FIRST UK AUDIT SHOWS MORTALITY RATE FROM EMERGENCY LAPAROTOMY SURGERY VARIES 12-FOLD ACROSS UK HOSPITALS

A session at this week’s Annual Congress of the Association of Anaesthetists of Great Britain and Ireland (AAGBI) will discuss data from the UK’s first national audit into emergency laparotomy surgery. The data show a startling 12-fold variation in the mortality rate from emergency laparotomy surgery between the best and the worst hospitals across the UK.

“These data are shocking and may reflect the wide variation in provision of care across UK hospitals in terms of provision of essential facilities and the presence of consultant anaesthetists and surgeons that should be present to conduct these operations,” says Professor Mike Grocott, University of Southampton, UK, who is co-leading a new National Audit project with Dr Dave Murray, James Cook University Hospital, Middlesbrough, UK. Professor Grocott will present the data at the AAGBI meeting.

Emergency laparotomy surgery takes place when there is known or suspected bleeding or other difficulties in the abdomen, including infections and bowel perforations. Approximately 30-35,000 such operations take place across the UK each year. The majority of cases (some 90%) occur in those over 65 years old, but a substantial number of younger patients also undergo the procedure. Fluid in the abdomen due to a bowel tear caused by colon cancer is an example of a situation in which this surgery can be performed. Other causes for this type of surgery include perforated duodenal ulcers and peritonitis.

The data, covering 1853 patients, has been produced by the Emergency Laparotomy Network Volunteer Group led by Dr Murray, consisting of 35 hospitals from across England, Scotland and Wales. The audit was initiated because of concerns from anaesthetists and surgeons themselves that there was little data available to help hospitals guide and improve performance.

Dr Murray’s team found that operation mortality rates varied from 3.6% for the best performing hospital to 41.7% for the worst. As part of the agreement for taking part in this initial audit, individual hospitals were kept anonymous.

Dr William Harrop-Griffiths, President of the AAGBI said: “The AAGBI is proud to have supported the Emergency Laparotomy Network in performing this ground-breaking work. We put patient safety first and are active in supporting research that aims to improve clinical outcomes. We will continue our close involvement as this network develops into a large-scale, national audit. The results will make a big difference to the safe care of patients undergoing emergency laparotomy. This preliminary information, from a selected sample of acute NHS hospitals, is fascinating, and provides some pointers towards factors that may be amenable
to change in order to improve the overall quality of care for patients undergoing this procedure.”

Best practice (A working group of the UK Royal College of Surgeons and Department of Health, England) states that high risk emergency laparotomy patients should have their surgery performed with a consultant anaesthetist and surgeon both present, and that patients should be transferred to a critical care ward afterwards for observation. Involvement of consultants in theatre varied widely across Trusts, as did admission to critical care.

“The clinical pathway is complex, and at present it is not possible to say why some patients have a worse outcome than others. There are other factors at play such as age distribution and pre-existing illness. We need more information, and this should be provided by the newly commissioned Health Quality Improvement Partnership (HQIP) National Emergency Laparotomy Audit (NELA),” says Dr Murray.

Across all the hospitals combined, the time of day the surgery took place was a major factor, with 8am to 6pm the safest time of day with a 30-day mortality of 14% and the highest proportion of operations with consultant anaesthetists (76%) and/or consultant surgeons (81%) present. From 6pm to midnight mortality increased to 17%, while anaesthetist and surgeon presence fell to 55% and 68% respectively. The most dangerous time (while also the time with the lowest proportion of operations) was midnight to 8am, with a mortality of 20%, and anaesthetists attending 41% of operations and surgeons 62%.

Overall, 30-day mortality for the operation was 15%, increasing to 24% for patients aged 80 years and over. Mortality was lowest in those aged 50 years and under, at 10%. “The data confirm emergency laparotomy in the UK carries a high mortality. The huge variation in clinical management and outcomes indicates the need for a national quality improvement programme,” says Prof Grocott, also Director of The Health Service Research Centre of the National Institute of Academic Anaesthesia, and chairs the new National Emergency Laparotomy Audit. “These results have been sent back to individual hospitals, allowing them to identify and reflect upon their own outcomes. The audit team will also follow up with the best and worst hospitals to understand what is being done well and to improve performance where necessary.”

The full national audit will begin in 2013, with all results, including the identity of all contributing hospitals, published in 2015.

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Note to editors: Data from this audit was recently published in the British Journal of Anaesthesia. PDF attached.

About the AAGBI

The Association of Anaesthetists of Great Britain and Ireland (AAGBI) is the leading membership body for over 10,500 anaesthetists in the UK and Ireland. The AAGBI promotes patient care, safety and advances anaesthesia through education, publications, research and international work, as well as the professional aspects of the specialty.

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