Commentary: Winning the race after lung surgery: The tortoise or the hare?

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Disclosures: Dr Abbas is a paid consultant for Boston Scientific, Inc, and Intuitive Surgical, Inc. Neither entity was involved in the preparation of this manuscript.

Received for publication Aug 28, 2019; revisions received Aug 28, 2019; accepted for publication Aug 29, 2019; available ahead of print Oct 31, 2019.

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J Thorac Cardiovasc Surg 2020;159:679-80

0022-5223/\$36.00

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<https://doi.org/10.1016/j.jtcvs.2019.08.109>

Twenty years ago, a study suggested that pneumonectomy can be safely performed as an outpatient procedure.¹ The same group recommended 1-day admission after major lung resection in octogenarians.² Needless to say, this has yet to permeate into routine practice. Lung surgery generally requires intubational anesthesia, intercostal incisions, and a variety of intrapleural, venous, urinary, and oxygen catheters. Patients are frequently elderly and have associated comorbidities. Despite this, and thanks to “fast-tracking,” the hospital length of stay (LOS) after lung surgery has decreased over time but continues to average about 6 days in the United States.³ Even the Society of Thoracic Surgery General Thoracic Surgery Database (STSGDB) has a median LOS of 5 days.⁴

The question of when a patient can be discharged is multifaceted, but undeniably, medical readiness and chest-tube removal are just 2 of the many factors. Others include surgeon preference, intraoperative findings, institutional features, social demographics, and the soft but powerful influence of the patient’s expectations. Naturally, the undisputed advantage of early discharge is hospital cost savings.⁵ Otherwise, it is unlikely that hospital-acquired conditions occur more frequently in any of the first few days of the postoperative period.

Linden and colleagues⁶ analyzed the STSGDB from 2012 to 2017 for postoperative day 1 discharges (POD1-DCs) after anatomic resections for lung cancer. Of 46,325 patients only 1821 (3.9%) were discharged on POD1 and 11 of the 278 (3.9%) participating sites had more than 20% POD1-DCs. Interestingly, 5% of POD1-DCs were sent home with chest tubes. Not surprisingly, POD1-DCs tended to be younger, healthier, and less likely to have had a lobectomy. The study concludes that POD1-DCs after anatomic lung resection are rare but can be done safely, as evidenced by the low rates of complications and readmission.

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Central Message

Next-day discharge after lung surgery requires careful planning to avoid complications and readmissions. Anatomic lung resection should not be considered a minor procedure.

See Article page 667.

This information is interesting. However, despite the STSGDB being arguably our most comprehensive thoracic registry, it does not share specific surgeon or center determinants and lacks precise information on social conditions, intention behind clinical decisions, and severity of complications. Postdischarge complications may not be well identified or documented.

As the cost of health care escalates, surgeons must be good stewards of hospital resources by avoiding unnecessary devices, medications, investigations, and lengthy LOS. However, this must never encroach on the patient’s best interests. Certainly, the best way to cut costs is by improving outcomes. In fact, most of the morbidities after lung surgery, such as arrhythmia, pneumonia, myocardial ischemia, pleural effusion, and death, occur later than POD1.⁷ These may be uncommon but will occur. Indeed, a recent study of the Premier database revealed increased readmissions for LOS less than 5 days.⁸

Although POD1-DC after this operation may be feasible, we must avoid the perception that lung resection is a minor outpatient procedure. Discharge planning must include caution on complications and when to seek medical attention. Special attention must be given to patients with advanced age, comorbidities, or unfavorable living conditions. Surgeons should actively seek reasons to deny early discharge, permitting it only when none exists. Such is how the methodic tortoise always bests the overzealous hare.

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