



Time series plot of 12-month moving average mortality rates for England (crosses) and University Hospitals Birmingham NHS Foundation Trust (diamonds).

Trust intervention points labelled.

RCA: Root Cause Analysis

Focusing on error reduction

Background

- Patients do not always get the medications they have been prescribed. This can have adverse consequences, for example in the case of frail patients who need to maintain antibiotic concentrations to overcome severe infections.
- An audit of missed medication doses in University Hospitals Birmingham NHS Foundation Trust showed that 15% of doses were omitted.
- The data was collected using the Prescribing Information and Communication System (PICS).

Action taken

- A system of active feedback was implemented in which senior managers met nursing staff on the ward.
- The reasons for failure to administer medicine were explored. Staff were asked to propose solutions to the problems and were challenged to reduce the incidence of missed doses through the Root Cause Analysis (RCA) meetings.

Turn over to find out more

A quality improvement programme focusing on error reduction; a single centre naturalistic study

Findings

- The intervention was effective, as shown in the graph on the other side.
- There was a step change in the proportion of missed doses and hospital mortality rates fell at the same time.
- A 16.2% reduction in local mortality rate was demonstrated compared to static mortality rates throughout England.
- Although we cannot be sure this was cause and effect, we plan further controlled studies in other hospitals to further improve on practice and to see whether the effects on mortality can be replicated.

References

Rosser D, Cowley NJ, Ray D, Nightingale PG, Jones T, Moore J, Coleman JJ. Quality improvement programme, focusing on error reduction: a single center naturalistic study. **JRSM Short Rep.** 2012;3:36.
<http://shortreports.rsmjournals.com/content/3/6/36.abstract>



Recommendations for practice
“There is strong evidence that the timely administration of antibiotics is associated with reduced mortality, and so it is plausible that our reported improvements in antibiotic administration rates have impacted here.”

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