



**Innovating
Perioperative Care**
PeriopMan 2022
18 March 2022

One Lung Ventilation Course

T. Sharp¹, R. Mistry²

¹ Consultant Anaesthetist, Royal Bolton Hospital, Bolton, UK

² Consultant Anaesthetist, Salford Royal Hospital, Salford, UK

Salford Royal **NHS**
NHS Foundation Trust

University Teaching Hospital

safe • clean • personal

Introduction

Salford Royal Hospital is a large tertiary neurosurgical and major trauma centre. Reconfiguration of services across Greater Manchester has led to the trust also becoming a major centre for upper gastrointestinal (UGI) surgery, performing in excess of 150 oesophago-gastric resections per year. Whilst a subset of consultant anaesthetists regularly anaesthetise patients for these elective procedures it was recognised that a proportion of consultants within the department of anaesthesia may not be confident in performing one lung ventilation (OLV) techniques. Given that some of these patients will unfortunately need to return to theatre out of hours to manage postoperative complications it was deemed vital to ensure that all consultants felt confident in performing OLV and that their skills were maintained to ensure the safe provision of patient care, particularly in the management of this high-risk group out of hours.

Method

We conducted a survey amongst consultant anaesthetists. There were 39 responses. 71 % of consultants did not have a regular upper GI list, 64 % of anaesthetists covered general emergencies as part of their on-call commitments. 56 % had not performed OLV in over a year and the last time 41 % had performed OLV was in an emergency setting. Only 50 % of consultants expressed confidence in selecting appropriate equipment for performing OLV and only 53 % of consultants felt confident in managing complications during OLV. 26 % of consultants had attended a course on OLV. 82 % expressed a wish to attend a OLV course covering key aspects of anaesthesia for upper GI surgery and OLV.

We developed a half-day multidisciplinary OLV course delivered by a faculty comprising experienced consultant anaesthetists and operating department practitioners (ODPs) who regularly perform OLV. The course took place in the education centre and included talks on OLV physiology and airway equipment followed by hands on practice and familiarisation with insertion of a variety of airway devices available for use on specialist OLV mannikins (Figure 1). Simulation-based scenarios allowed participants to run through the management of various complications and troubleshoot problems that can occur during OLV in a safe environment. Expert panel case-based discussion and question and answer (Q&A) session as well as an opportunity to reflect on clinical experiences formed the final part of the course.



Figure 1. AirSim Advance Bronchi X Intubation and Bronchoscopy trainer.

Results

Formal feedback from the course was excellent (Figure 2). The course has since been accredited by the Royal College of Anaesthetists (RCoA) and is delivered three times a year forming an integral part of continued professional development (CPD). We have developed equipment checklists, emergency algorithms and a OLV Kit trolley to support the care of patients undergoing OLV.



Figure 2. Feedback comments.

Conclusion

The development and success of this course highlights the importance of recognising how an expansion of clinical services within a trust can result in a need to ensure certain skills are maintained across a large department, particularly where skills fall outside of consultant anaesthetists and ODPs usual clinical practice. Recognising and implementing effective strategies to ensure these skills are practiced and maintained is vital in ensuring safe provision of care for our patients.

Acknowledgements: Many thanks to Dr Leanne Darwin, Dr Graham Nelson, Dr Catherine Furay and Mr Dave O'Brian for their help with delivering this course.