AUTHORS' RESPONSE TO ASGE COMMENTARY

We appreciate the opportunity to review the comments of Dr. Bergein Overholt, M. D., of the American Society for Gastrointestinal Endoscopy (ASGE) concerning the report that we prepared for the Office of Technology Assessment, The "Cost and Effectiveness of Upper Gastrointestinal Endoscopy. "

In responding to the ASGE concerns, we would like to point out that our data on charges as well as our cost estimates were for 1977. As such, they would need to be adjusted if one wished to judge the cost in 1980 of an upper gastrointestinal endoscopy. According to Blue Shield of California, the median physician charge in California in 1979 (the most recent year for which data are available) for an esophagogastroduodenoscopy was approximately *$275* **(as** compared to a median charge in 1977 of approximately *$250).*

We describe below some specific issues that we can see in the ASGE estimate of 1980 total yearly costs, but the overall problem with their analysis relates to using the wrong number as the denominator in the equation:

$$\frac{\text{Total yearly cost}}{\text{Yearly volume}} = \text{Average cost per procedure}$$

Our analysis is based on a theoretical yearly volume of procedures and the associated yearly cost. ASGE, in general, estimates total yearly costs, but uses current actual (low) volume figures that have no direct relationship with costs —e.g., our cost estimates are based on an endoscopic procedure taking between 40 and 80 minutes, whereas ASGE estimates that the costs of an endoscopy should be amortized over only 8 to 15 procedures per half week, that is, approximately 2 hours and 30 minutes down to 1 hour and *20* minutes per endoscopy. The ASGE estimate assumes that the costs incurred are not volume-dependent, i.e., that the nurse, secretary, rooms, etc., are not engaged in any other activities while waiting for the next endoscopy to take place. In contrast, our model assumes little or no slack-time. We estimate the cost per procedure, not the cost to an endoscopist of maintaining the facilities to perform endoscopies even at low volume. (Note that we quote in our paper a statement by Waye that an endoscopy should take no more than 15 minutes. Surely, even our time estimates are generous!)

This volume estimate is central to the ASGE argument, as is shown by the following analysis using the ASGE (half-time) *1980* cost estimates ($41,401 fixed costs per year and $30 per procedure) and our estimates of (half-time) volume (we have also added the cost of a half-time endoscopist @ $50,000 per year net):

80 minutes /endoscopy = 690/½ year = $162/procedure
60 minutes /endoscopy = 920/½ year = $129/procedure
40 minutes/endoscopy = 1,380/½ year = $96/procedure

Thus, even if one accepts the ASGE 1980 cost estimates, the costs are still only approximately 35 percent to 60 percent of the typical 1979 charges for the procedure. The point that we make in our paper regarding the difference between costs and charges for endoscopies in 1977 still holds. Note also that, using 1979 charge data, if endoscopists perform between 368 and 690 procedures a year, as the ASGE estimates, the average annual gross charges by endoscopists in California for endoscopies alone is between approximately $101,200 to $189,750 (368 x $275; 690 X $275).

Of course, the cost per endoscopy computed above used ASGE estimates of 1980 costs, We question several cost assumptions made by ASGE. Most importantly, ASGE estimates that there is a $20 "equipment repair cost" (included in their "recurring costs") per endoscopy. Since $20 times the ASGE estimates of volume *(368* to *690* procedures per year) equals between $7,360 and $13,800 per year, one has to wonder why an endoscopist repairs equipment rather than replaces equipment. None of the endoscopists to whom we have spoken has experienced repair bills that even approach the ASGE estimates. In addition, most other ASGE cost estimates are for 1980 and are somewhat generous—e.g., one might question the inclusion of an L.P.N. as well as the amount of time allocated for a secretary (is a half-time secretary really necessary for barely more than one endoscopy per day?). Finally, ASGE does not account for the fact that many endoscopies are done in hospitals

for which the physician does not incur many of the overhead costs estimated by the ASGE.

In general, we feel that the ASGE cost estimates actually support the point that we make in our paper: Charges for an endoscopy are relatively high compared to the cost of performing the procedure.

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