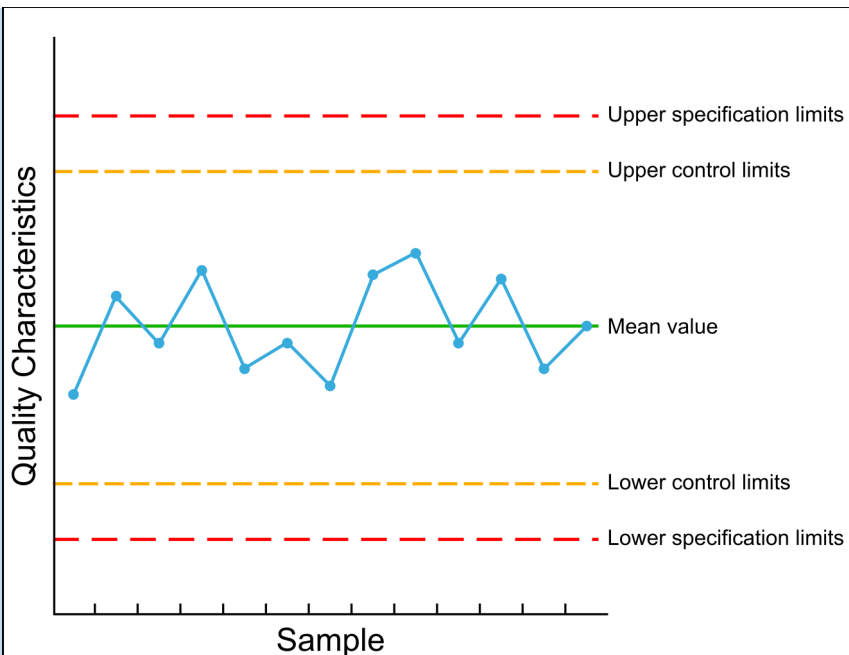


CLAHRC BITE Brokering Innovation Through Evidence

21 A bite-sized summary of a piece of research supported by NIHR CLAHRC West Midlands

Aug 2016



Chance in Quality and Safety Performance Measures

Background

- Hospital board members are asked to consider large amounts of quality and safety data with a duty to act on signals of poor performance.
- However, it can often be difficult to separate signals of poor performance from variation in performance (noise or chance).
- For some performance indicators, a very small change in performance could indicate a significant issue requiring investigation.
- Control charts can be more sensitive to these small changes than standard line charts or tables, and are widely used in industry and manufacturing to help show where issues of quality or safety may need investigation or improvement.
- Control charts could help boards filter the large range of information they receive to determine which areas of performance are a priority for improving patient care.

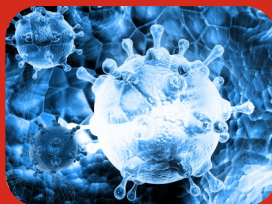
Board members need to be educated to be comfortable using control charts. Staff need to be trained to produce control charts and given simple, easy to use software to do so.

Findings:

- Board papers from 30 NHS Trusts over a one-year period were reviewed.
- The types of chart used to present data were categorised and recorded.
- Of the 589 charts considered, 285 included a reference indicator to show performance against an internally or externally set target.
- Only 72 of the 589 charts included an element of control chart methodology to help eliminate chance from the findings.
- Even in the examples where control charts were used by boards, it was often not clear how the limits for 'normal' performance had been set, which restricts how useful they are.
- It is difficult to tell whether control charts are not widely used because of a lack of demand for the information in this format from boards, or because staff lack the software tools or expertise to present information in this way.
- Further research is needed to understand how best to present individual sets of data, as well as the wide range of data contained in a board report.

Reference

Schmidtke K, Poots A, Carpio J, Vlaev I, Kandala N, Lilford R. Considering Chance in Quality and Safety Measures: An analysis of performance reports by boards in English NHS trusts. *BMJ Quality and Safety*. 2016. [<https://goo.gl/KW7QY7>]



Altmetric Score

Recommendations for Practice

Board members need to be educated to be comfortable using control charts. Staff need to be trained to produce control charts and given simple, easy to use software to do so. Further research is needed to see how decision makers can best synthesise the wide range of data available to them to assist in delivering the best patient care.

What is NIHR CLAHRC West Midlands?

The Collaborations for Leadership in Applied Health Research and Care (CLAHRC) is a partnership between universities (Birmingham, Warwick and Keele) and a number of health and social care organisations in the West Midlands. We are funded by the National Institute for Health Research with a mission to undertake high-quality applied health research focused on the needs of patients to improve health services locally and beyond.

For further information, visit:

www.clahrc-wm.nihr.ac.uk

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