Author has nothing to disclose with regard to commercial support.

relative severity and has been validated in a thoracic surgical population.

In the United States, the Society of Thoracic Surgeons General Thoracic Surgery Database (GTSD) is the most robust and commonly used data-collection instrument in thoracic surgery. The GTSD is used to generate participant-specific feedback reports that are used to track local outcomes and facilitate quality improvement initiatives. In addition, aggregate data from the GTSD have been used to develop operative risk models and performance metrics in thoracic surgery.^{2,3} Efforts are made to continuously improve the value of the database by ensuring it reflects current practice and captures the outcomes most important to patients, providers, and other stakeholders. Recent efforts have focused on adding long-term survival data, with the incorporation of costs and patient-reported outcomes on the horizon.⁴ Grading of the severity of complications, as done in the Canadian TMM system, is an adaptation that would benefit the GTSD.

If we don't track our outcomes, we are incapable of improvement. However, accurate measurement of outcomes through a specialty specific database is only the beginning. Surgeons need to use these data to examine their own practices to improve local processes and culture, which ultimately will improve outcomes for patients. An increased emphasis is needed on the development and implementation of quality improvement initiatives that are based on measured outcomes. Without this process of self-reflection and continuous quality improvement, as advocated by Drs McGuire and Yee, our rich specialty-specific data are of little value.

Felix G. Fernandez, MD, MSc
Division of Cardiothoracic Surgery
Emory University
Atlanta, Ga

References

1. Brandt WS, Isbell JM, Jones DR. Defining quality in the surgical care of the lung cancer patient. *J Thorac Cardiovasc Surg.* 2017;154:1397-403.
2. Fernandez FG, Kosinski A, Burfeind W, Park B, DeCamp MM, Seder C, et al. STS lung cancer resection risk model: higher quality data and superior outcomes. *Ann Thorac Surg.* 2016;102:370-7.
3. Kozower BD, O'Brien SM, Kosinski AS, Magee MJ, Dokholyan R, Jacobs JP, et al. The Society of Thoracic Surgeons Composite Score for rating program performance for lobectomy for lung cancer. *Ann Thorac Surg.* 2016;101:1379-87.
4. Fernandez FG, Furnary AP, Kosinski AS, Onaitis MW, Kim S, Boffa D, et al. Longitudinal follow-up of lung cancer resection from the Society of Thoracic Surgeons General Thoracic Surgery Database in patients 65 years and older. *Ann Thorac Surg.* 2016;101:2067-76.

<https://doi.org/10.1016/j.jtcvs.2017.11.042>

SHORT-TERM OUTCOMES DO NOT CAPTURE THE REAL VALUE OF LUNG CANCER SURGERY

Reply to the Editor:

We thank Drs McGuire and Yee for their reflection on the importance of quality of care and quality improvement initiatives in our specialty.

Quality is a complex multidimensional construct that requires multiple metrics or even composite scores to measure. A single outcome such as mortality is not representative and can be misleading and counterproductive despite risk adjustment.

Morbidity is another frequently used indicator in thoracic surgery. However, this end point is plagued by problems of definition, recording, and weighing. This aspect is crucial because morbidity is currently used as an outcome indicator in quality initiatives endorsed by major organizations. For instance, it is one of the outcomes included in the composite performance score created by the European Society of Thoracic Surgeons to assess eligibility for the process of European Institutional Accreditation. The Society of Thoracic Surgeons and the European Society of Thoracic Surgeons have recently made a great effort in trying to standardize the nomenclature and definition of variables present in the 2 organizational general thoracic surgery databases, including the definition of the most common complications.¹ This is an important step that will help in the prospective collection and recording of this end point for future quality initiatives at institutional or organizational level. Still, in the majority of the published studies dealing with morbidity in thoracic surgery, the severity of complications is not graded and morbidity is defined more qualitatively than quantitatively. In many studies, complications often are defined as major cardiopulmonary complications without providing a clear explanation of what is meant as major. In a previous study,² we showed that 45% of the complications traditionally defined as major ones in the European Society of Thoracic Surgeons database were reclassified as minor by grading them with the Thoracic Morbidity and Mortality system.³

As suggested by McGuire and Yee in their letter, the use of specific grading systems like the Thoracic Morbidity and Mortality should be encouraged in our practice to improve standardization and meaningfulness of reporting and modeling of complications.

Nevertheless, in my opinion, despite all the refinements we can apply to the in-hospital traditional outcome indicators (ie, mortality and morbidity), they will never be able to reflect the real quality of our work in its entirety. We need to embrace the broader concept of value in healthcare.^{4,5} This must become the ultimate end point to assess our practice.

Author has nothing to disclose with regard to commercial support.

Author has nothing to disclose with regard to commercial support.

Short-term outcomes need to be complemented by patient-centric longitudinal end points such as survival and quality of life in relation to the financial resources spent by the provider and the society to achieve those outcomes. Patient-reported outcomes, long-term survival, and costs should be recorded and analyzed in future quality-improvement initiatives along with risk-adjusted, weighted, in-hospital outcomes.

Alessandro Brunelli, MD
Department of Thoracic Surgery
St James's University Hospital
Leeds, United Kingdom

References

1. Fernandez FG, Falcoz PE, Kozower BD, Salati M, Wright CD, Brunelli A. The Society of Thoracic Surgeons and the European Society of Thoracic Surgeons general thoracic surgery databases: joint standardization of variable definitions and terminology. *Ann Thorac Surg*. 2015;99:368-76.
2. Sandri A, Papagiannopoulos K, Milton R, Kefaloyannis E, Chaudhuri N, Poyser E, et al. Major morbidity after video-assisted thoracic surgery lung resections: a comparison between the European Society of Thoracic Surgeons definition and the Thoracic Morbidity and Mortality system. *J Thorac Dis*. 2015;7:1174-80.
3. Seely AJ, Ivanovic J, Threader J, Al-Hussaini A, Al-Shehab D, Ramsay T, et al. Systematic classification of morbidity and mortality after thoracic surgery. *Ann Thorac Surg*. 2010;90:936-42.
4. Porter ME. What is value in health care? *N Engl J Med*. 2010;363:2477-81.
5. Brunelli A. Quality of care: a plea for patient perspectives and cost analyses. *J Thorac Cardiovasc Surg*. 2017;154:1404-5.

<https://doi.org/10.1016/j.jtcvs.2017.10.099>

LEFT VERSUS RIGHT To the Editor:

I enjoyed the recent article by Jung and colleagues in the July issue of the *Journal*, "Apneic Oxygen Insufflation Decreases the Incidence of Hypoxemia During One-Lung Ventilation in Open and Thoracoscopic Pulmonary Lobectomy: A Randomized Controlled Trial." Their solution to the clinical problem of hypoxemia during lung resection could prove to be a valuable option when using double-lumen endotracheal intubation. It does, however, raise a few questions.

All the patients received a left-sided double-lumen endotracheal tube. Did Jung and colleagues notice any difference in the response to the supplemental oxygen depending on left or right thoracotomy positioning? In other words, did the results vary if the supplemental oxygen was delivered through the bronchial or tracheal lumen?

Because the right lung is typically responsible for 55% to 60% of lung function, one might expect a greater percentage increase in oxygenation when supplemental oxygen was delivered to the right side. Did any of the study patients have preoperative split-lung perfusion studies that demonstrated significant variation from the usual 55% to 60% right-sided pattern? If so, did the supplemental delivery favor the side with the significantly greater baseline perfusion?

In addition, if the catheter delivering the supplemental oxygen remained within the longer bronchial lumen, this might have affected the delivery of oxygen. Did Jung and colleagues ensure that the delivery catheter was within the respective bronchus, or was the placement in the bronchus or the endoluminal position irrelevant? I am interested in Jung and colleagues' responses and compliment them on their intriguing article.

Frank A. Baciewicz Jr, MD
Department of Cardiothoracic Surgery
Michael and Marian Ilitch Department of Surgery
Wayne State University School of Medicine
Detroit, Mich

<https://doi.org/10.1016/j.jtcvs.2017.09.129>

LEFT VERSUS RIGHT Reply to the Editor:

Dr Baciewicz, thank you for your interest in our article. You asked whether the response to the supplemental oxygen was different depending on left or right thoracotomy positioning and guessed a greater increase in oxygenation when supplemental oxygen was delivered to the right side (larger lung). Your question was very interesting. Thus, we analyzed our data to get the answer.

For background explanation, we usually try left-side double lumen tube (DLT) for the right operation and right-side DLT for the left operation unless bronchial anatomy does not allow these or the surgeon requests a specific DLT. Among 45 patients in the apneic oxygen insufflation (AOI) group, left-side DLT was used for 33 patients and right-side DLT was used for 12 patients. Right thoracotomy (right AOI) was performed in 28 patients, and left thoracotomy (left AOI) was performed in 17 patients.

For your answer, the arterial partial pressure of oxygen decrease was not different between the right and left AOI (median [interquartile]: the right AOI (right thoracotomy) = -46 [-83 to -13] mm Hg, the left AOI