Get it right the first time

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Received for publication March 27, 2017; accepted for publication March 28, 2017; available ahead of print April 22, 2017.

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J Thorac Cardiovasc Surg 2017;154:650-1

0022-5223/\$36.00

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<http://dx.doi.org/10.1016/j.jtcvs.2017.03.126>

The NCCN guidelines document evidence-based, consensus-driven management.

Central Message

Thoracic surgeons should do everything possible to minimize the incidence of incomplete resection for patients with early-stage lung cancer.

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The National Comprehensive Cancer Network (NCCN) Clinical Practice Guidelines in Oncology “document evidence-based, consensus-driven management to ensure that all patients receive preventive, diagnostic, treatment, and supportive services that are most likely to lead to optimal outcomes.”¹ Even when category 1 (high-level) evidence is available, practice variation exists in the United States, leading to inferior care and inferior outcomes.² However, optimal outcomes are most difficult to achieve when high-level evidence does not exist.

In a study from the National Cancer Database, it is concluded that the NCCN guidelines for patients with incompletely resected early-stage non-small cell lung cancer (NSCLC) are not supported, specifically addressing the lack of benefit from postoperative radiation therapy (PORT).³ Several issues regarding this study merit further attention.

First, the NCCN NSCLC guidelines recognize the lack of evidence supporting the option of PORT in patients with incompletely resected early-stage NSCLC, and this recommendation is qualified by the Category 2B status (low-level evidence, lack of uniform consensus among panel members).¹ Second, it should be recognized that the preferred recommendation in the guidelines for patients with incompletely resected early-stage NSCLC is re-resection.⁴ This National Cancer Database study did not analyze outcomes with re-resection, which may be appropriate: Re-resection is not commonly performed in patients with incomplete resection, and the use of re-resection likely represents selection bias.³

Third, the group of patients with incompletely resected early-stage NSCLC is heterogeneous and includes those with extensive lymphangitic (but N0) involvement leading to a positive bronchial margin (in whom resection also might fail to achieve R0), those who would not tolerate a larger operation needed to achieve R0 resection, those with incomplete lymph node dissection, and those who received an inferior operation (R1/R2 avoidable). It is unlikely that any analysis would identify whether any of these subgroups might benefit from PORT. More important, Smeltzer and colleagues³ should advocate the judicious use of intraoperative frozen section. Re-resection, if

appropriate, is a more reasonable and feasible option during the primary surgical resection than it would be days to weeks later. As well, in many patients with early-stage NSCLC, sublobar resection is associated with inferior margin status and outcomes.⁵

Adherence to evidence-based treatment guidelines is associated with superior outcomes. When treatment algorithms are based on low-level evidence (as with patients with incompletely resected early-stage NSCLC), patient heterogeneity is often a contributing factor, and therapeutic decision-making is more complex and difficult. For this group of patients, Smeltzer and colleagues³ use the National Cancer Database to demonstrate the lack of efficacy of PORT, which has been demonstrated for patients with stage I or II NSCLC. Excellent studies such as this one should be used to inform and improve the NCCN guidelines and to improve evidence-based, consensus-driven decisions and outcomes. Smeltzer and colleagues³ recommend that PORT not be used for these patients and that prospective randomized controlled trials should be performed. Until then, however, thoracic surgeons should do everything possible to minimize the incidence of R/R2 resection for patients with early-stage NSCLC, including evidence-based preresection staging, judicious use of intraoperative frozen section, careful consideration of the option of re-resection, and reservation of the use of sublobar resection for appropriately selected patients.

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