Invited Commentary: Panel Reviews of Trauma Mortality

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It is not surprising that surgeons were the first group of physicians to publish their mortality results or disease categories. When a surgeon intervenes in a disease process the results are immediate and definitive. In contrast, in internal medicine, the physician primarily intervenes in chronic diseases with pharmaceutical agents and the results are relatively nonspecific. The surgeon must immediately assume responsibility for failure of surgical treatment, whereas the internist can attribute failure to the inevitable pathophysiology of the disease process rather than the treatment. The first report of mortality after amputation is attributed to the surgeon-anatomist Alexander Monro I in 1737. He reported 14 consecutive major amputations done without mortality by the surgeons in the Royal Infirmary of Edinburgh. Fifteen years later, he wrote that 99 operations had been done with eight deaths, a mortality rate of 8%. These two reports set a precedence for surgeons not only to report their results but to critically analyze their failures and why they occurred. It set the stage for our current Mortality and Morbidity conferences in modern teaching and community hospital surgery programs.

The classic description of how surgeons deal with their failures has been reported by Bosk. In preparation for an advanced degree in sociology, Bosk spent 18 months on two surgical services at the University of Chicago. One theme he examined was how a professional copes with the existential problem of the limits of his or her skill and knowledge. He contended that a surgeon, despite his best efforts, will sometimes fail and must explain this failure to himself, his colleagues, and the family of his patient. It is an injustice to his book to try to summarize its scope here; however, he makes a major point of the fundamental principals that surround the mortality and morbidity conference and the so called "hair-shirt" ritual that is so important to this conference. The hair-shirt ritual is essentially a form of self-criticism, confession, and forgiveness that allows the offender to reenter the group. It is a form of public exorcism. Another critical element of this forgive-and-remember methodology is that surgeons do indeed have a "collective conscience." This collective conscience is an extremely important concept to explain how panel reviews of trauma mortality came about. In the 1960s and 1970s, it became apparent for many reasons that trauma care in the United States was suboptimal and even inadequate. On the basis of this collective conscience, many surgeons asked how they could document this suboptimal care and translate it into a positive health policy change. Not surprisingly, they turned to the traditional mortality and morbidity methodology. A fundamental problem was translating a very private no-holds-barred methodology into the public arena. Typically in a mortality and morbidity conference, errors are classified as errors in judgment, errors in technique, or errors in management. This method would be inappropriate for a public forum and it is not necessarily understandable by the lay person. However, focusing on deaths is understandable if they are classified as preventable, possibly preventable, or nonpreventable. Although this methodology is clearly subjective-essentially a modified Delphi technique-consensus could be reached and mortality rates within a hospital or region could be analyzed and even compared.

Obviously, if preventable or possibly preventable death rates were high, it would suggest faults within the system or the hospital care.
The early studies were criticized with some justification. Clearly, the analysis was somewhat crude and subjective and was in many instances based on autopsy studies because hospital administrators and surgeons were reluctant to have their charts reviewed. Nevertheless, the number of studies increased, and they ultimately gained some credibility when comparisons were made between regions before and after a trauma system had been established and a resultant fall in mortality occurred. More recently, these panel reviews have been replaced by population-based studies, which clearly carry the advantage of larger numbers and less subjectivity.

In retrospect, panel reviews on trauma mortality were not all bad, and we should not apologize. They were the best methodology available at the time. Although difficult to state with certainty, they did seem to change public policy and contributed to more regions and states adopting trauma systems. The methodology may be crude, but it does focus on the issues surgeons best understand, i.e., the inescapable bad result that a mortality represents and a collective conscience to learn from our mistakes and change.

REFERENCES


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