

Lung isolation algorithm: A novel template

In a recent thoracic anesthesia survey regarding the use of lung isolation techniques, we have shown that the majority of respondents were in favor of using left-sided double-lumen tube (L-DLT) in their practice. Also, in cases of intraluminal left main bronchus lesion and left pneumonectomy, right-sided DLT (R-DLT) was often cited. In the same survey, few physicians reported using bronchial blockers (BBs).^[1] Recently, many varieties of BBs have been introduced in thoracic anesthesia practice — dependent blockers like Univent tube and independent blockers like Arndt, Cohen, Fuji and, most recently, EZ-blocker.^[2,3] In the daily practice of thoracic anesthesiologists, a question usually arises about the best device to be used to achieve best lung isolation. That question was answered by Campos as follows: DLT and BB should be part of the armamentarium of every anesthesiologist involved in lung isolation techniques and every device should be tailored to specific case needs.^[4] Furthermore, we sought to establish an algorithm that can be used as a guide to the thoracic anesthesiologist on which device to be used for lung isolation in a given scenario [Figure 1]. In this template, we have identified BBs as the best choice in patients whose trachea is intubated either with single-lumen or tracheostomy tube as well as in difficult airway thoracic patients. Campos indicated that in difficult airway patients and in patients with a tracheostomy tube in place, who require one-lung ventilation, the safest way is by awake fiberoptic intubation and the use of independent BBs.^[5] In the current template, we have added the dependent blocker, Univent tube, as a safe alternative in a difficult airway thoracic patient. We have also indicated that in a wet lung syndrome thoracic patient, namely patient with hemoptysis, bronchiectasis or patients undergoing lung lavage, the safest tool for lung isolation that is also efficient in suctioning the secretions will be L-DLT. Although right-sided DLT (R-DLT) is less frequently used nowadays by most thoracic anesthesiologists, there are still some indications for their use, like left side pneumonectomy and left main bronchus intraluminal lesion.^[6] In the given template, we have shown

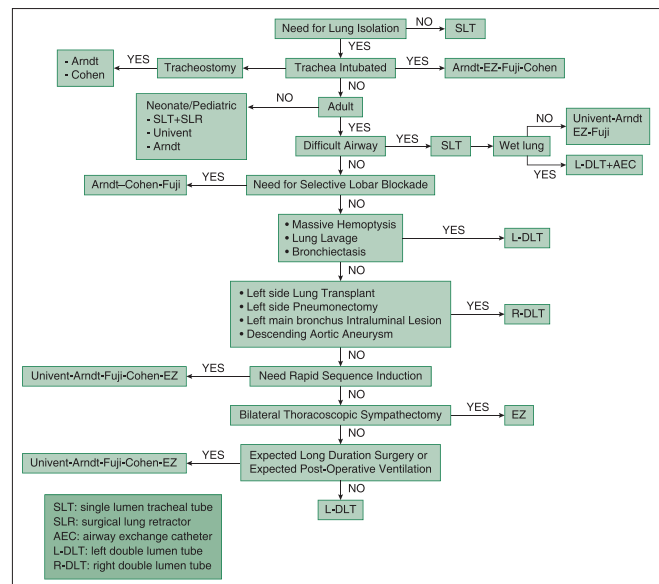


Figure 1: Lung isolation algorithm

from our experience the advantage of using EZ blocker in cases of bilateral thoracoscopic sympathectomy. The literature review supported such citation.^[7] The current algorithm presents an initial trial to gather all tools commonly used for lung isolation per a specific indication. We believe that this template will need, in the future, further verification and modification as our practice in thoracic anesthesia progressing.

Hussam Alsharani, Abdelazeem Eldawlatly¹

Fellow in Thoracic Anesthesia, ¹Professor of Anesthesia, King Khalid University Hospital, College of Medicine, King Saud University, Riyadh, Kingdom of Saudi Arabia
E-mail: dr.alsharani@yahoo.com

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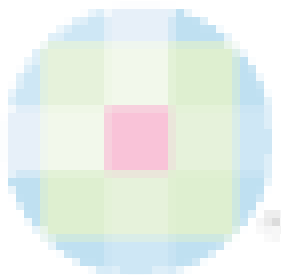
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