

device in a clinical practice in the described manner. The authors suggest that the stethoscope is outdated. We believe that their technique (especially if larger studies demonstrate similar sensitivity and specificity) needs consideration for adoption, but faulting a device merely because of its age is fallacious. Lewis<sup>3</sup> called this “chronological snobbery,” the assumption that newer must be better. We would be wise to remember that the development of a new technique does not require the elimination of an older one. The more conscientious anesthesiologist will recognize the advantage of having both tools available.

### Competing Interests

The authors declare no competing interests.

**Douglas L. Hester, M.D., Stephen T. Harvey, M.D.**  
Vanderbilt University Medical Center, Nashville, Tennessee.  
doug.hester@vanderbilt.edu

### References

1. Ramsingh D, Frank E, Haughton R, Schilling J, Gimenez KM, Banh E, Rinehart J, Cannesson M: Auscultation *versus* point-of-care ultrasound to determine endotracheal *versus* bronchial intubation: A diagnostic accuracy study. *ANESTHESIOLOGY* 2016; 124:1012–20
2. Kristensen MS: Ultrasonography in the management of the airway. *Acta Anaesthesiol Scand* 2011; 55:1155–73
3. Lewis CS: *Surprised by Joy*. Orlando, Florida, Harcourt Books, 1955, p 207

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## Detection of Inadvertent Endobronchial Intubation

*To the Editor:*

I read with interest the article by Ramsingh *et al.*<sup>1</sup> regarding point-of-care ultrasound verification of endotracheal tube (ETT) insertion depth. Numerous tests had been previously utilized to prevent and/or detect inadvertent endobronchial (main stem) intubation.<sup>2</sup> Each one of these tests has its own advantages and limitations. Undoubtedly, the use of point-of-care ultrasonography is a welcome addition, but it should not be forgotten that like any other confirmatory test, it has its own limitations. For example, deflation and reinflation of the ETT cuff to detect tracheal widening may not be safe when there is a high risk of aspiration as in trauma or obstetric patients. Applying cricoid pressure in rapid sequence induction situations may limit the area of transducer movement or distort the image. Ultrasound verification cannot be used when there is a neck collar in place unless the collar is released. Furthermore, the lung pleural sliding sign can be absent in patients with pleurisy, pneumothorax, pneumonia, or pulmonary consolidation<sup>3</sup> in spite of correct ETT position (false positive) and artifacts may mimic pleural sliding after pneumonectomy even with main stem intubation<sup>4</sup>

(false negative). Since the displacement of a properly positioned ETT may occur with changes in the head, neck, and body positions,<sup>5</sup> it has been recommended to periodically check the ETT position both intraoperatively and in ventilated patients in the critical care setting. The use of ultrasound may be difficult or impossible for intraoperative periodic assessment during surgery on the anterior or posterior neck, as well as during esophageal, thoracic, and trauma surgery where the surgical field may extend from the neck down. In all of these situations, other tests may be needed to verify proper positioning of the ETT. For early detection and correction of inadvertent endobronchial intubation, it is prudent to understand the limitations of ultrasound verification and to combine multiple confirmatory tests.

### Competing Interests

The author declares no competing interests.

**Mohammad El-Orbany, M.D.** Department of Anesthesiology, Medical College of Wisconsin, Milwaukee, Wisconsin.  
elorbany@mcw.edu

### References

1. Ramsingh D, Frank E, Haughton R, Schilling J, Gimenez KM, Banh E, Rinehart J, Cannesson M: Auscultation *versus* point-of-care ultrasound to determine endotracheal *versus* bronchial intubation: A diagnostic accuracy study. *ANESTHESIOLOGY* 2016; 124:1012–20
2. Salem MR, Baraka AS. Confirmation of endotracheal intubation, Benumof and Hagberg's Airway Management. 3rd edition. Edited by Hagberg CA. Philadelphia, Saunders Elsevier, 2013, pp 657–82
3. Sim SS, Lien WC, Chou HC, Chong KM, Liu SH, Wang CH, Chen SY, Hsu CY, Yen ZS, Chang WT, Huang CH, Ma MH, Chen SC: Ultrasonographic lung sliding sign in confirming proper endotracheal intubation during emergency intubation. *Resuscitation* 2012; 83:307–12
4. Cavaliere F, Zamparelli R, Soave MP, Gargaruti R, Scapigliati A, De Paulis S: Ultrasound artifacts mimicking pleural sliding after pneumonectomy. *J Clin Anesth* 2014; 26:131–5
5. Yap SJ, Morris RW, Pybus DA: Alterations in endotracheal tube position during general anaesthesia. *Anaesth Intensive Care* 1994; 22:586–8

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## The Value of the Stethoscope in the Era of Ultrasound

*To the Editor:*

I read with interest the editorial by Isono *et al.*<sup>1</sup> I appreciate their assessment of the value of ultrasound detecting endobronchial intubation but disagree when they state that “perhaps the stethoscope is closer to a costume piece than ever before” or that “the findings of Ramsingh *et al.* further undermine the perioperative role of the stethoscope (except perhaps as a fomite).” It is unfortunate that many anesthesiologists fail to carry a stethoscope or neglect to use a stethoscope preoperatively where it provides a wealth of information about the circulatory system, the heart, and the lungs. Auscultation of