



Fifth Patient Report of the National Emergency Laparotomy Audit

December 2017 to November 2018

HIGHLIGHT REPORT



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Acknowledgements

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Report highlights of the fifth National Emergency Laparotomy Audit

The National Emergency Laparotomy Audit fifth report is commissioned by the Healthcare Quality Improvement Partnership, and funded by NHS England and the Welsh Government. Teams from 179 hospitals in England and Wales used a web platform to input information about each patient who is eligible for [inclusion](#) about their perioperative care between 1 December 2017 and 30 November 2018.

NELA aims to highlight specific areas of care and processes that must be invested in and improved throughout the country, to ensure every person who needs emergency laparotomy surgery consistently receives the right care, from the right people, at the right time, regardless of where they may live.

The full fifth report of the National Emergency Laparotomy Audit can be found at www.nela.org.uk/reports

Key message and findings

Over the last five years of reporting, the predominant improvements have occurred in those processes of care that are reliant on the clinical practices of clinicians themselves, such as risk assessment and consultant delivered care for patients who are high-risk. However, whilst improvements continue to happen, there remains variation in the number of patients and hospital that meet key [standards of care](#).



ALERT! The areas that have seen minimal improvement over the last five years are those relating to the way in which emergency surgical care is integrated into the wider hospital system. If further reductions in variation are to be seen, and improvements in care and patient outcomes achieved, it is these system level problem areas identified by NELA that need to be addressed through investment or redesign.

Key messages

KEY MESSAGE 1

The average mortality rate after emergency laparotomy remains static at 9.6%. Improvements in processes within the gift of the individual clinician have plateaued and it is likely that wider system and organisational change is now required to see further improvement.

KEY MESSAGE 2

Only 19% of patients with suspected sepsis received antibiotics in the first hour. This has not improved over five years, and is a key area of improvement that must be addressed urgently.

KEY MESSAGE 3

22.7% of patients did not have their preoperative mortality risk documented. NELA data demonstrates that these patients miss out on the accepted standards of care.

KEY MESSAGE 4

NELA demonstrates that an assessment of frailty is not routinely performed. Frailty is associated with a greater risk of postoperative mortality and morbidity, which is independent of the risk associated with age. For patients over 65, frailty assessment used alongside clinical risk assessment, plus specialist geriatric input for the older frail patients, is likely to improve their outcomes.

KEY MESSAGE 5

Patients assessed before their operation as having a $\geq 5\%$ risk of death should be admitted directly to critical care postoperatively to increase their chance of survival. However, 23% of such patients in NELA were instead admitted to a general ward, and this has remained static over the last three years. Institutional, cultural and organisational change is required to ensure patients consistently receive this standard of care.

An emergency laparotomy (emergency bowel surgery) is a surgical operation for patients, often with severe abdominal pain, to find the cause of the problem and treat it. General anaesthetic is used and usually an incision made to gain access to the abdomen. Emergency bowel surgery can be carried out to clear a bowel obstruction, close a bowel perforation and stop bleeding in the abdomen, or to treat complications of previous surgery. These conditions could be life-threatening. The National Emergency Laparotomy Audit was started in 2013 because studies showed this is one of the most risky types of emergency operation and lives could be saved and quality of life for survivors enhanced by measuring and improving the care delivered.

Report findings at a glance

Results from 2017–2018, the fifth year of the National Emergency Laparotomy Audit

[Principal performance statistics are available here](#)

- National **30-day mortality rate** has remained static for the last two years

9.6%  
- Improvements in care have reduced patients' average hospital stay from **19.2 days** in 2013 to **16 days** in 2018

19.2 days  
- 77% of patients** now receive a **preoperative assessment of risk** (up from 75% last year, and 56% in Year 1)

 
- 95.5% of high-risk patients** had **consultant surgeon** input before surgery

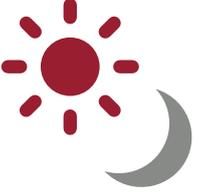
90% of high-risk patients had **consultant anaesthetist** input before surgery


- 77.5%** of high-risk patients admitted to critical care


- 88.5% of patients** received a preoperative CT scan

62% of these patients had their scan reported by a consultant radiologist


- Both **anaesthetic and surgeon consultant presence** intraoperatively is at 83%, but only **70.2% out of hours**


- Over 1/4 of patients** needing the most **urgent of surgery** did not get to the operating theatre in the recommended time frame


- 84% of patients with sepsis** reached theatres in the appropriate **timeframe**


- Time to antibiotics in patients with sepsis** remains poor with **80.6%** not receiving antibiotics **within one hour**


- 55% of patients** are over the age of 65, but **only 19% of these** had a formal assessment of their frailty

55% **over 65**

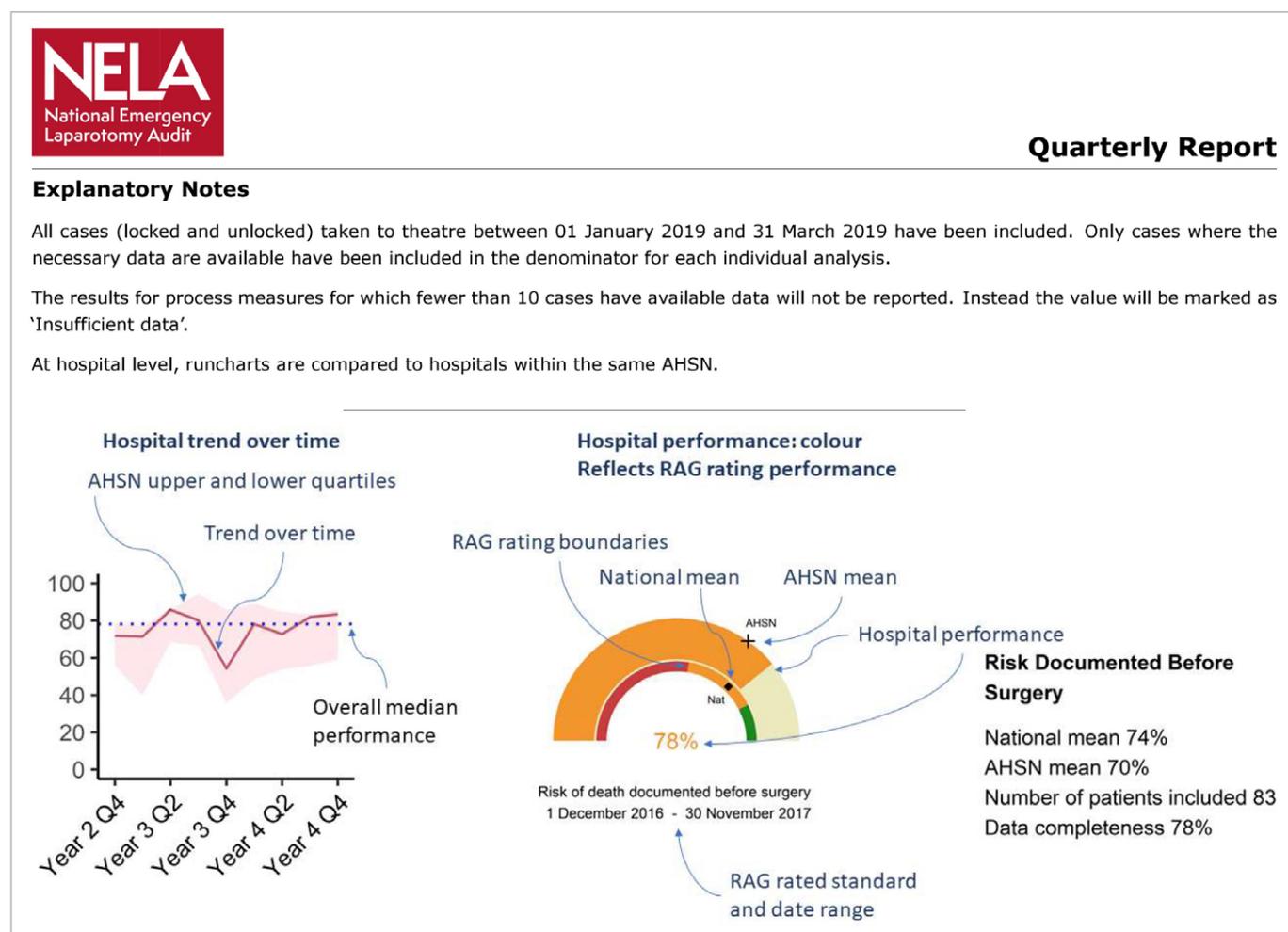

- 301 people with learning disabilities or autism** had an emergency laparotomy and their 30-day mortality was **10.3%**. They were as likely to receive consultant care and access to critical care

Engaging with teams, supporting collaborative working, improving care

Data are only useful if accurate, utilised in real time and fed back in a meaningful way to those who can influence change – both at systems and patient level. NELA provides this on the NELA webtool, and this is useful for teams not only in their local quality improvement work but also when taking part in wider collaborative work. Regional, Academic Health Science Networks breakthrough emergency laparotomy collaborative meetings are now well established and support clinicians to share best practice, develop region-wide patient pathways and improve patient care.[†]

Benchmarking report

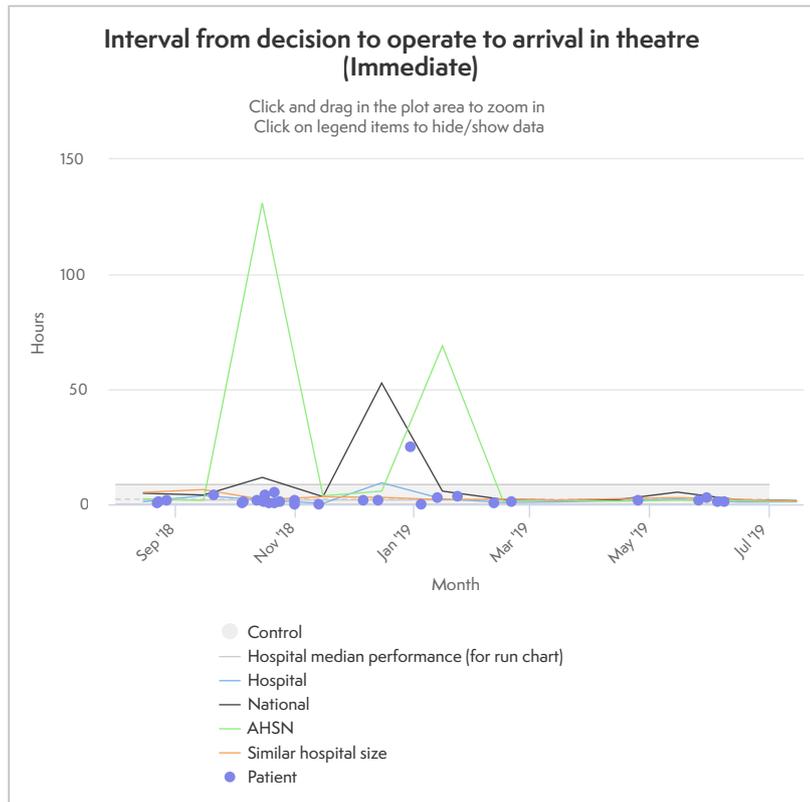
NELA provides tools to feedback data both as quarterly reports and as real time run charts on the web tool.



NELA provides quarterly benchmarking reports to every hospital about their key process measures and [standards](#). The CQC uses hospitals NELA data during inspections, and patients can access their local hospitals NELA data on the [myNHS](#) website.

[†]Aggarwal G et al. Evaluation of the Collaborative use of an Evidence-Based Care Bundle in Emergency Laparotomy. *JAMA Surg* 2019;154(5):e190145.

Quality improvement



We have updated the NELA online webtool to provide real time reporting of patient characteristics, outcome measures and process measures. They are accessible to all hospitals and include comparisons with national and regional data as well as with similar sized hospitals.

Best Practice Tariff (BPT) information[†]

Hospitals may be eligible for an enhanced [tariff](#) if they consistently provide consultant led care and critical care admission for their high-risk patients.

Other outputs that engage with the wider multidisciplinary clinical community have included articles in peer reviewed research journals, update articles in anaesthesia, surgery and nursing bulletins.

[†]England only.

The NELA recommendations; improving outcomes and reducing complications

Local clinical teams should use the data from quarterly reports, and the contemporaneous webtool, to support raising concerns or challenging apparent gaps in care pathways or delivery of care.

Commissioners of care, executive teams and senior leadership teams are responsible for providing adequate resources, financial investment and infrastructure targeted to enable the following NELA recommendations to be implemented. The findings of the [EPOCH study](#) must be noted by not only clinicians but by hospital senior management and leadership. Clinical teams report lack of time as a key barrier to implementing change. The study also reported that improvements were easier when relationships between teams were good, and so senior leaders are responsible for ensuring their clinical teams have the time and resources to make improvements.

1 Provide care within an appropriate time frame for all patients

- 1.1 Write locally agreed pathways of care that makes sure all patients receive all elements of care, in a timely fashion.
- 1.2 Give antibiotics within one hour in all patients with [suspected sepsis](#).
- 1.3 Ensure patients have their emergency laparotomy within the time frame decided by the perioperative and surgical team and are not delayed by capacity or infrastructure issues.

2 Facilitate effective team working

- 2.1 Include the wider multi-disciplinary team, such as intensivists, geriatricians, radiologists, physicians and emergency department doctors in the design and delivery of the care pathway.

3 Assess all patients' risk of death and morbidity

- 3.1 Assess the risks of surgery in a holistic way, including validated tools, assessment of frailty for patients over 65, and other factors such as nutritional status and risk of kidney injury for all patients.
- 3.2 Teach all clinicians involved in the care of patients needing emergency laparotomy surgery how to assess risk of death and frailty.
- 3.3 Communicate and document the risk assessment with both the clinical team and the patient.

4 Recognise high-risk patients and provide appropriate standards of care

- 4.1 Treat all patients as if they are high-risk ($\geq 5\%$ mortality) unless a consultant clinically assesses them to be low-risk.
- 4.2 Treat all patients over the age of 65 who do not have a formal frailty assessment as high-risk.

5 Use your local data to effect change

- 5.1 Access and present local data regularly and use it to inform improvements in care pathways.
- 5.2 Enable clinical and non-clinical teams to attend local collaborative events.
- 5.3 Ensure clinical and non-clinical staff have dedicated job planned time to gather and act upon NELA data, design and implement improvements to patient care, and to attend regional events.
- 5.4 Use performance against the NELA key standards of care (in the [exception/excellence toolkit](#)) as part of the structured review of deaths in patients who have undergone an emergency laparotomy.

What next for NELA?



Patient support groups and networks



Collaborative working and improvement networks



Further research projects using NELA data



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