barriers to guideline adoption include the lack of local organizational support from clinical and administrative leadership and limited access to recommended care.[5] Nearly 2 decades ago, researchers identified facilitators of guideline-adherence, including (1) engaging local stakeholders during national guideline development; (2) dissemination through provider-specific communications and education; (3) implementation with patient-specific reminders, physician prompts, performance feedback, and easy access to reference materials; and (4) accountability for process measures and outcomes in the form of peer pressure, incentives, or sanctions.[6] Adopting these facilitators may positively influence surgeon perceptions about practice guidelines.

Shemanski and colleagues have made an important contribution advancing our understanding of how thoracic surgeons view and use health service research and practice guidelines in routine clinical practice. They have used qualitative research methods that are less well known to surgeons but increasingly used by surgeon-scientists to generate new hypotheses.[2] Through these and other efforts, we will learn how to better leverage our scientific knowledge and clinical acumen to improve patient outcomes, eliminate health inequity, and increase value.

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# Commentary: Defining HSR: Health services research or healthy skepticism remains

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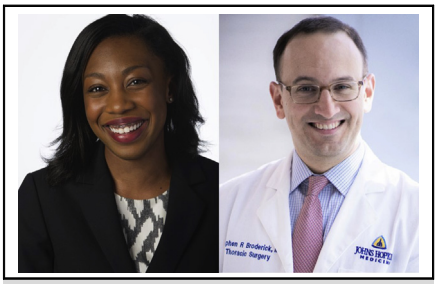

Alexis P. Chidi, MD, PhD, MSPH, and Stephen R. Broderick, MD, MPHS

**CENTRAL MESSAGE**

Concern exists among thoracic surgeons about the relevance of database research and clinical practice guidelines. More robust methodology would support its incorporation into clinical practice.

Shemanski and colleagues[1] endeavor to understand the underpinnings guideline-discordant care in thoracic oncology by understanding thoracic surgeons' perceptions of administrative database research and application of published guidelines in clinical practice. This qualitative analysis included structured interviews with 27 thoracic surgeons annotated by demographic and practice data that were then analyzed using mixed-methods approaches. The authors identify a few salient themes: surgeons believe that selection bias and lack of detailed clinical data limit the application of results from database research to clinical practice, database research may be best used to generate hypotheses that may then be tested using more rigorous methods, and there are mixed opinions about the utility of clinical guidelines in shaping clinical care. Finally, by combining qualitative and quantitative data, they found that

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older surgeons and those in practice longer were less likely to refer to guidelines in the provision of patient care. Older surgeons were also more hesitant to incorporate findings from database research into their clinical practice. The authors suggest that health services researchers address how new data are presented to influence clinical practice patterns.

This study identifies a number of critical issues in the way clinical research is performed in thoracic surgery. Although many respondents were academic surgeons participating in the Thoracic Surgery Outcomes Research Network, some expressed doubt that the type of research commonly performed is truly moving the field forward. Respondents highlighted randomized controlled trials (RCTs) as the standard in clinical research, but the reality remains that there are many more important clinical questions to be answered than can feasibly be studied through RCTs. Perhaps most notably, despite evidence of improved outcomes after guideline-concordant care in non–small cell lung cancer,[2-4] more experienced surgeons tended to prefer their own experience and that of thought leaders to guidelines considered outdated and ill-equipped for use in the current era of personalized medicine.

Fortunately, the term *health services research* represents much more than retrospective analyses of large administrative databases. Because it is not feasible to perform RCTs for every important clinical question, we can instead make more robust use of the many research designs and analytic techniques available in the health services research toolbox. We should harness collaborative groups to design prospective multicenter cohort studies that include clinically important data points. Inclusion of factors important to treatment selection in datasets will allow for application of propensity-based analytic techniques to limit the influence of selection bias on study results. Shemanski and colleagues[1] demonstrate the power of qualitative data analysis, which can be used in tandem with well-designed prospective studies to understand the interactions between individual patient characteristics and treatment selection decisions among expert surgeons. A combination of clinical expertise and robust data analysis can then be translated into evidence-based clinical guidelines and decision tools that improve patient care. That is health services research at its best.

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# Commentary: Rush to judgment: Surgeons' thinking, fast and slow

Andrea S. Wolf, MD, MPH

Surgeons are generally decisive people with no shortage of opinions, yet we can learn something from exploring where these opinions originate. What is most novel about the study

Andrea S. Wolf, MD, MPH

**CENTRAL MESSAGE**

The psychology of decision making can help surgeons balance evidence-based practice with practical evidence in their skepticism of database analyses and idealism of randomized controlled trials.

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