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DECIDING HOW MUCH TO PAY FOR EFFECTIVE CARE? STIRRING THE POT OF COST-EFFECTIVENESS

Reply to the Editor:

The importance of cost-effective care delivery increases almost daily. Responding to this issue is especially important for deciding about cost-effective care delivery in high-cost interventions such as cardiothoracic surgery. A recent article in the *Journal* by Ferket and co-authors¹ provided an important primer on the critical components of cost-effectiveness analysis (CEA). Arguably, this article should be required reading for surgeons who want to be part of the discussion of CEA of new and established interventions in their hospital.¹ An accompanying commentary to the article by Ferket and colleagues² outlined some criticisms and limitations of the current use of CEA, and this commentary signaled a

warning sign about blind adoption of some established CEA practices.²

There is little doubt that the current state of CEA is imperfect. The letter to the Editor by Poder,³ in the current issue of the *Journal*, highlights some of these imperfections. This letter lists some concerns and possible remedies that can be grouped in categories as suggested by Table 1. It is important to point out that the recommendations suggested by Poder³ do not have a strong evidence base and are subjective impressions worth discussing.

There is apparent uncertainty about the role of CEA in clinical and hospital practice. One thing that stands out in discussions about CEA is the relative lack of proof that CEA implementation is safe for patients and provides the best care while reducing costs. There is plenty of noise about CEA but not much rigor. For example, a 2018 Medline search on cost-effectiveness and cardiac surgical outcomes revealed 35 references in peer-reviewed journals. None of these references describes a prospective trial comparison of a new putative cost-effective intervention compared with a control group. These studies ranged from focused reviews to observational studies to modeling of proposed interventions. This list of publications is hardly the rigorous repository that justifies a major shift in adoption of an intervention based on CEA. Yet, many hospital and practice decisions are made on the basis of these sorts of evidence.

Perhaps the take-home message from the *Journal's* deep-dive into the vagaries of CEA is "Let's get more evidence." Cost-effective analysis seems to be a perfect topic for rigorous study, but the complexities of study creation and implementation involve multiple partners who have not worked well together in the past (eg, economists, administrators, surgeons, and government regulators). It would be sad if the main result of the article by Ferket and colleagues¹ is to garner criticism without devoting rigorous thought about improving CEA, while optimizing patient outcomes.

Victor A. Ferraris, MD, PhD
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TABLE 1. Limitations and remedies of cost-effectiveness analyses

Limitation	Suggested remedy
Most CEAs are not based on appropriate, current, or accurate data	<ul style="list-style-type: none"> • Perform more CEA in the context of clinical trials • CEA needs to be updated as new technology surfaces • Encourage publication of CEA studies in peer-reviewed journals, not in health economics assessment publications.
Threshold for cost per life year gained is too rigid	<ul style="list-style-type: none"> • Cost for life-year gained by intervention should be geared to specific patients and specific interventions (eg, cancer, end-of-life interventions, rare diseases)
Goals and implementation of CEA need clarity	<ul style="list-style-type: none"> • Define goal of CEA (compare various treatments from cost perspective to help decision-makers allocate scarce resources). • Variable thresholds that are disease and patient-specific may be necessary, but should avoid subjective decisions.

CEA, Cost-effectiveness analysis.

References

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