



## NO-LAP - A New Expansion within NELA

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Each year, around 22,000 patients in England and Wales undergo emergency open abdominal surgeries after being admitted to hospital with acute surgical pathologies [1]. They carry the highest risk of death of all surgeries performed in hospital. In response to this issue, the National Emergency Laparotomy Audit (NELA) was introduced in 2013 to improve clinical outcomes on a national level. NELA established specific metrics to enhance the quality of care across all stages of patient care. Key targets include mandatory care delivered by consultants for the sickest patients, formal risk assessments before surgery, and peri-operative evaluations of elderly patients by specialists in geriatric medicine [1,2].

The introduction of NELA has been associated with a reduction in national emergency laparotomy mortality from 11% to 9.2% within 8 years [1]. Dissemination of the systematic approach promoted by NELA encourages consistent best practice across the healthcare system. Additionally, NELA has facilitated the creation of a comprehensive national database that characterises the patient population undergoing emergency surgery. This database supports the development of quality improvement projects and research at both local and national levels.

The ongoing success of NELA has led to its continuous evolution and expansion, allowing for the identification of new patient subpopulations and treatment targets. One of the most significant recent developments of NELA is the inclusion of a previously under-represented group: patients who, despite presenting with acute abdominal conditions that meet NELA criteria, do not undergo emergency surgery. This group is referred to as the NO-LAP cohort.

The decision not to operate on these patients, despite the severity of their conditions, presents a complex challenge in clinical decision-making. They may be deemed too frail to survive surgery to discharge or decline surgical intervention offered.

Limited research has been conducted on this population, but the few existing studies have reported exceptionally high mortality rates within the NO-LAP cohort. For instance, studies have reported 30-day post-admission mortality rates ranging from 63% to 95% [3,4]. Perhaps it is more surprising, given their indications for laparotomy, that so many seem to survive despite bypassing surgical intervention. These studies suggest that factors such as advanced age, pre-existing comorbidities, and frailty play a significant role in the decision to forgo surgery. However, there remains a substantial gap in detailed data and evidence regarding the characteristics of these patients and the variations in outcomes across different surgical centres. This gap underscores the urgent need to better characterise the NO-LAP cohort and their management, which is a primary reason for their inclusion in the latest version of NELA. Incorporating the NO-LAP cohort into NELA will help refine our risk-benefit analysis to the advantage of acute surgical patients. These findings could drive new quality improvement initiatives and inform

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future research aimed at optimising care strategies for this highly vulnerable cohort.

The inclusion of the NO-LAP cohort within NELA is a crucial and timely development. It represents an important expansion of an already successful project, reflecting the audit's adaptability and its commitment to addressing emerging challenges in healthcare. This development is especially relevant given the ageing demographic of the UK population. As people live longer and face a greater burden of chronic diseases and frailty, the number of patients falling into the high-mortality NO-LAP group is expected to increase in the coming years.

Creation of the NO-LAP cohort underscores the importance of proactive, data-driven approaches to healthcare improvement. By identifying and addressing emerging gaps in care now, NELA continues to play a vital role in enhancing patient outcomes and setting the standard for emergency abdominal surgery in England and Wales.

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### Contribution

The authors state equal contribution in the elaboration of this manuscript

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