Physiotherapy before abdominal surgery reduces fatal respiratory complications.

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Surgeons attending the Royal Australasian College of Surgeons (RACS) Annual Scientific Congress in Adelaide have been told that respiratory complications were the most common and serious complication type following open upper abdominal surgery, according to research undertaken at the Launceston General Hospital and the University of Melbourne.

Ms Ianthe Boden, Clinical Lead Physiotherapist at the LGH and PhD candidate at the University of Melbourne is currently conducting four large multicentre clinical trials investigating the prevention of respiratory complications following major abdominal surgery.

Ms Boden said that despite the commonality, little had been published on hospital costs, length of stay, morbidity, or long-term mortality consequences of post-operative pulmonary complications (PPC).

“Chest infections following this type of operation can occur in up to 1 in 3 patients. Patients who get chest infections are more likely to die in hospital, need a lot more antibiotics, spend more time in hospital, and cost the hospital on average an additional $15,000 per chest infection to treat,” she said.

Ms Boden researched 699 adult participants scheduled for abdominal surgery at three Australian and New Zealand hospitals. 20 per cent of upper abdominal surgery patients and 10 per cent of lower abdominal/hernia surgery patients suffered PPC and these patients were 17 times more likely to die in hospital or have a much longer length of stay.

Ms Boden then conducted a randomised controlled trial looking at preventing these chest infections. The trial provided physiotherapy education and breathing exercise training to patients before surgery. This training taught patients to start their breathing exercises immediately on waking from the operation and to do these exercises every hour until they were up and walking.

The chest infection rate, and specifically pneumonia, was halved in the treatment group. This also lead to a reduction in hospital stay, and, if trained by an experienced physiotherapist, patients were less likely to be die up to one year following surgery.

“This trial is one of the most significant to emerge in the last 20 years in the fight to prevent chest infections using therapeutic interventions.

“Our trial was a robust, double blinded, multicentre, randomised controlled trial that demonstrated a halving of chest infections with the provision of a single $30 pre-operative physiotherapy education and training session.

“Simply having patients taught how to do their own preventative deep breathing exercises as soon as they wake up after their operation can make a vast difference to their wellbeing and
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cost to the hospital, all with a no-risk, once-off physiotherapy training session before the operation. Unfortunately, less than 5 per cent of hospitals in Australia and New Zealand currently provide this service," Ms Boden said.

For more information about the Annual Scientific Congress please visit: www.asc.surgeons.org

About the Royal Australasian College of Surgeons (RACS)
RACS is the leading advocate for surgical standards, professionalism and surgical education in Australia and New Zealand. The College is a not-for-profit organisation that represents more than 7000 surgeons and 1300 surgical trainees and International Medical Graduates. RACS also supports healthcare and surgical education in the Asia-Pacific region and is a substantial funder of surgical research. There are nine surgical specialties in Australasia being: Cardiothoracic surgery, General surgery, Neurosurgery, Orthopaedic surgery, Otolaryngology Head-and-Neck surgery, Paediatric surgery, Plastic and Reconstructive surgery, Urology and Vascular surgery.

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