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<https://doi.org/10.1016/j.jtcvs.2018.05.062>

MAXIMIZING SOCIETY'S OVERALL HEALTH IN THE FACE OF BUDGETARY CONSTRAINTS

CONSTRAINTS

Reply to the Editor:

Butterworth and Cassano¹ highlight the importance of context and perspective when interpreting a cost-effectiveness analysis (CEA). The authors endorse a patient's perspective when questioning whether all patients

Authors have nothing to disclose with regard to commercial support.

would place the same value on a gain in quality-adjusted life years (QALYs). We agree that patients would, undoubtedly, place different values on treatments and outcomes and, certainly should not be prevented from paying for such interventions. Individualized CEA explores this perspective and the different conclusions it can lead to relative to population decision making. Because formal CEAs are traditionally conducted from the perspective of society or the health care system, QALYs reflect community preferences for health states rather than individual patient preferences. However, the debate over community-based versus patient preferences in CEA continues.¹

Similarly, the amount paid for a gain of 1 QALY (ie, the willingness to pay [WTP]) will vary across individuals, but an estimate of the societal WTP is what is used in formal CEAs. When considering the generalizability and value of CEA, we agree with Pöder's assessment² of the risks associated with paying more for an equal number of QALYs gained in some contexts than in others. The value of a consistent standard is that interventions can be fairly compared based on normalized cost and effectiveness values.¹ However, it has been suggested that a gain in QALYs is actually more highly valued for children, severely ill patients, disabled individuals, and those at the end of life.^{3,4} In the United States, there is no well-established WTP threshold and formal CEAs have used estimates between \$50,000 and \$200,000 per QALY (Figure 1). This lack of a standard may be in part due to legislation prohibiting CEA in public payer health care decisions regarding treatment approval.^{5,6} The US Medicare program does utilize CEA when deciding on reimbursement for several preventive health care services.⁵

FIGURE 1. The intervention's ICER should meet a specific WTP threshold.

We also agree that readers of CEAs need to be cognizant of the moving target phenomenon, whereby the incremental cost-effectiveness ratio from interventions can change over time, an example of which is the left ventricular assist devices (LVADs).⁷ A 2006 UK Health Technology Assessment largely comparing first-generation LVADs as bridge to transplant with medical management in end-stage heart failure patients, found that LVAD placement was more costly and less effective than medical management.⁸ Yet, a 2013 update using second- and third-generation LVADs in similar populations concluded that technological improvements had made newer-generation LVADs more cost-effective.⁹

Despite some of these challenges, the explicit process of formally weighing the risks and benefits, both health and economic, is essential for guiding optimal decision making in a rapidly advancing field like medicine, where budgets remain perennially constrained.

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Supported by a cooperative agreement (No. U01 HL088942) funded by the National Heart, Lung, and Blood Institute and the National Institute of Neurological Disorders and Stroke of the National Institutes of Health and the Canadian Institutes of Health Research. Dr Ferket was supported by American Heart Association grant No. 16MCPRP31030016.

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<https://doi.org/10.1016/j.jtcvs.2018.06.081>

PITFALLS IN COST-EFFECTIVENESS ANALYSIS IN SURGERY

Reply to the Editor:

We thank Dr Poder for his kind remarks about our editorial regarding cost-effectiveness analysis (CEA).^{1,2}

We appreciate his providing examples in which national agencies use differing cost thresholds for a quality-adjusted life year. Going forward, we agree with Pandya³ that CEA may best be used to convert low-value care to cost-effective care by negotiating a better price for drugs and other services. Nevertheless, our fundamental skepticism remains. The validity of CEA depends on the validity of the source data and of the underlying assumptions regarding value. We worry that surgical CEA studies may fail to consider the importance of the skill of the operator. The costs and benefits of the Whipple operation would likely differ greatly when performed by a specialist in hepatic, pancreatic, and biliary surgery who performs 45 such operations per year versus a surgeon who performs 8 such operations per year. Will we merge the data from both surgeons to determine whether the operation is cost-effective versus chemotherapy alone?

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<https://doi.org/10.1016/j.jtcvs.2018.06.012>