

Author's response to invited commentary "a perspective on the Society of Thoracic Surgeons Composite Score for evaluating esophagectomy for esophageal cancer"

Andrew C. Chang

Department of Surgery, Section of Thoracic Surgery, University of Michigan Medical School, Ann Arbor, MI 48109, USA

Correspondence to: Andrew C. Chang, MD. Department of Surgery, Section of Thoracic Surgery, University of Michigan Medical School, TC2120G/5344, 1500 East Medical Center Drive, Ann Arbor, MI 48109, USA. Email: andrwchg@umich.edu.

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The Society of Thoracic Surgeons (STS) launched its Adult Cardiac Surgery database in 1989 as a prospective clinical outcomes database for enhancing quality improvement and improving patient safety. Participation in ACSQIP is voluntary but includes more than 90% of centers performing cardiac surgery in the United States (1). In contrast the penetrance of the STS General Thoracic Surgery Database (GTSD), established in 2002, is far lower. This past year, the STS initiated voluntary public reporting of outcomes following pulmonary lobectomy for lung cancer, based on the mortality and morbidity risk model derived from the GTSD published by Kozower *et al.* (2).

In 2017, representing the STS General Thoracic Surgery Database Task Force, we published our report evaluating the development of a composite quality metric of esophagectomy for cancer (3). Similar to the methodology used for composite quality measures developed to compare outcomes across participants performing coronary bypass grafting, aortic valve replacement and pulmonary lobectomy, this composite metric was derived from the STS GTSD mortality and morbidity risk model, published by Raymond *et al.* (4). Our task force's study demonstrated that developing such a measure was feasible but also found that, while all 167 participants received a composite score, annual hospital operative volume should be at least 5 operations if a given participant were to receive a reliable assessment of performance. To translate these findings into the parlance used for public reporting based on other STS

database-derived composite metrics, center ratings of one, two or three "stars" were assigned, with a two-star rating indicating that a participant was performing "as expected". Only 7 (10%) centers had composite performance better or worse than the 95% credible interval from the average score for all 167 centers. Notably centers performing better than expected, i.e. three-star, included those that reported among the highest annual operative volumes as well as several participants that performed less than ten esophagectomies annually (3).

In their commentary (5), Drs. Liang, Luketich and Sarkaria have identified several concerns that highlight the need for increased participation in the STS GTSD. Their points also echo those expressed in the task force report regarding broad applicability of this esophagectomy composite measure, highlighted by their observation regarding possible interpretation of programs not assigned a rating: is the program a participant in the STS GTSD or is the program's esophagectomy volume lower than the threshold of five resections annually? Whether this specific composite metric will be applied towards voluntary public reporting of outcomes for esophagectomy for cancer among STS participants remains to be seen. While there remains considerable controversy regarding the possible adverse impact of public reporting (6), the goals of public reporting, i.e., to improve transparency and optimize patient outcomes in health care, remain paramount (7) and provide the impetus for developing this esophagectomy outcomes

composite metric and its subsequent iterations.

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Footnote

Conflicts of Interest: The author has no conflicts of interest to declare.

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