Thresholds in Cost-Effectiveness Analysis—More of the Story

To The Editor—Thanks are due to Eichler et al. [1] for their excellent overview of the history and issues concerning the various thresholds used as a benchmark in many cost-effectiveness studies. The international picture they present is especially welcome. I offer the following to complement what Eichler and colleagues reported:

1. In reviewing the various thresholds used in the literature, Eichler et al. (citing Hirth et al. [2]) note the dialysis standard of $50,000 per quality-adjusted life year (QALY) as the “purported cost/QALY to the Medicare program for patients with chronic renal failure . . . [and which] might have been based on considerable underestimation of the program’s true costs [1].” From accounts published by Richard Retting of RAND, we find that, except in the broadest sense, costs were not clearly enumerated. At the time the expansion of Medicare to patients with chronic renal failure was before Congress in 1972, the Social Security Administration’s Office of the Actuary provided estimates of first year costs of the expansion to be between $100 million and $500 million. Senator Vance Hartke, in proposing the kidney entitlement amendment during Senate hearings, offered estimates of $75 million for the first year and $250 million for the fourth year. Hartke also stated that per patient costs of dialysis ranged from $19,000 per year for the first year of home dialysis to up to $25,000 per year for treatment in a hospital, figures that were provided to Hartke by the National Kidney Foundation and physicians who were also advocating for the entitlement. These reported events, then, suggest that the use of any dollar amount as implying willingness to pay for a medical or health intervention by the federal government—and by extension, the $50,000 threshold—appears to be without basis. Of particular note is how testimony in support of the amendment included dialyzing a patient—who volunteered to do this—before members of the House Ways and Means Committee. Unbeknownst to this legislative audience was that the dialysis session was quickly aborted as the patient went into ventricular tachycardia during the procedure. The legislative audience, however, believed they had witnessed a completed procedure [3,4].

2. Hirth et al. [2] used the results of their review of studies estimating the value of life to calculate the implied value of a QALY. Depending on the method used in the original study to calculate the value of life, the reported values of a QALY ranged from $31,000, human capital approach, to $543,000, revealed preference/job risk approach, with a median value of $336,000, all in 2003 US dollars [7]. It is interesting to note that the inflation-adjusted value of $336,000 approximates the upper value of the cost per well-year, $366,000 after adjust-
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...ment for inflation, for an intervention to be considered controversial but justifiable as proposed by Kaplan and Bush.

To summarize, although some allocation decisions made in the UK and Australia seem to point to $50,000 per QALY as a cost-effectiveness threshold, neither the dialysis standard nor Laupacis et al.’s recommended guidelines for technology adoption are the basis for this figure.

The opportunity to offer these remarks is appreciated.—Franklin Laufer, PhD, AIDS Institute, New York State Department of Health.

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References