Quality and Cost in Thoracic Surgery

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KEYWORDS

• Thoracic surgery • Quality • Outcomes • Cost

KEY POINTS

- The value of health care is defined as health outcomes achieved per dollars spent.
- Medicare spends more than $12.1 billion and $1.3 billion per year on lung and esophageal cancer care, respectively.
- Numerous studies show the clinical, oncologic, and financial efficacy of video-assisted thoracic surgery for early-stage non–small cell lung cancer.
- Early data suggest that minimally invasive esophagectomy affords greater value than open esophagectomy in specific patient populations.
- Quality improvement pathways in thoracic surgery have been shown to decrease hospital costs and length of stay.

INTRODUCTION

In any well-run business, achieving the highest quality with the lowest cost is the ultimate goal—and the business of medicine is no different. Over the last several years, the value of medicine has been a buzzword throughout hospital administrative suites, and health care providers have felt the pressure. In 2010, Michael Porter, PhD, introduced the value equation by stating that the value of health care is defined as the health outcomes we achieve per dollars that are spent.[1] He further notions that using such a definition of value unites all stakeholders in health care—patients, providers, and payers—and if done right, all can benefit.[2]

In the realm of thoracic surgery, our aim should be no different. Surgeons must aspire to have high-quality outcomes for their patients while being cost conscientious when possible. As a result, success for our patients results in improved survival and quality of life, whereas decreased cost means more resources are available to effectively treat those who are in need. This article aims to investigate current challenges faced by thoracic surgeons with regard to achieving the greatest value for our patients.

BACKGROUND

Context: Health Care Spending in the United States

In 2014, the United States spent $3 trillion on health care, averaging approximately $9500 per person and representing approximately 17.5% of the gross domestic product.[3] Furthermore, almost one-third of all costs were associated with hospital-based care ($971.8 billion). Medicare spends more than $12.1 billion and $1.3 billion per year on lung and esophageal cancer care, respectively.[4] Moreover, data from the National Cancer Institute indicate that the cost of health care per person with either

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lung or esophageal cancer exceeds $60,000 during the first year of diagnosis; and for those individuals battling cancer, costs can be overwhelming.[5] Sadly, the costs associated with dying of the disease are even higher (Fig. 1).

Obamacare

Over the last several years, health care costs have increased at rates faster than normal, and this is largely thought to be attributed to major coverage expansions under the Affordable Care Act.[3] In 2010, when President Obama signed the Patient Protection and Affordable Care Act (PPACA) into law, Medicaid coverage for lower-income Americans rapidly expanded. As a result, uncompensated costs decreased while hospital profit margins increased.[6] Unfortunately, despite that fact that the PPACA was designed with the goal of cutting overall health care costs, it seems to have had the opposite effect, likely because of increased access to care by those who were previously uninsured.

Current Landscape

Currently, the US health care system is largely based on a fee-for-service reimbursement system—meaning that third-party payers will reimburse hospitals and providers for all resources that are used, even if it is surrounding a complication. A recent study investigating complex abdominal surgery found that financial incentives are indeed misaligned with quality improvement.[7] A similar analysis was undertaken comparing surgical outcomes and Medicare payments after colectomy, abdominal aneurysm repair, coronary artery bypass grafting, and total hip replacement at different hospitals across the country concluded that hospitals with higher complication rates also had substantially higher Medicare payments.[8] Although the concept has not been directly proven in thoracic surgery, one must assume that similar scenarios certainly exist.

In an effort to reduce national health care spending, the Centers for Medicare and Medicaid Services (CMS) announced in 2007 that they would no longer reimburse for certain hospital complications (ie, "never events").[9,10] Five years later, in 2012, CMS further announced that they would start reducing payments to hospitals with excessive readmission rates.[11] As a result, the government's penalties have forced hospital administrators and health care providers to start focusing on improving the quality of patient care and optimizing outcomes to receive maximal reimbursement.

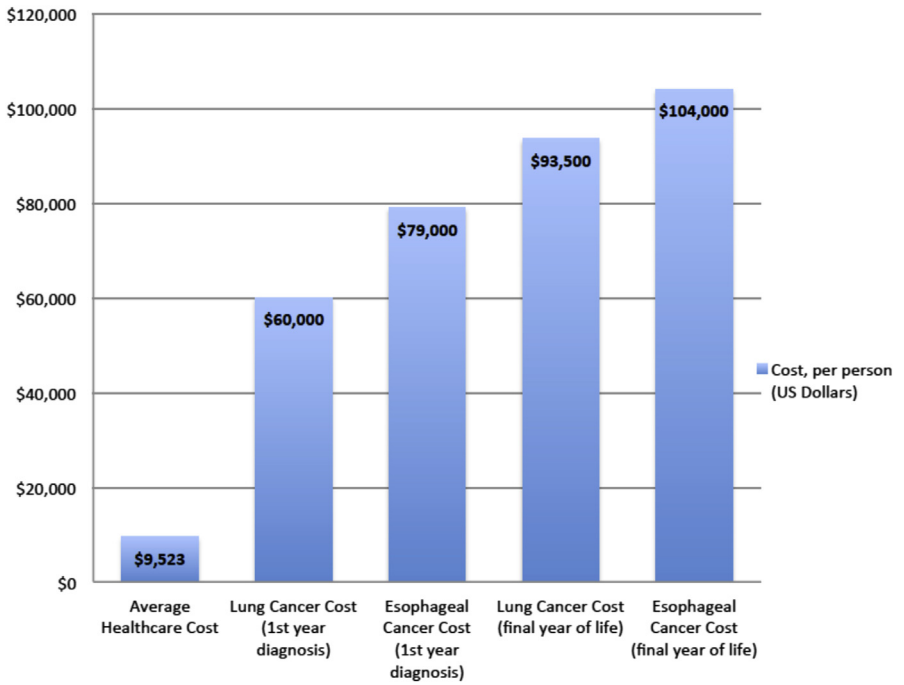

Fig. 1. Health care costs associated with lung and esophageal cancer. (*From* Annualized mean net costs of care: cancer prevalence and cost of care projections. National Cancer Institute. Available at: https://costprojections.cancer.gov/annual.costs.html. Accessed October 20, 2016.)