Cost Per Unit

To the Editor—The recent study by Dexter et al.1 indicating a methodology of using “cost per unit” to determine a more equitable and accurate mechanism of comparing costs per case is an excellent example of developing value-added information from existing data. All practicing anesthesiologists intuitively recognize the fairness of this type of equation; however, this is the first published study I am aware of that effectively illustrates this point.

My comments are only that I hope to see more of these types of practical studies. Unfortunately in our new era of cost containment, unless we begin implementing these types of evaluations, we will have no effective tools to combat the cost-containment pressures coming from the hospital and third-party payors. I sincerely believe that in a short period of time, we will be required to measure our cost effectiveness to maintain our positions in our hospitals. It has been obvious that pure cost-per-case evaluations would not take into account the many variables of our profession.

Another concern of mine is that even the cost-per-unit methodology demonstrated by these authors may not totally evaluate the real factors affecting the costs of delivering care. I suspect a more-detailed evaluation of the patient's “surgical risk classification,” as defined by the Consensus Group of the Johns Hopkins Medical Institutions,2 and possibly the Charlson comorbidity index rating3,4 may provide even more granular results. For example, for the same ASARVS generated from two cases, the total costs (intraoperative and postoperative) may differ greatly when we take into account two widely disparate types of surgical cases and/or patient comorbidity. This type of evaluation is not easy, because we do not use any standard severity rating for surgical cases. However, we may need to add these variables to truly ascertain our most accurate cost coefficient.

Finally, I find it interesting that this methodology also uses the same formula that is used to determine actual professional-fee charges. This methodology has frequently been criticized as being too complex, although as a profession, we have always maintained that it is the only fair method of determining our true charges. I would endorse this methodology as a mechanism for establishing this cost-per-unit evaluation of costs. With the AIMCare clinical system, we use a tool to capture these data elements in real time, which not only allows us to generate all charge information, but also provides us with detailed procedure and diagnosis coding for outcome analysis.5 Comparison of this cost per unit with outcome analysis may be able to finally give us a yardstick to truly measure cost versus quality. It is ironic that as we implement this methodology to further understand our own profession, we are feeling pressure from managed care and HCFA to abandon this complex billing practice and use a charge-per-case methodology. I would suggest that this type of study further provides an argument to maintain our existing billing practices.

References


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In Reply—Dr. Atkin questions whether comparing anesthesia drug and supply costs among anesthesiologists will be productive. In our table 4, we evaluated “costs per case” and “costs per unit” for anesthesia drugs and supplies among surgical specialties. The relative differences in cost per case between cardiac and neurosurgical anesthesiologists at Duke equaled $207: $63 = 3.3:1. The relative differences using cost per unit = 3.9:2.2 = 1.8:1. Therefore, the use of cost per case suggested that the differences were larger between the surgical specialties than did our method of using cost per unit. Therefore, Dr. Atkin’s comments are not referring to the use of cost per unit versus cost per case, but rather the strategy of comparing costs among anesthesiologists by any methodology. We suggest that the relevant question is whether costs will be compared among anesthesiologists. The questions are (1) whether costs will be compared among anesthesiologists with any form of adjustment for variation in case mix and, if so, (2) how much money will anesthesia groups have to pay to collect the data required to report their cost data.

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