**United Kingdom anaesthetic practice for lung resection surgery: a national survey.**

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A 2016 Cochrane review of paravertebral block (PVB) versus thoracic epidural (TEB) for patients undergoing thoracotomy showed PVB was as effective as TEB for pain control. The review demonstrated no difference in major complications [1]. A 2016 German survey on anaesthesia in thoracic surgery reported an 85.6% utilisation of TEB for peri-operative and post-operative analgesia [2]. A UK survey regarding thoracic anaesthesia practice was completed in 2010 [3]. Analgesia for video assisted thoracoscopic surgery (VATS) for lobectomy was reported as 50% using PVB and 10% TEB. However, 50% used TEB for thoracotomy. We set out to clarify current practices in the UK.

**Method**

Data was collected between April and June 2017 via a national survey using 'Survey Monkey'. Questioning addressed preferred mode of anaesthesia, analgesia and regional technique for patients undergoing VATS or Thoracotomy for lung resection. Data queries were executed using Microsoft Access 2010.

**Results**

VATS resection questions had 118 responses. Volatile was the most common method of maintaining anaesthesia 84 (72.4%), total intravenous anaesthesia (TIVA) was preferred by 23 (19.8%) the remaining using both techniques. PVB was preferred by 96 (81.4%) with catheters being placed by 78 (66.1%). TEB is used by 1 (0.8%), and intercostal blocks by 2 (1.7%), with no regional anaesthesia performed by 19 (16.1%).

Lung resection via thoracotomy had 106 responses. Volatile preferred by 74 (71.8%), TIVA 21 (20.3%) with remaining using both techniques to maintain anaesthesia. PVB was preferred by 79 (74.5%) with catheters placed by 78 (73.6%). TEB is used by 14 (13.2%) and PVB or TEB by 4 (3.7%), and regional anaesthesia not performed by 9 (8.5%).

Single shot PVB tended to be completed by the anaesthetist, whereas catheter placement by the surgeon. Multimodal analgesia was utilised for both VATS and thoracotomy with paracetamol, opiate patient controlled analgesia +/- NSAID being the most commonly used combination. Adjuncts such as alpha 2 agonists, NMDA antagonists, gabapentinoids and magnesium were used by less than 25% of anaesthetists for both VATS and thoracotomy.

## Discussion

There is wide variation in practice in terms of analgesia and anaesthesia for lung resection surgery; this may be a reflection of unequivocal evidence [1]. Current practice in the UK is predominantly PVB, used for both VATS and thoracotomy. There is a downward trend in the use of TEB for thoracic surgery within the UK. Surprisingly, a substantial number of anaesthetists opt to use no regional anaesthesia. Our findings show that TIVA is utilised by some anaesthetists for both VATS and Thoracotomy lung resection.

## References

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