Evaluation of a national surveillance system for mortality alerts: a mixed-methods study

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Disclaimer: This report contains transcripts of interviews conducted in the course of the research and contains language that may offend some readers.

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Plain English summary

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We set out to improve our understanding of an alerting system designed to generate signals about possibly high rates of patients dying in English hospitals. Hospitals are contacted when the number of deaths is higher than expected for specific illnesses or hospital treatments. It was this system that highlighted problems at Mid Staffordshire hospital, leading to a public inquiry that found serious failures in care and had profound implications for the NHS. We wanted to investigate the impact of the alerting system in English hospitals.

Our methods used statistical analysis of numerical data, information from the health regulator, national surveys and interviews with staff to understand the responses to the alerts, the relationship of the alerts to other measures of quality and the motivations for change. We investigated all alerts but focused our investigation on heart attacks and sepsis, conditions that commonly alert.

We found that the number of annual mortality alerts had decreased since 2007. In the time period we studied, 70% of investigations by the Care Quality Commission found associations between mortality alerts and problems with quality of patient care (89% in alerts for sepsis). Mortality alerts were also related with other measures of health-care quality such as patient satisfaction, overcrowding and staffing levels. Hospital mortality fell significantly after a mortality alert, suggesting that the alerting trusts are monitoring patient mortality and often take action before they are notified. Our site visits confirmed that a number of local organisational factors influenced trusts’ responses to alerts and that case note review was commonly undertaken. Alerts were considered useful in providing a focus to address high levels of mortality.
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