

A Review of the Literature on General Surgery Quality Management

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ABSTRACT

Total quality management is a methodical strategy with an emphasis on meeting customer expectations, recognizing issues, solving analytically patients' issues, and implementing continuous quality improvement. Using different combinations of the terms total quality management, healthcare, trauma, and minimally invasive surgery, an electronic search of the Pubmed, ProQuest, and Science Direct databases was used to conduct a systematic evaluation of the English-language medical literature. A component of ensuring the quality of patients' care is the evaluation of surgical outcomes. Typically, the surgeons have a unique set of mental parameters that can forecast favorable and unfavorable results. Quality control cannot be adequately replaced by surveys of complication rates and outcomes. It is impossible to distinguish between reported complications that are true (inherent to surgery and unavoidable) and those that are the result of a mistake or a mistake in judgment. A high level of quality assurance must be met during the first therapy of polytrauma patients in order to achieve the best results. The availability of sufficient resources—including personnel, technical tools, and specially built emergency rooms—at all times is a requirement.

1. INTRODUCTION

The phrase "Quality means meeting or surpassing customer expectations"[1] is the one that is used most frequently. The majority of the medical teams have been quite effective in enhancing the quality management process, despite the fact that they frequently encountered opposition to behavioral changes and a lack of complete support from top level administrators, according to the medical literature[2].

Even though improper medication dosage and surgical errors, such as incorrect site amputations, are thought to be the most common types of medical errors, there are many others. These include diagnostic errors, such as misdiagnoses that result in the wrong course of treatment, failure to use a recommended diagnostic test, failure to properly act on abnormal test results, and equipment failures (such as a defibrillator with dead batteries or medication administered accidentally because of intravenous infusions). [3].

According to the report, 7% of hospital patients have a prescription error, 4% of patients sustain an unnecessary injury, and 45% of patients face some form of medical mismanagement. 92% of anesthetic errors were found to be system problems, with 8% attributable to human error[4].

Nowadays, medical research improvements take place quite quickly, frequently surpassing our capacity to use new knowledge in the clinical setting[6]. Applying new knowledge to clinical practice effectively and precisely is really important. Clinical studies with strict controls are the best way to do this[5].

A component of ensuring the quality of patients' care is the evaluation of surgical outcomes. Typically, surgeons have a unique set of mental factors that they might use to anticipate favorable and unfavorable results[6].

There were hundreds of measures employed for the evaluation of healthcare performance, which can be divided into three basic categories [7]: (i) Structural measures: information detailing organizational resources, surroundings, tools, policies, and practices. (ii) Process measures: information on how healthcare services are provided. Outcome measures are data that show how healthcare services performed.

The healthcare systems around the world have undergone significant change in recent years. In Europe, under the auspices of the European Foundation for Quality Management Excellence Model, an organization established in 1988, debuted its Model in 1991 [8]: The person seeking medical attention is no longer regarded as a patient, but rather as a client or customer. Health care providers increasingly function in a free market system (ii). (iii) The hospitals' operating budgets have been replaced by prospective plans in terms of the financial aspects. (iv) The payment per case system for compensation has altered.

Quality Management in Trauma Care

An initial management meeting a high degree of quality assurance is necessary for polytrauma patient therapy to have the best possible results [9]. The availability of sufficient resources—including personnel, technical tools, and specially built emergency rooms—at all times is a requirement.

Priority is given to immediate care of the airway, respiration, and circulation (including here massive transfusion and surgical hemostasis) by diagnostic measures and therapy [10]. Standardized documentation, routine analysis, input from an internal quality management process, and involvement in an external audit like the National Registry are required for the preservation and enhancement of care quality[11,12].

The establishment of (a) an adequate protocol for documentation, (b) 20 criteria for the assessment of treatment quality, (c) regular statistical analysis of treatment quality, and (d) a quality circle comprising all medical specialties for data discussion [13] were essential components of the quality management system put in place at the department of trauma surgery.

The study found that the installation of a multidisciplinary quality management system greatly raised the standard of early care for patients who had suffered severe injuries.

The quality indicators trauma centers use for performance improvement and quality measurement were presented by Santana et al. in their study [14].

S telfox et al. examined if a relationship exists between trauma center volume and the form of quality improvement programs [15] in light of mounting evidence that for many therapies there is a relationship between provider volume and patient outcomes.

A level I trauma center from Italy and a level I trauma center from Romania were compared with regard to quality control for trauma management, and it was discovered that there was a significant issue with the registration and complete storage of data related to trauma care [16]. Although there were significant gaps in the early treatment of fractures, this audit from 2008 demonstrated positive results in comparison to American College of Surgeons audits [16].

Quality Management in Minimally Invasive Surgery

Surveys of outcome and complication rates are a poor replacement for quality control. It is impossible to distinguish between reported complications that are genuine (inherent to surgery and unavoidable) and those that are the result of a mistake or error in judgment [17]. Systematic videotaping of the entire surgical process provides various benefits for the surgeon and appears to be an effective method for raising surgical act quality [17].

First, as a result of the human aspect, where awareness plays a role, the video recording increases the accuracy and precision of operation.

If the surgeon is aware that every error will be recoded, the effort is doubled and the pace is slowed. When a problem arises, watching the video footage can help with an early diagnosis and reintervention. The surgeon may be able to demonstrate an accurate, thorough, and exact surgery in the event of medicolegal issues [18,19].

Kennedy et al. conducted a database study of the National Surgical Quality Improvement Program of the American College of Surgeons [20]. They gathered the postoperative issues for patients who underwent open or laparoscopic colon surgery. Laparoscopy was reported to reduce postoperative problems risk, length of stay, and overall and specific complications in older patients. Independently of the probability of morbidity data, the complication rate dropped [20].

While delays are inevitable, S avsar et al. discovered that they are more frequently related to: I visiting medical staff rather than in-house doctors, (ii) missing laboratory or/and radiology tests, (iii) missing pre-anesthesia information, (iv) missing informed consent. Delays are also associated more with visiting medical staff than in-house doctors. The following suggestions were made by the authors to reduce surgery delays: I A computer program that records informed consent, pre-anesthesia, and lab/radiology procedures to ensure that patients without all of the necessary data are not scheduled for surgery. (ii) A policy for enforcing processes for finishing up prerequisite tasks for surgery and to guarantee patients are in the hospital long enough to do all pre-surgery tests and procedures. (iii) It is important to set surgery schedules for each doctor and a linked, checking system so that any gaps in knowledge may be checked before operation. (v) A unique system of inspection for procedures entrusted to visiting physicians.

2. CONCLUSIONS

In order to sustain their competitiveness in the current manufacturers have to more aggressively adopt their total quality management approach. The idea that patient satisfaction should exceed expectations and be equal to a combination of medical services (diagnoses, medications, surgery), together with safety, security, an appropriate attitude of the nursing staff, right timing in terms of appointment, delay, service, medical treatment, and surgery, is heavily supported by total quality management in the healthcare industry.

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