SERVICE REVIEW OF PERI-OPERATIVE CARE IN AN AGEING POPULATION

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INTRODUCTION

- High mortality (15%) following emergency laparotomy has been reported nationally[1,2] with wide variations between hospitals in the UK[3].
- The National Emergency Laparotomy Audit (NELA) began collecting data in December 2013, and publishes reports annually.
- Kingston Hospital has been specifically mentioned in the national audit report for its improvements since 2013.
- Kingston Hospital serves an older demographic compared to the UK national population. We have used the NELA data to evaluate whether our peri-operative service is targeting the needs of this older population.

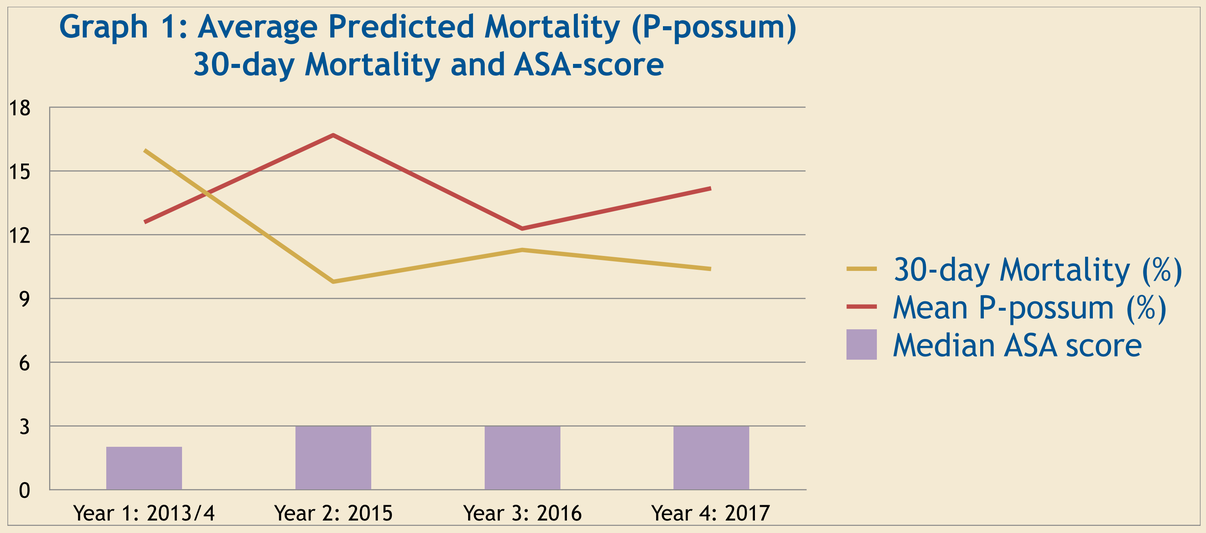
METHODS

- Data was collected prospectively from December 2013;
  - Year 1: 142 patients
  - Year 2: 112 patients
  - Year 3: 97 patients
  - Year 4: 67 patients (so far)
- A multidisciplinary team of consultant surgeons, anaesthetists, intensivists and radiologists agreed on a set of key interventions; including that every patient over the age of 65 years should have input from a care of the older person specialist (COPS).
- All surgical patients are discussed in a twice weekly MDT. Patients > 65 are screened for indicators of frailty and are included for review with patients >70 who have undergone emergency laparotomy.

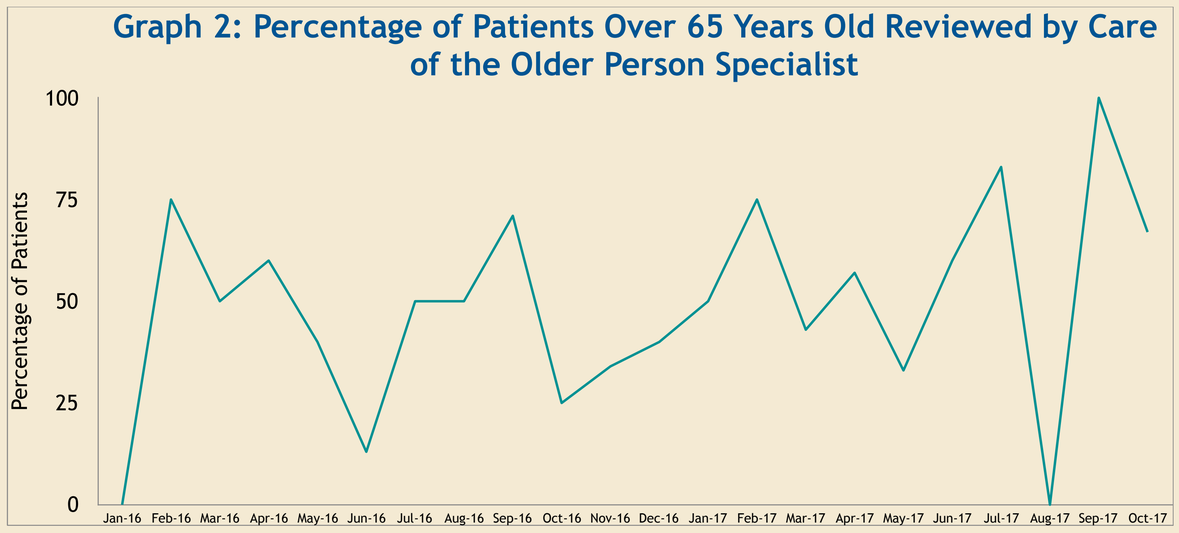
RESULTS

- 418 patients have been analysed since NELA began in 2013.
- The mean age of patient undergoing an emergency laparotomy at our hospital is 67.
- Post-laparotomy mortality since the audit began has decreased from 16% to 10% despite a higher median American Society of Anaesthesiologists (ASA) score (year 1, median ASA = 2; years 2,3 & 4, median ASA = 3), and a higher predicted mortality score (year 1, mean p-possum = 12%, year 4, mean p-possum = 14%) [Graph 1].
- Since February 2016, we have had a proactive peri-operative service led by a dedicated COPS to review our older patients. Our data shows dramatic variability in the percentage of monthly older patient reviews - the low monthly rates corresponding with COPS leave from clinical duties [Graph 2].

Graph 1: Average Predicted Mortality (P-possum) 30-day Mortality and ASA-score



Graph 2: Percentage of Patients Over 65 Years Old Reviewed by Care of the Older Person Specialist



CONCLUSIONS

- Since the start of NELA in 2013, Kingston Hospital has reduced mortality, despite a trend towards a sicker patient group, with higher ASA, and P-possum scores.
- This has been achieved through regular MDT meetings with surgeons, anaesthetists, intensivists, radiologists and COPS who examined local NELA data together against the national standards.
- The national gold standard is that patients aged >70 undergoing emergency abdominal surgery should have regular proactive input from a COPS. Our local target is any patient >65yrs, however the data demonstrates this is not sustainable with one consultant.
- Other areas of change in practice include documenting pre-operative risk assessment, anaesthetic and surgical consultant supervision (in pre-assessment and theatre), timely radiological input and arrival in theatre, and elective critical care admission.
- Focusing on these key areas has brought about a reduction in mortality and length of stay (LOS) in hospital across all age groups, for which Kingston Hospital has been specifically praised in two consecutive NELA reports.

DISCUSSION

- The clinical pathway for patients undergoing emergency abdominal surgery is complex, and requires input from clinicians from several specialties.
- Elderly patients have complex needs that are managed best by COPS.
- At Kingston we serve an ageing population, and we believe that by providing targeted COPS input, as well as streamlining our other emergency laparotomy services, our outcomes are improving.
- We have used our data to gain funding for another COPS, and expect to demonstrate a more consistent service in the future, with a further impact on morbidity, mortality and hospital LOS.

REFERENCES & ACKNOWLEDGEMENTS

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