Response

To the Editor:

We thank Drs Khosla and Kistler for their insightful comments and applaud them for analyzing their data on pleural manometry to hopefully contribute to this debate and clarify the role of manometry in the management of patients with pleural effusions. We are pleased to read that they agree with the need for adequate training, demonstration of competency, and the use of pleural ultrasonography. As discussed in our counterpoint editorial, these interventions were shown to significantly reduce the rate of iatrogenic pneumothorax. We would suggest that this patient-centered clinical end point is a good example of what we would consider a meaningful end point. Other outcomes that could be relevant may include discomfort during or after the procedure, dyspnea relief, and re-expansion pulmonary edema. As discussed, pleural manometry has not been shown convincingly to reduce the rate of pneumothorax or re-expansion pulmonary edema. We disagree with the notion that change in patient management should be considered an equivalent end point.

While definitive data on pleural manometry are clearly lacking, we do believe that monitoring pleural pressures has a role during thoracentesis. We use manometry frequently when a diagnosis of unexpandable lung is suspected based on clinical, radiologic, and ultrasonographic data. However, arguing that manometry is mandatory during all thoracenteses does not appear justified in the absence of robust data on meaningful outcomes. Manometry has been adopted by a minority of proceduralists. Requesting that other outcomes that could be relevant may include discomfort during or after the procedure, dyspnea relief, and re-expansion pulmonary edema. As discussed, pleural manometry has not been shown convincingly to reduce the rate of pneumothorax or re-expansion pulmonary edema. We disagree with the notion that change in patient management should be considered an equivalent end point.

We agree that elastance should be expressed in cm H₂O/L. Regardless of the units used, one major limitation of the study by Lan et al is that it fails to take into account “biphasic” elastance curves in which the steepest terminal portion of the pressure-volume curve should be considered for elastance calculations. As such, we suggest that absolute closing pressure may be a more relevant variable to consider.

Studies on manometry to show outcome benefit do not need to be “laborious, costly, and time consuming.” Drs Khosla and Kistler evidently perform manometry frequently. It should be relatively straightforward to explore outcomes relevant to patients and, hopefully, inform the pleural community on the true utility of manometry.

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REFERENCES


Does Cuff Material and Design Help Prevent Ventilator-Associated Pneumonia?

To the Editor:

I read with great interest the clinical review on new technologies with respect to endotracheal tubes by Fernandez et al in CHEST (July 2012). These authors provided a complete overview of the techniques available for the prevention of ventilator-associated pneumonia.

One major objection has to be made concerning the reference to a published study by our group, in which postoperative cardiac surgical patients were intubated with either a polyvinylchloride (PVC) cuffed or a polyurethane (PU) cuffed endotracheal tube. A major difference in the rate of postoperative pneumonia was indeed described. In contrast to what was stated in the review, we compared a barrel-shaped, not a tapered-shaped, cuffed endotracheal tube made of either PVC or PU. This is important because the findings of this study support and extend the data of Lorente et al, combining the barrel-shaped PU cuffed endotracheal tube with subglottic aspiration. Tapered-shaped PVC cuffed endotracheal tubes have been assessed in in vitro studies, and they have suggested a slower descent of dye solution, in contrast to barrel-shaped PVC cuffed tubes. To our knowledge, no study has examined the characteristics of a tapered-shaped PU cuff in a clinical setting.

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Response

To the Editor:

Thank you, Dr Poelaert, for your comments and your interest in our article. We carefully reviewed your study again for a detailed explanation of the methods used. As stated in your publication, "Patients scheduled for cardiac surgery were randomly assigned to receive polyurethane (PU) (Sealguard; Covidien, Mansfield, MA) or a standard polyvinyl chloride (PVC; Mallinckrodt Inc, Hazelwood, MO), high volume, low-pressure cuffed endotracheal tube (ETT) at induction of anesthesia." Your correspondence on our article suggests that the Sealguard ETT was studied by Lorente et al as a tapered PU cuff as well. The specific description of the shape of the ETT is not actually found in our article. We carefully reviewed your study again for any potential conflicts of interest: Dr Restrepo is a former participant in advisory boards for Theravance Inc; Forest Laboratories, Inc; Johnson & Johnson Services, Inc; Trius Therapeutics; and Novartis AG and has been a consultant for Theravance Inc; Trius Therapeutics; and Pfizer, Inc. Drs Fernandez and Levine have reported that no potential conflicts of interest exist with any companies/organizations whose products or services may be discussed in this article.

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REFERENCES


Development and Efficacy of a 1-d Thoracic Ultrasound Training Course

To the Editor:

Thoracic ultrasound (TUS) improves the safety of pleural interventions, and guidelines strongly recommend that image guidance should be used for pleural fluid procedures. Adequately trained nonradiology physicians have a comparable safety profile to radiologists and are increasingly undertaking TUS, partially stimulated by physician training curricula that now require TUS skill acquisition in multiple specialties. Although several TUS qualifications exist (Table 1), a common requirement is the attendance of a training course to gain the essential background knowledge and skills.

Anticipating an increasing demand for TUS courses, the British Thoracic Society pleural diseases group set up a UK