# ELLSA@QEUH:
# Improving Patient Outcomes After Emergency Abdominal Surgery

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## Why are we doing this?

Emergency abdominal surgery is a **High Risk** procedure, associated with significant morbidity, mortality, wide variation in care and prolonged duration of hospital admission[1].

Emergency abdominal surgery was identified as a priority audit area by the Healthcare Quality Improvement Partnership (HQIP) in 2011, commissioning the National Emergency Laparotomy Audit (NELA) in England & Wales in 2011. Consecutive annual NELA reports show improvement nationally across a variety of key performance indicators[2].

The Emergency Laparoscopic and Laparotomy Scottish Audit (ELLSA) emulates NELA and is part of the Whole System Patient Flow Improvement Programme, Scottish Government. ELLSA aims to reduce variability in care, improve patient outcomes and identify good practice within Scotland in this patient group.

The Queen Elizabeth University Hospital (QEUH) is a 1109 bed acute hospital in South Glasgow. As the largest acute hospital in Scotland, we were keen to engage with ELLSA early, and have collected data from the programme onset.

## What did we want to do?

- Establish a baseline dataset for QEUH for Year 1
- Improve identification of **High Risk** patients (fig. 1)
- Create a local multi-disciplinary team (fig. 2)
- Consider programmes to reduce morbidity, mortality and length of stay

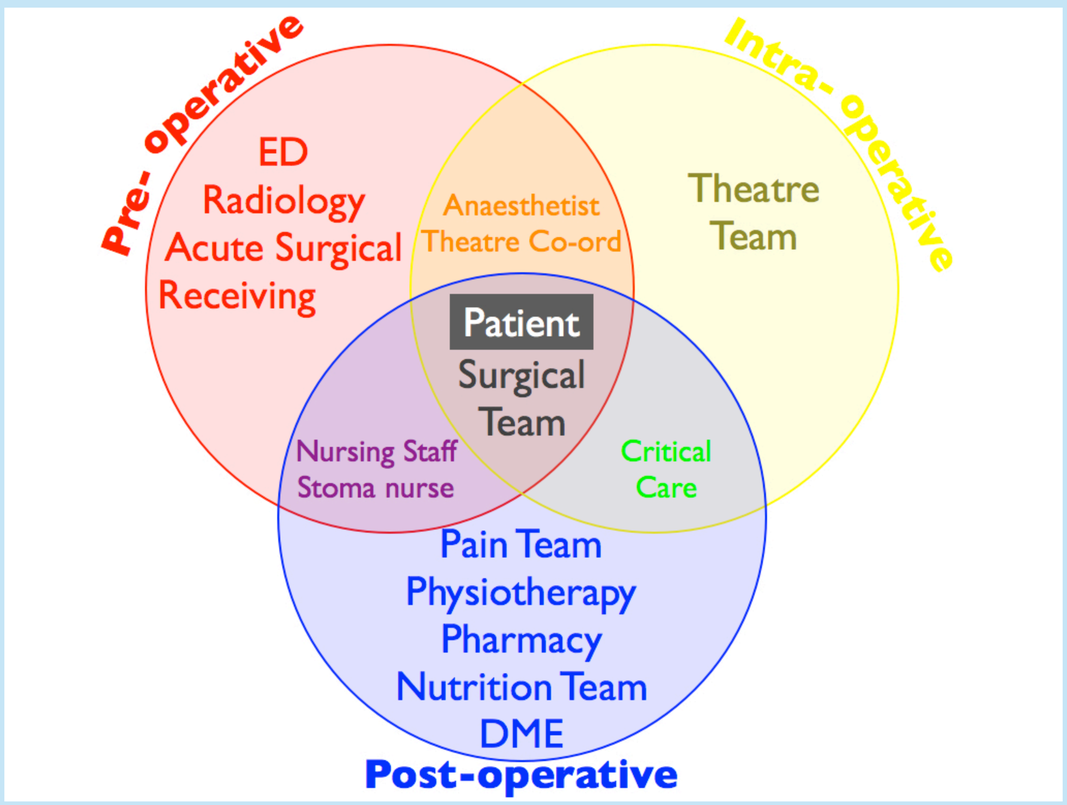


Fig 2. QEUH ELLSA multi-disciplinary team

## How are we doing it?

Data collection started at QEUH, and nationally, on November 1st 2017, and is ongoing. The programme received financial support from the Whole System Patient Flow Improvement Programme, Scottish Government, and this has funded an ELLSA nurse at the QEUH for 1 year.

Data is collected on every patient undergoing emergency abdominal surgery, creating a timeline from admission to discharge and including over 50 data points (fig.3). This is collected in real time as much as possible, however electronic case records allow ease of access for missing information.

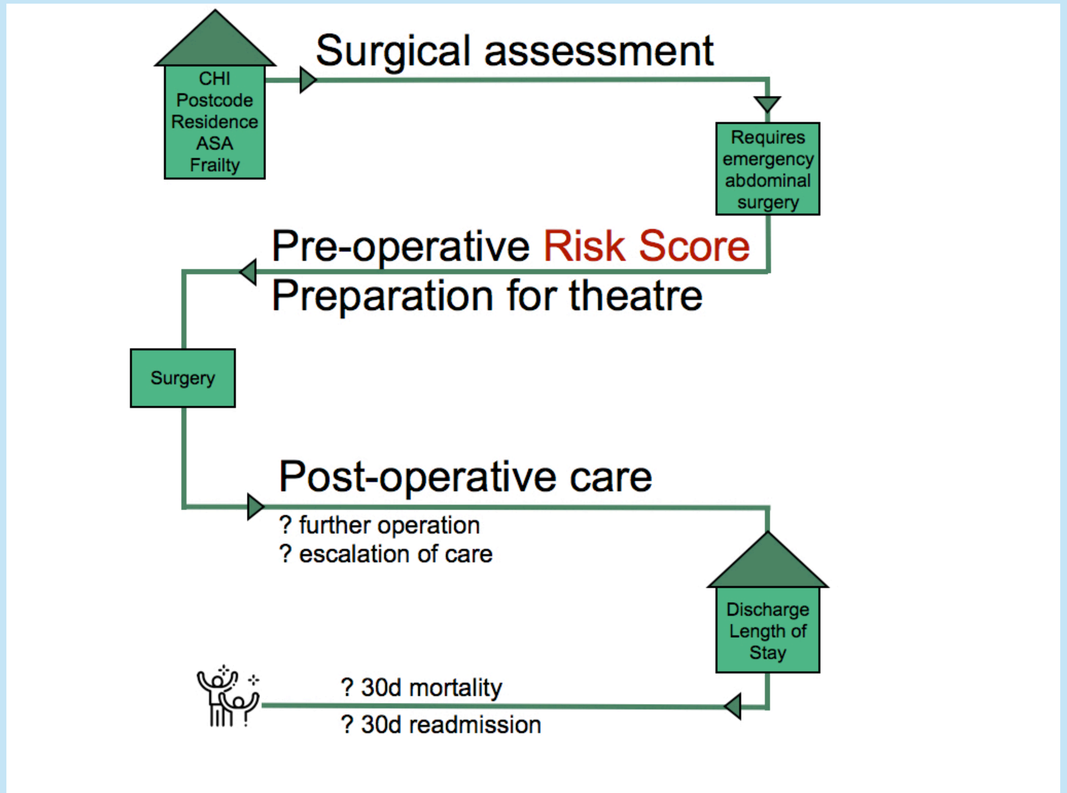


Fig 3. ELLSA patient journey

**High Risk Patients**

**Pre-operative risk assessment performed by surgical and anaesthetic team using NELA Risk Calculator[3] to give predicted risk of 30 day mortality.**

Risk of death in 30 days ≥5% = High Risk

- ➡ **Communicate to team**
- ➡ **Consultant level care intra-operatively- surgery + anaesthetics**
- ➡ **Admit to critical care post-operatively**

Fig 1. **High Risk** patient strategy

## What have we found?

Our baseline results for Year 1 are shown below (fig.4). 43% of our patients are **High Risk**. Through a focussed quality improvement process, we are improving our rate of pre-operative risk recording (fig.5). Improving mobilisation post-operatively is also priority, working in conjunction with physiotherapy over recent months, we have seen a marked improvement on day 1 mobilisation (fig. 6)

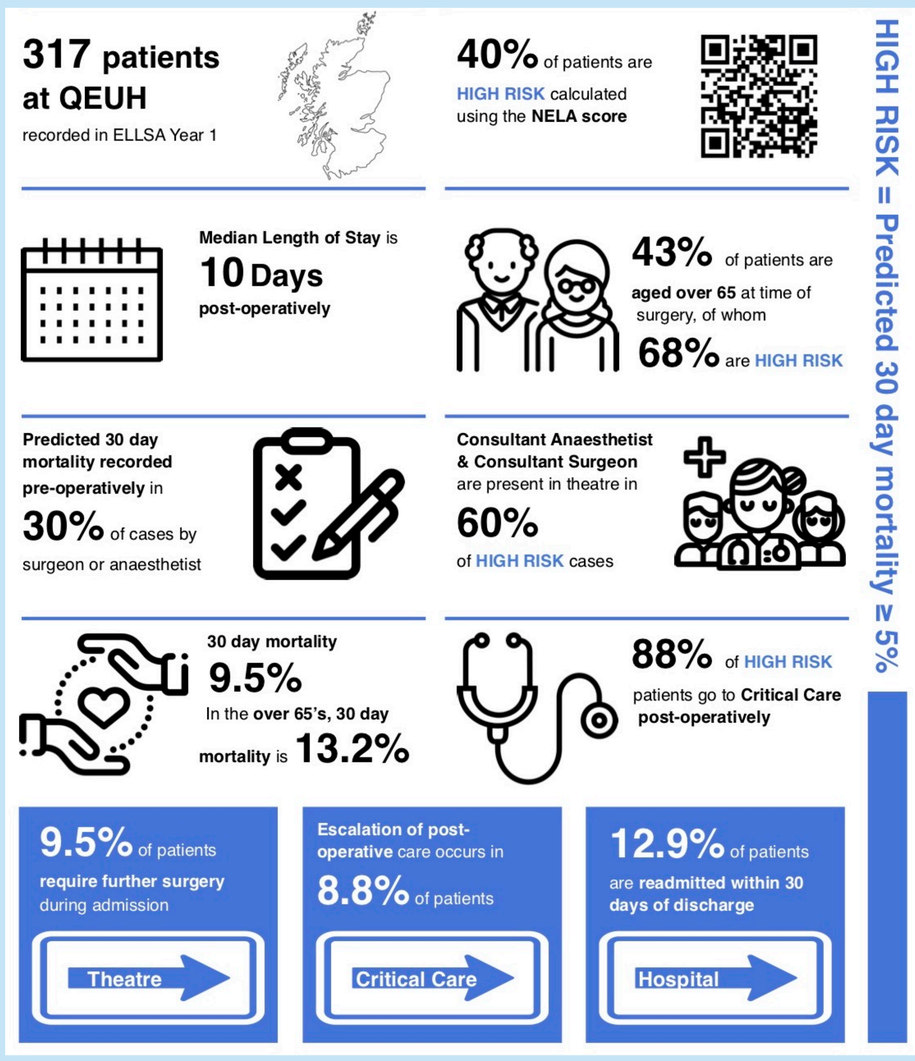


Fig 4. QEUH ELLSA Year 1 results

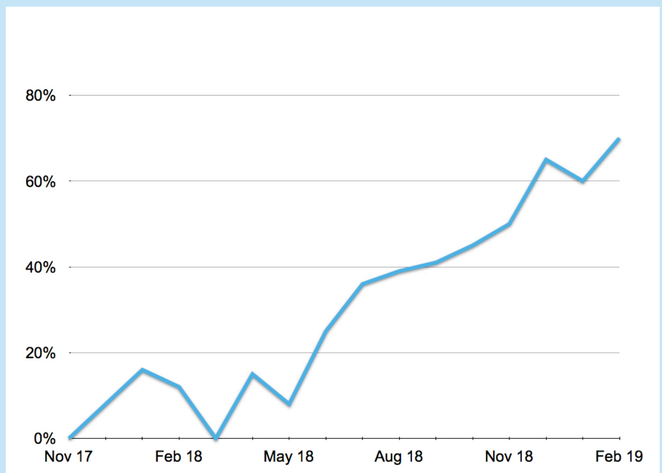


Fig 5. Percentage of cases with pre-operative risk assessment recorded

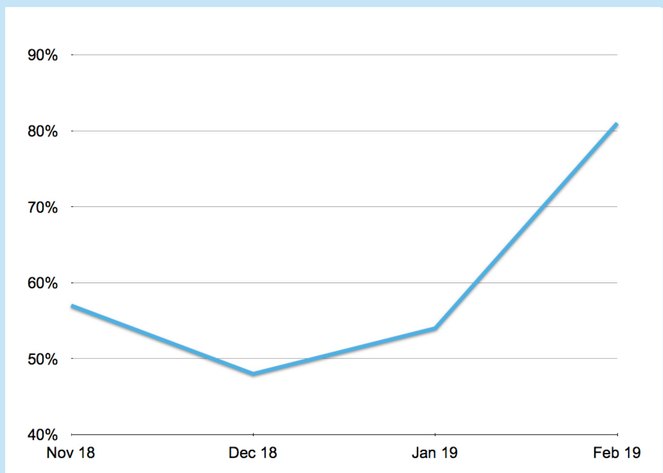


Fig 6. Percentage of cases mobilised on day 1 post-operatively

## What difference has this made?

Our baseline dataset allows us to compare with national outcomes, and identify and prioritise areas for targetted quality improvement projects at the QEUH. The improvement in recognition of **High Risk** patients allows delivery of optimal care for this patient group from the multi-disciplinary team to improve their outcomes. After careful consideration of our findings in year 1, we are developing programmes that we anticipate will have a positive impact on morbidity, length of stay and mortality. Our immediate focus areas are surgical urgency classification and it's correlation with time to theatre, and recognition of frailty on admission.

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**References**
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