

# New 'care bundle' achieves drop in death rate for emergency abdominal surgery patients

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Four UK hospitals have achieved a huge reduction in the number of patients dying following emergency abdominal surgery, after adopting a 'care bundle' devised by patient safety specialists.

The care bundle was developed at the Royal Surrey County Hospital in Guildford and implemented in the Royal United Hospital Bath, Torbay Hospital and the Royal Devon and Exeter Hospital. The results were analysed by academics at the University of Bradford

Over the study period, the overall death rate for patients undergoing emergency [abdominal surgery](#) fell from 16 per cent to 10 per cent - a 38% reduction in death rate.

The study was funded by a Health Foundation Shine Grant, along with grants from the South West Strategic Health Authority and LiDCO Group. The results are published in the *British Journal of Surgery* on 12 November 2014.

Included in the care bundle are five elements: an initial assessment with early warning scores; delivery of early antibiotics; a maximum of six hours between the decision to operate and [surgery](#); goal directed fluid therapy; and post-operative intensive care.

Mohammed A Mohammed, Professor of Healthcare Quality and Effectiveness at the University of Bradford, who co-authored the research, said: "Emergency abdominal operations are known to have a

very high risk of death, partly due to inadequate levels of care following surgery. In healthcare we often know what measures we should take to improve outcomes for patients, but implementing these and getting them right for every patient is a key challenge.

"This care bundle has been particularly successful because it doesn't require additional resources, but simply better co-ordination of the resources that the hospitals already have."

Nial Quiney, Consultant in Anaesthesia and Intensive Care Medicine at the Royal Surrey County Hospital, says: "Although we have relatively good outcomes from elective surgery, we've known for a long time that emergency surgical admissions have poor outcomes. This is due to a range of factors, including multi-organ failure and sepsis. Often these emergency cases are elderly [patients](#) with additional pre-existing conditions.

"The quality of care following emergency surgery needs to draw level with what is offered following elective surgery. Implementing this care bundle in four hospitals goes a long way towards achieving that. The results we've achieved with this project have been remarkable: around 50,000 of these operations are carried out in the UK each year. We estimate that the improvements we've made could enable hospitals to save an additional 2-3,000 lives."

The researchers are now planning to work with other hospitals in England to implement the care bundle, with the goal of seeing it adopted as a standardised model of care in hospitals across the UK.

**More information:** "Use of a pathway quality improvement care bundle to reduce mortality after emergency laparotomy" by S Huddart MBBS FRCA, C J Peden MD FRCA, M Swart MBBS FRCA, B McCormick MBBS FRCA, M Dickinson MBBS MSc FRCA, M A

Mohammed PhD, N Quiney MBBS FRCA, and the ELPQuiC Collaborator Group, is published in the *British Journal of Surgery* on 12 November 2014.

Provided by University of Bradford

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