ACTA Project Grant
2013 Round 2

Successful Applicant
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Amount awarded: £13,825

Scientific Abstract
Patients after lung resection surgery are at risk of respiratory complications, and consequently delayed recovery and worse outcomes. Non-invasive positive pressure ventilation or continuous positive airways pressure administered prophylactically postoperatively can improve functional performance and decrease respiratory complications. However these are uncomfortable and poorly tolerated and their use may be limited by increased staffing and monitoring requirements. Nasal high flow oxygen is well tolerated and indeed more comfortable than standard nasal or facemask oxygen because it is warmed and humidified, and can be administered on a standard postoperative ward. It is also provides a low level of continuous positive airway pressure, as well as reducing ventilatory deadspace, matching patients' peak inspiratory flow and so reducing work of breathing. Our hypothesis is that prophylactic use of nasal high flow oxygen for 24 hours after lung resection will improve patients' functional recovery as measured using a 6 minute walking test, as well as being more comfortable than standard nasal or facemask oxygen. Improved functional recovery may be associated with fewer respiratory complications and may subsequently lead to earlier discharge from hospital as well as faster return to normal activities of daily living.