

Sustaining better care for patients undergoing emergency laparotomy

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Summary

Emergency laparotomy is associated with high mortality. Implementation of an evidence-based care bundle has been shown to improve patient outcomes. A quality improvement project to implement a six-component care bundle was undertaken between July 2015 and May 2018. As part of this project, we worked with 27 hospitals in the Emergency Laparotomy Collaborative. Previous pilot implementation of the same bundle in our hospital between December 2012 and July 2013 had shown marked improvement, maintained until April 2014, but then deterioration. Understanding the reasons for this deterioration informed our work to re-implement the bundle and sustain improvement. A cohort of 930 consecutive patients requiring emergency laparotomy between October 2014 and April 2019 were included. Baseline data were collected between October 2014 and June 2015, and the bundle was re-implemented in July 2015. Thirty-day mortality decreased from 11% in the baseline group to 7.3% after bundle implementation. Hospital length of stay decreased from 19.5 to 17.9 days. Full bundle compliance improved from < 60% to > 80% for all patients, with improvement in application of all individual bundle components. This study provides further evidence that outcomes for high-risk surgical patients can be improved with an evidence-based care bundle, but attention must be paid to maintaining bundle compliance. Issues around sustaining improvement must be considered from project initiation.