

## ORIGINAL RESEARCH

A47

**WESSEX ONE LUNG COURSE: INCREASING EXPOSURE, EXPERIENCE AND CONFIDENCE OF DOUBLE LUMEN TUBES AND ONE LUNG VENTILATION FOR ANAESTHETISTS IN WESSEX.**

**Richard Healy**<sup>1</sup>, Matthew Kerton, Michael Stewart; <sup>1</sup>University Hospitals Southampton NHS Foundation Trust, Southampton, United Kingdom

**Correspondence:** [richard.healy@doctors.org.uk](mailto:richard.healy@doctors.org.uk)

[10.54531/RHEP2402](#)

**Introduction:** The skill of placing, checking and troubleshooting double lumen tubes (DLTs) is an important aspect of training in anaesthesia. However, this can be a source of anxiety, misconception and unsafe practice due to a lack of exposure.

The ability to conduct an anaesthetic on one lung forms part of the Royal College of Anaesthetists 2021 Stage 2 Curriculum, stating that anaesthetists should be able to “Demonstrate safe anaesthetic care for adults requiring non-complex thoracic procedures under direct supervision, including one lung ventilation” [1].

The lack of exposure to this skill may continue to the level of consultant, for example those who have occasional exposure to DLTs in certain lists such as CEPD, oesophagectomies or spinal surgery.

The aim of the One Lung Course is to increase confidence and exposure to the skill of placing DLTs and troubleshoot common problems of one lung ventilation (OLV). This is achieved with skill-stations and simulation-based scenarios with common problems experienced during OLV cases, such as hypoxia on one lung, dependent lung tension pneumothorax and desaturation during rigid bronchoscopy.

The mannequin we use is dynamic in its ability to develop clinical changes such as a pneumothorax during a simulation,

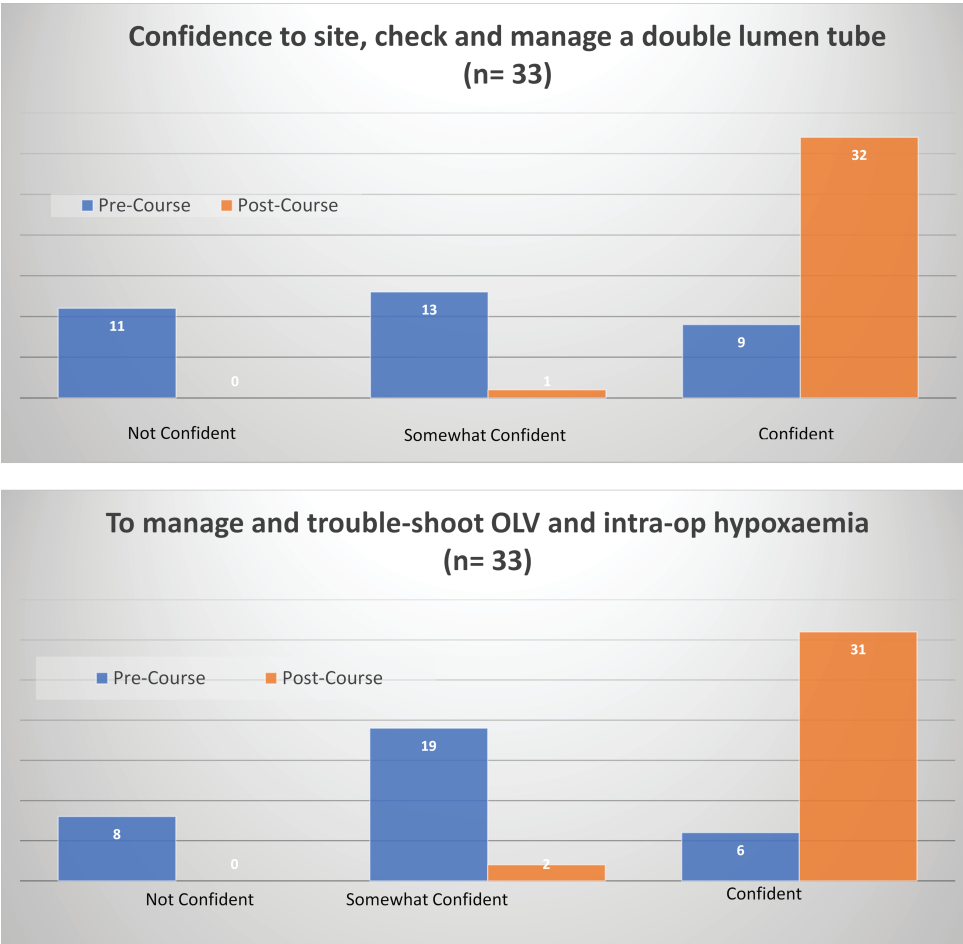


Figure 1-A47.

enabling the real-time and tactile feedback as one would experience with a real patient.

**Methods:** A pre-course questionnaire asked the candidates to detail the number of DLTs recorded in their logbooks and their self-reported confidence of this skill, alongside troubleshooting OLV and intra-operative hypoxaemia during a OLV case on a scale of 1-10. The same questions were posed after the course to compare pre- and post-course scores.

**Results:** The results were collated from all candidates, 33 in total, who were from a range of training grades, (at least ST4) and included some non-thoracic consultant anaesthetists. The range of logbook entries were from 0 to 60.

Results were highly conclusive that the teaching and revision of these skills increased the candidates' confidence of siting, checking and managing a DLT and troubleshooting intra-operative hypoxaemia. Confidence increased by 70% from pre- to post-course for both measures (Figure 1-A47).

**Discussion:** The use of simulation for these skills in a low-stress and non-clinical setting significantly increased the candidates' knowledge and confidence in the skill of placing a DLT.

The aim going forward is to incorporate this simulation as part of anaesthetic trainees' Cardiothoracic Anaesthesia Block. This will help increase knowledge and confidence for managing DLT anaesthesia.

**Ethics statement:** Authors confirm that all relevant ethical standards for research conduct and dissemination have been

met. The submitting author confirms that relevant ethical approval was granted, if applicable.

REFERENCES

1. General Anaesthesia | The Royal College of Anaesthetists [Internet]. [www.rcoa.ac.uk](https://www.rcoa.ac.uk). [cited 2024 Apr 30]. Available from: <https://www.rcoa.ac.uk/documents/2021-curriculum-learning-syllabus-stage-2/general-anaesthesia>.