our results,² our institution subsequently decided to enlarge the indications to E-CPR to all patients with OHCA satisfying the following criteria: estimated no-flow of 3 minutes or less, witnessed cardiac arrest, foreseen low-flow less than 100 minutes, expiratory carbon dioxide greater than 10 mm Hg during resuscitation, and age 65 years or younger. Such criteria were intentionally stricter than in the previous series (accepting no-flow time less than 5 minutes). Henceforth, between January 2014 and July 2015, a total of 23 patients received E-CPR; among these, 48% had sustained OHCA. Overall survival at post-E-CPR day 30 decreased from 36.7% in the first period to 29.8% in the second period; at midterm this difference was not significant, probably because of the low sample size ($P = .22$ by log-rank test). Early survival among patients with OHCA passed from 17% during the first period to 9.1% for the second period, despite adoption of more rigid inclusion criteria concerning no-flow time.

We would like to share these preliminary data, and we suggest that caution is needed in the extension of E-CPR to patients with OHCA. The results in this subgroup are heavily influenced by a large array of variables, including underreporting of no-flow time, territorial organization of emergency services, logistics of patients' transfer to the hospital, and lack of knowledge about history and comorbidities of patients with OHCA. Many of these factors often remain beyond the control of the E-CPR team.³ Dedicated protocols and scores are probably to be developed for patients with OHCA through continued collection of clinical data and multicenter registries.⁴ Efforts to minimize the time from OHCA to E-CPR implantation and adjuncts such as therapeutic hypothermia might have positive effects on outcomes.⁵ Adaptation of the inclusion criteria to local organizational conditions requires a multidisciplinary discussion among each institution's cardiothoracic surgeons, intensivists, emergency medicine specialists, and regulatory authorities. Although it is highly challenging, E-CPR remains an exciting domain where much progress can still be done.

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SURGEON VOLUME AND PROCEDURE SELECTION

To the Editor:

I enjoyed the recent article by Camposilvan and colleagues,¹ "The Effect of Surgeon Volume on Procedure Selection in Non-Small Cell Lung Cancer Surgeries," in the September 2015 issue of *The Journal of Thoracic and Cardiovascular Surgery*. The article presented data from an Ontario-based population. Camposilvan and colleagues¹ concluded that certain specific thoracic oncology resections (pneumonectomy and wedge resection) decreased as the surgeon's volume increased.

The conclusion was very interesting, with the contention that the more high-volume surgeons (ie, the more experienced surgeons) performed a sleeve or extended resection and avoided pneumonectomy or performed a more anatomic procedure, such as a segmentectomy, rather than a wedge. The discussion at the national meeting provided additional insights into why such a relationship might exist.

One other contributing factor is that National Cancer Institute-affiliated institutes and large medical centers have a weekly tumor board composed of thoracic oncologists, radiation oncologists, thoracic surgeons, and rehabilitation services. In light of the recent data² regarding the increased 90-day mortality after pneumonectomy in the same Ontario-based population, such a multidisciplinary conference would rarely favor pneumonectomy. The oft-referenced North American Intergroup 0139 study³ demonstrated that pneumonectomy after radiation and chemotherapy did not result in improved survival when compared with radiation and chemotherapy without surgery.

The mention of these references by multidisciplinary team members, despite my own institution's excellent 30-day outcomes with pneumonectomy (with or without

preoperative radiation and chemotherapy), slants the recommendation against pneumonectomy (especially right-sided pneumonectomy). My impression is that the decrease in pneumonectomy volume may also be related to the presence of a multidisciplinary tumor board at high-volume medical centers. I believe that the same argument could be made regarding wedge resection, because a multidisciplinary tumor board would be expected to favor segmentectomy relative to a wedge resection.

It would be interesting if Camposilvan and colleagues¹ were to review their data to determine whether the presence or absence of a multidisciplinary tumor board also correlated with the number of pneumonectomies and wedge resections performed at each institution and with the surgeon's volume.

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**THE EFFECT OF SURGEON
VOLUME ON
PROCEDURE SELECTION IN
NON-SMALL CELL LUNG
CANCER SURGERIES
Reply to the Editor:**

Thank you for the opportunity to respond to Dr Baciweicz's letter, which makes a

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very good point on the value of multidisciplinary tumor boards (MDTs). I completely agree with him that the healthy culture of collaboration and discussion provided by these groups allows for the improvement of patient care. Furthermore, that discourse across traditional silos of care allows for us all to reevaluate our plans and acknowledge valuable options, which are sometimes minimized or discarded and can be opaque to us when we are working in isolation. Regardless of stage, all patients with non-small cell lung carcinoma in the United Kingdom are discussed in the MDT forum, and here in Ontario, this is the recommended protocol. Functionally, managing this approach for all patients is too unwieldy for us, and typically those rounds are populated by the cases highlighted in this paper—those whose management can be more heterogeneous. But a danger arises in excluding from conversation those cases that we deem too “straightforward.”

Although I completely agree with Dr Baciweicz on the value of including MDT discussion and other factors in the analysis, to protect anonymity, the data are such that we cannot know if the patients were discussed or treated in an institution that used MDT rounds. Thus, we are not able to answer his valuable question.

I do think that this paper, among others, highlights the issues relating to surgeon preferences and choices. Although reflecting upon this aspect of the process may be uncomfortable, it is fundamental to improving our outcomes and achievements. By humbly identifying those areas that may influence our decision making, and optimizing those variables that are modifiable, we can hope to improve care of the patients.

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