

Shortlisted



Improving outcomes following emergency laparotomy: Assessing the impact of quality improvement measures based on NELA recommendations

NELA Trainee Poster Category
Poster Number 161

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Introduction

Over 30,000 emergency laparotomies are performed annually in England and Wales, with large variations in morbidity and mortality reported 1. The National Emergency Laparotomy Audit (NELA) aims to improve outcomes in these patients via optimisation of peri-operative care 2. Our institution recently introduced quality improvement measures based on NELA recommendations, which have led to improvements in patient care and outcomes

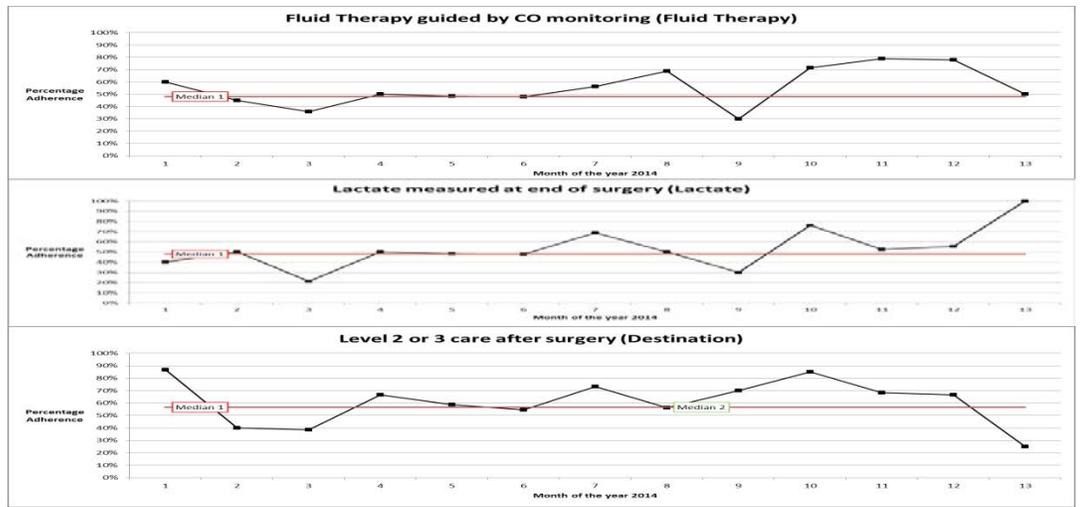
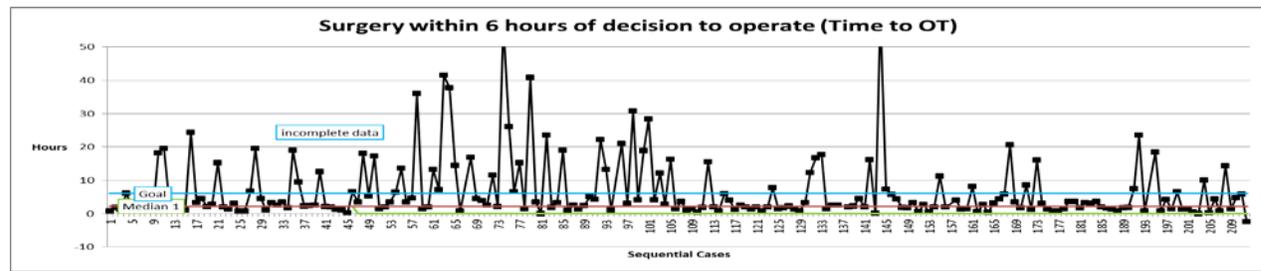
Methods

In July 2014, 4 quality improvement measures were introduced: Reduced time to theatre, increased cardiac output monitoring use, post-operative lactate measurement and increased post-operative critical care admission in high risk patients. Data for 212 patients was retrospectively analysed, 117 patients pre, and 95 post the introduction of these measures, to look for evidence of improvement in care and outcomes.

Results

Mean time to theatre was reduced from 541 to 293 minutes, with a median time reduction from 234 to 135 minutes (2 tailed t test, p=0.003). 41 out of 117 patients (35%) waited over 6 hours to go to theatre in the pre implementation group, compared with 19 out of 95 (20%) in the post implementation group (Fisher's exact test p=0.0101). Increased rates of intra-operative cardiac output monitoring and post operative ICU admission rates were also seen. The overall 30 day mortality rate fell from 16.3% to 15.3%

Figure 1: Trends in peri-operative care pre and post introduction of quality improvement measures



Discussion

The introduction of quality improvement measures based on NELA recommendations has led to significant improvements in peri-operative care in patients undergoing emergency laparotomy in our hospital. Key to this success has been a collaborative approach between all specialties involved in delivering this care.

References

1. Saunders DI, Murray D, Pichel AC, Varley S, Peden CJ, Network UKEL. Variations in mortality after emergency laparotomy: the first report of the UK Emergency Laparotomy Network. *British Journal of Anaesthesia*. Sep 2012;109(3):368-375.
2. NELA project team. First organisational report of the National Emergency Laparotomy Audit *NELA*, London 2014. www.nela.org.uk/reports