Emergency Laparotomy

Dr Ben Griffiths

Specialist Anaesthetist, Auckland City Hospital

High-risk patients undergoing emergency surgery account for 12% of all in-patient surgical procedures but 80% of deathsⁱ. Those that survive, but develop complications, require hospital care for prolonged periods, suffering significant reductions in functional independence and long-term survival. Data published shows that laparotomy surgery, particularly in the emergency context, is one of the strongest factors associated with poor outcome^{ii,iii,iv}.

Emergency laparotomy is a common procedure, with approximately 220 primary cases per year at Auckland City Hospital (ACH). All anaesthetists who participate in acute work will come across these cases frequently, yet with a 30 day all-cause mortality of approximately 15%^v (increasing to over 25%^{vi} at one year) it is one of the highest risk procedures we perform.

In stark comparison to other high-risk areas such as the cardiac patient for non-cardiac surgery there are few clear guidelines regarding management in this high-risk group. There has been a growing concern, supported by evidence in other parts of the world, that care for these patients is unacceptably poor^{vii}. It must also be remembered that, as a patient group, they represent one of the greatest logistical challenges to any acute hospital. There have been a number of responses to this growing concern, including national audit projects^{viii} and comprehensive integrated clinical pathways.

Doing the right thing for the right patient is particularly difficult for such a heterogenous patient group. Management of risk through effective communication and rapid decision making during the patient journey are cornerstones if success is to be achieved. However, as we will see, this appears to be a consistent failing.

What are the key components of clinical excellence in this patient group? To what extent are we falling short? And how might we move forward in a positive and effective manner?

References

- 1. Rupert M Pearse et al. Identification and characterisation of the high-risk surgical population in the United Kingdom. Critical Care 2006
- 2. Anderson I et al. The Higher Risk General Surgical Patient Towards Improved Care for a Forgotten Group. London: Royal College of Surgeons of England 2011
- 3. Pearse RM et al. Mortality after surgery in Europe: a 7 day cohort study. Lancet. 2012 Sep 22;380(9847):1059-65
- 4. Pearse RM et al. Identification and characterisation of the high-risk surgical population in the United Kingdom. Crit Care. 2006 Jun 2;10(3):R81
- 5. Saunders D et al. Variations in mortality after emergency laparotomy: the first report of the UK Emergency Laparotomy Network. Br J Anaesth. 2012 Sep;109(3):368-75
- 6. Watt D G et al. 30-Day and 1-year mortality in emergency general surgery laparotomies: an area of concern and need for improvement? European Journal of Trauma and Emergency Surgery. September 2014
- 7. Anderson I et al. The Higher Risk General Surgical Patient Towards Improved Care for a Forgotten Group. London: Royal College of Surgeons of England 2011
- 8. NELA.org.uk