Emergency Medicine National Emergency Laparotomy Audit (NELA) Leads

Acute abdominal pain is a common presentation to an Emergency Department. Sorting patients into those who need urgent surgery, admission, or discharge, is a what we in emergency medicine, train to do. The National Reporting and Learning System (NRLS) data suggests that we do not always get this right, and the result of this is delayed management and potentially avoidable deaths. As a speciality we have worked to improve the care delivered to high-risk patient groups who require time critical management e.g. AMI, stroke, and AAA patients. It is now time to add patients who need emergency laparotomy surgery to this list.

30-day mortality has decreased, however the trend in improving mortality is plateauing.

Patients requiring an emergency laparotomy have a 30-day mortality of 9.3% (data from 24,823 patients in England & Wales, Dec 2018-Nov 2019). [1] The National Emergency Laparotomy Audit (NELA) is the world's largest database of prospectively identified patients undergoing emergency laparotomy, and contains data collected by local clinical teams on over 150,000 patients. Since NELA started in 2013, the 30-day mortality rate has fallen from 11.8% to 9.3%. This has been achieved by clinicians improving their recognition and documentation of high-risk patients, a crucial step in then ensuring that high risk patients receive the recommended standards of care.

Early recognition and treatment of patients requiring an emergency laparotomy, in the ED, could be the key to decreasing mortality.

Time to first antibiotics and time to theatre for the most unwell/most urgent case, consistently fail to reach recognised standards. Emergency laparotomy patients who have sepsis prior to theatre have a 12.5% 30-day mortality, yet only 20.3% of these patients are receiving antibiotics within an hour.[1] These are areas that timely ED assessment and treatment, supported by appropriate preoperative CT imaging, could address.

Patients who undergo an emergency laparotomy who are first admitted under a non-surgical specialty (such as general medicine or gastroenterology) have poorer outcomes including a longer length of stay and a higher mortality. NELA cannot describe the precise reasons why this is. It is possible that they may have been admitted with other pathologies traditionally managed non-surgically which then progress and require surgical intervention. However, it may also be the case that we have failed to recognise a patient's surgical abdomen. The most common admission speciality for these patients is elderly care. The 30-day mortality in this subgroup is 25%. We know that this is a group of patients where there are more non-classical presentations, and there can cause more diagnostic uncertainty, RCEM already recommends senior sign-off for patients ≥ 70 years with abdominal pain.[2] Without local interrogation of your own data, it is impossible to make know how to improve this.

Emergency Medicine NELA lead

The improvement work supporting the patient's perioperative journey, would have been impossible without the appointments of a surgical and anaesthetic NELA lead in each trust. The Royal College of Radiologists have called for each trust to have a radiology NELA lead. **The Royal College of Emergency Medicine and NELA believes that there should be an Emergency Medicine NELA lead in each trust**. By having a strong multi-disciplinary team we can drive improvements in the care delivered to these patients across their journey through the hospital.

RCEM recommends that SPA time should be allocated for this role; this should be locally negotiated. It is expected that this will cover time to attend NELA MDT meetings within the Trust and region, and related quality improvement activity. NELA suggests in the region of 0.5 PA with 2 associated professional leave days.[3]

1. NELA Project Team. Sixth Patient Report of the National Emergency Laparotomy Audit RCoA London 2020 https://www.nela.org.uk/reports
2. QUALITY IN EMERGENCY CARE COMMITTEE STANDARD Consultant Sign-Off (June 2016) https://www.rcem.ac.uk/docs/Consultants%20Sign%20off/Consultant%20Sign%20Off_June%202016.pdf
3. NELA Local Clinical Lead – Job Description, https://www.nela.org.uk/NELA-Publication-Tools#pt