The development of a PPOSSUM risk based landing card improved documentation of predicted preoperative risk in patients undergoing emergency laparotomy.

The first patient report of the National Emergency Laparotomy Audit (NELA) reported that the formal assessment and documentation of perioperative risk was associated with lower mortality, and improved quality of care for patients having emergency laparotomy surgery. As such, a key NELA standard of care mandates that patients undergoing emergency laparotomy should have a mortality risk calculated and documented prior to surgery. In our hospital, we failed to meet this standard in both the first and second NELA patient report.

**Methods**

We developed a novel, pre-operative landing card based on the PPOSSUM risk assessment tool. Landing cards were completed by the anaesthetist during the pre-operative visit, prior to having emergency surgery. Predicted mortality was clearly documented on the form and was used as an aid for planning perioperative care such as operative urgency and critical care admission. It included operative and physiological PPOSSUM parameters and a link to the website where predicted mortality could be calculated. The landing card was introduced as a key part of a quality improvement project aimed at improving our institution’s performance against key NELA metrics.

![Percentage preoperative risk documentation and percentage ICU admission](image)

**Results**

In the three months immediately prior to implementation, frequency of preoperative risk documentation was 38%, 70% and 71% respectively, for patients having an emergency laparotomy. In the first month after implementation of the landing card we saw a rise to 92% of all emergency laparotomies who had their risk documented before undergoing surgery. The following month this increased further to 100%. This marked improvement was correlated with an increase in the number of patients admitted to critical care to 100% for all consecutive months after introduction of the landing card.
Discussion

NELA was set up in order to feed performance data back to local sites, enabling them to use that data to drive local improvement. Our local performance data was not up to standard and the introduction of a novel landing card system allowed us to improve our performance and to meet the NELA standards of care. We observed that the pre-operative estimation, and documentation of risk resulted in improved communication between surgical, anaesthetic and ICU teams and resulted in more co-ordinated perioperative care including better use of critical care resources. The introduction of a pre-operative risk assessment landing card in our institution has been a crucial, and successful tool in improving the perioperative care of patients undergoing emergency laparotomy surgery.

Acknowledgements

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References