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Editorial

SURGICAL ERROR

Professor A M S M Sharfuzzaman
Professor and Head, Department of Surgery, Sher-E-Bangla Medical College & Hospital, Barisal.

All surgeries involve risk. Surgical errors can happen even when the surgeon performing the procedure is experienced and knowledgeable. Since adverse events and "mistakes" have the potential for delaying recovery and injuring surgical patients, an ethical mandate exists to do all that can be done to prevent harm. There are 5 issues within the practice of surgery that have inhibited improvement in quality:

(1) inadequate data about the incidence of adverse events,
(2) inadequate practice guidelines or protocols and poor outcome analysis,
(3) a culture of blame,
(4) a need to compensate "injured" patients, and
(5) difficulty in truth telling.

These errors are distributed among 9 problem areas, as diagnosis, surgery, treatment, monitoring/daily care, drugs/medications, nutrition, anesthesia, complications, and others[1]. The most common problem areas in which error occurred were daily patient care (29.3%) and management of other complications (19.5%). Among the more serious errors, most were related to the management of complications (38.1%) or to surgery itself (19.7%). It is noteworthy that diagnosis was responsible for fewer than 10% of errors and anesthesia accounted for a small percentage of errors[1].

Types of errors

Judgemental Errors

Judgemental errors are usually discussed at conferences and are referred to as "errors" that are the result of inadequate knowledge or failure to employ knowledge. These errors include failure to obtain appropriate consultation and failure to order the proper tests or to interpret them improperly. The seemingly obvious way to correct these deficiencies is education. We as surgical educators spend inordinate amounts of time in such educational pursuits. If there are unhappy consequences that are predictable, such as the death of terminally ill patients, we spend relatively little time in discussion. Similarly, we do not frequently discuss good results since these are also expected.

Technical Errors

Technical errors are part of surgery and are often referred to as "tricks of the trade." Technical errors do occur and are accepted as part of a learning process in a residency but they may also be the result of defective equipment or the use of equipment in an inappropriate fashion.

Expectations Errors

Misplaced expectations are an often-ignored cause of error. It is an unspoken tenet of surgical residencies that young surgeons are to be supervised and given graduated responsibility as their abilities expand. However, in most residencies, the milestones to be achieved are vague, poorly established and rarely confirmed by any objective measure. Rarely is there an established checklist, or at least one that is actually followed. In the broader hospital system, the error of expectation in the face of dwindling resources is more egregious and relentless.

Systems Errors

More than 60% of all errors were identified as being in the system and even among those for which an individual was identified, the person was also acting within the system. Introduction of meticulously designed protocols at every step of the production. Additionally, these were to be monitored meticulously and continuously so that deviation would be immediately identified and corrected.

Mechanical Errors

The final and most infrequent cause of error is from the mechanical failure of equipment. The maintenance of equipment is, in most hospitals, outside the mainstream of medical hierarchy and follows strict protocols, schedules and criteria established by other industries.

Recommendation

We have every reason to believe that there is a real, tangible, measurable incidence of error in the practice of surgery. It is an ethical imperative for all surgeons to attempt to minimize these errors. We cannot claim that errors are either unavoidable or not preventable. Let us apply some of the wisdom as collect data, develop practice protocols and outcome measurements, eliminate the culture of blame, compensate the patients who are injured, tell the truth and take ethical challenges. We all believe that there are certain virtuous characteristics that surgeons should possess. Surgeons should possess prudence, which implies knowledge and skill in our profession. Surgeons should possess temperance, maintaining our own health and having an awareness of chemical dependency in our colleagues and patients. Surgeons should possess fortitude, which is the courage to perform when we are tired, scared or not getting paid, and the courage to speak out even if it means loss of income or friendships. Surgeons, finally, should possess a sense of justice for our society and for those in our society who are least able to speak for themselves: the poor, those who suffer discrimination and those who may be contagious or even dangerous to our own health. These virtues of prudence, temperance, fortitude and justice must be exhibited by us in addressing the issue of surgical error. The ethical imperative is to exhaust our efforts in correcting the processes and situations that lead to error. Almost all religions have adopted this last tenet as a true virtue; some call it love, some call it charity, and all describe it as a willingness "to welcome the stranger." In a sense, all our patients are strangers and we should welcome them, respect them and keep them from harm.

Reference

1. Thomas J. Krizek, Surgical Error thical Issues of Adverse Events, Arch Surg. 2000; 135(11): 1359-1366.