Presidential Address

# *Crisis in Surgical Quality*

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IT HAS BEEN A special privilege to serve as the President of the Midwest Surgical Association during the past year. Although I had always desired to achieve this honor, I know full well that many others are more deserving and more talented. I admit that, because of a lack of talent, when I try to achieve goals, I usually need to exceed others in effort. But despite that limitation, I cannot remember when I did not know that the requirement of doing any job first and foremost was the delivery of quality. My parents, who provided most of my "midwestern" instruction, tried to teach me the value of quality. They would be patient with a lengthy performance, but only if the job was done well. Likewise, my wife, Jan, and our three children understand my talent limitations and my occasional need to spend an unreasonable amount of time on a project. I am greatly in debt to them and pray that my activities and efforts have never caused any of their goals or dreams to be unfulfilled.

My attraction to the Midwest Surgical Association has grown because of the quality of the organization and the understanding and camaraderie that I have received from colleagues and friends who are dedicated members. I am most grateful to Dr. John Glover, a colleague of the highest quality, who introduced and sponsored me into this wonderful group of professions.

Quality, once the hallmark of our medical profession, is being taken from physician control. Our profession has come to a crossroads where physicians must take urgent action to distinguish the quality of our profession from the medical industry that has it in an economic chokehold. I have developed my opinions regrading this problem after a long involvement in quality matters as Chair of cancer study group trials and as Chief of Staff for the University of Kansas Medical Center. Obtaining or insuring quality has been a major requirement of both of these positions. By involvement as a consultant benefits medical director for our largest local employer, Caterpillar, I now have the quality view and concern of a major payor of health care.

A President's Advisory Commission on Consumer Protection and Quality in the Health Care Industry recently published its report, entitled *Quality First: Better Health Care for All Americans.*[7] Soon thereafter, Executive Director Janet Corrigan discussed the commission's strategy to address serious quality issues, including unevenness of quality, avoidable errors, and misuse of services. The need for developing systems to help practitioners deal with the exponential increase in medical knowledge and critical detail was stressed. These concerns for medical quality were found to exist in both managed and nonmanaged care settings. Health maintenance organizations (HMOs) are, therefore, no longer the lone quality "boogie-man." Our whole medical profession has now been implicated.

How did we get to the point where an external study of our profession's quality would be commissioned by the President of the United States? At the beginning of Bill Clinton's presidency, cost containment and access to care were the main concerns. Quality and accountability are now the focus of current concern. But "quality" is the watchword of the American health care industry, and attempts to measure it have given rise to a whole new industry. The focus on accountability should be a major concern, since the government's focus is fraud reduction. A chilling thought is that our medical profession could receive the same negative publicity that occurred during the 1980s government fraud focus on the department of defense and the defense industry. A paradigm shift from professional trust to industrial monitoring is occurring. The accompanying erosion of public and governmental trust regarding medical care will fit squarely upon the specialty of surgery and must be addressed, because it will not go away.

As surgeons, we must be particularly concerned, because the concern about quality and accountability will center on our specialty, for the following reasons:

1. Surgical activity is mainly inpatient.
2. Surgical outcomes are easily tracked.
3. Surgical outcomes are quickly obvious.

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4. Surgical outcomes are easily measured.
5. Surgery has opportunity for great good, but likewise potential for great harm.
6. Surgical risks that are acceptable to surgeons are viewed as poor outcomes by others.

### Measuring Quality—Then

My first experience with quality surgical care occurred at a very young age. My mother gave birth to me at home with the assistance of a grandmother who had previously served as midwife for my two older sisters and many relatives and neighbors in an isolated region of the Missouri Ozarks. Shortly after the event of natural childbirth, my mother viewed the reflection of the morning light from my eyes. Before a doctor's inspection of me occurred, I had my umbilical cord tied with a sterile twine string and was cleaned and dressed in a colorful "feed sack" dress made by Granny. About 4 hours after birth, a recent graduate from Washington University School of Medicine, Dr. Marvin Gentry, arrived and inspected a newborn male. He cut off protruding bilateral preauricular lesions that represented some variation of development of my branchial cleft cyst. He deemed that I was otherwise "normal." Granny thanked Dr. Gentry and suggested he not charge too much for the trip since, after all, she had already done most of the work. No mention was made that my arrival had occurred on a Sunday and he could have declared a charge for an emergency home visit. Whatever was done or charged was considered fair by my parents, and when Dr. Gentry left, our family felt fortunate to have such a fine doctor to care for the residents of Douglas county. Today my preauricular scars are barely detectable, and this surgical procedure prevented the need for me to fight schoolmates who might see humor in a "funny thing" growing from the side of my head.

A much different encounter with the quality of surgery occurred after we moved to Kansas and I was still in grade school. My parents were seeking some assistance for me because of a persistent problem of bedwetting. I soon found myself in the office of a local physician known more for his surgical activity than his surgical expertise. After a brief examination, he determined that my problem was that I needed a circumcision. Even after I experienced the traumatic surgical experience, it did not change my pattern of bedwetting, but it greatly increased my interest in doing so. My greatest fear was what operation this "surgeon" might recommend if I returned as a failure following his initial procedure. Although my parents never complained that a quality service was not performed, to this day I have been unable to find the literature my surgeon must have utilized to support his operative treatment for my enuresis.

During the time period of my youth, the practice of medicine was much different than it is today. A physician usually developed a solo practice and managed his/her own office as a small business. Physicians based charges on an ability to pay rather than usual and customary fee schedules. They ran the local hospital and were responsible for establishing hospital policies and procedures. The physician literally controlled the total process of patient care. Because physicians had the ability and responsibility to control the total process of patient care, quality was firmly under physician control.

The quality of care was thus assigned totally to the physician of the postwar era. Physicians proudly accepted the challenge of preventing errors that might change success into failure for their patients. While surgeons were trained to be error free, it was recognized that some errors did not result in harm. Because surgeons were trained to be error free, they were always expected to recognize any critical error and avoid it. An error that resulted in a bad outcome was usually considered to be negligence. But quality was only judged among professionals, by professionals. Quality was considered the purview of the profession, and judgment of quality was rarely, if ever, dependent on any external source.

### Measuring Quality—Now

Because the delivery of health care has resulted in a health care "commodity," the "health care industry" has sought a definition of quality. The Institute of Medicine has recently defined quality as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge." Physicians have not adjusted to a role of sharing responsibility of quality assessment and measurement beyond their profession. Because physician involvement is variable in institutional matters of quality, such stated definitions of quality may not be a valid reflection of our profession.

Whose quality is it anyway? When I first heard an administrator state that a physician did not deliver quality, I became livid. How could an administrator understand quality that belonged to our profession? Whose quality is it anyway? Years later, I must admit that because of the complexities of patient care delivery, the physician is no longer under total control of the processes required. Everyone involved in the "product" of delivering health care is gaining ownership in what is called "quality." It has now become everyone's quality. The definition of quality has now taken on the expectations of those involved with the process of delivering health care as well as the patients (consumers). It is obvious that quality is now in the

eye of the beholder but not in the heart of the physician. Different groups in the health care system have different issues of concern regarding the quality of health care and are interested in different measures of performance. Physicians have always viewed quality in health care as the application of evidence-based medical knowledge of the particular needs and wishes of individual patients. Patients have a view of quality of care as to how physicians communicate with them and how long they are kept waiting for appointments. Patients place less value on the technical accuracy of the physician advice which is offered. Health maintenance organizations value patient satisfaction and use of preventive services above clinical outcomes, because they claim to be most involved in health maintenance, not treatment of disease.

Many organizations have been developed that are concerned with defining and measuring quality. These organizations serve a variety of interest groups and have variable input from physicians. A listing of prominent organizations, by year of development, origin, and function, follows.

1952: Joint Commission of the American Hospital Organization (JCAHO), initiated by the American Medical Association (AMA) and American Hospital Association. This organization monitors hospital quality and has the authority to terminate a hospital's participation in the Medicare program. It has an interest in promoting outcomes-based accreditation standards that the public could use to compare hospitals.

1972: Professional Standards Review Organizations (PROs), initially created by Congress. PRO were reorganized in 1982 and again in 1992 to move from a retrospective punitive review organization into a more proactive quality education organization.

1979: National Commission for Quality Assurance (NCQA). Restructured in 1990, the NCQA is responsible for accrediting HMOs and for producing performance measurements such as the Health Plan Employer Data and Information Set (HEDIS). The HEDIS report is a publication that includes more than 50 measures of performance.

1989: Institute for Healthcare Improvement (IHI), founded in Boston by Donald Berwick. The organization has a focus on solving problems of quality in health care. IHI organizes the annual National Forum on Quality Improvement in Health Care.

1993: Consumer Coalition for Quality Health Care in Washington, D.C., formed by the American Association of Retired Persons.

1995: Foundation for Accountability (FACCT), is a think tank and educational vehicle to develop measures of performance.

1995: National Roundtable on Health Care Quality, organized through the Institute of Medicine to heighten awareness of issues related to quality in health care.

1996: The Health Care Financing Administration (HCFA), which is responsible for ensuring that quality is met for Medicare and Medicaid patients. Quality Improvement System for Managed Care (QISMC) sets quality standards for Medicare and Medicaid managed-care plans. Although NCQA can report HEDIS data only when health plans wish them to be released, HCFA has the authority to make such data public for all Medicare HMOs. HCFA could require Medicare-approved hospitals to submit quality data that could be available to consumers to allow "comparison" of hospitals.

1997: National Patient Safety Foundation, established by the AMA. Recognizes that errors are not personal failures requiring punishment but are inadequacies of systems. The Foundation sponsors efforts to improve systems to avoid errors.

These groups, and others, are attempting to know whether care that is provided is of average, below average, or superior quality. Many attempt to assess process performance for hospitals or networks by measuring outcome quality while controlling for comorbidity. To simplify the quality measurements and hospital outcomes assessment for buyers of healthcare, Pauly[2] has reported the use of a rating system that uses groups multiple outcome measures into a single rating system. While mechanisms still exist for physicians to judge the quality of their peers, standards of quality performance are becoming set by nonphysician groups. Initially, the purpose of outcome measurements were to allow for improved management of patient care. These efforts required the leadership of physicians. While some physicians have developed careers around standards and quality issues, in general, physician interest, input, and understanding have been minimal. The result has been that the process has continued with selective or token physician involvement.

### Quality Control—Then

During the postwar era, quality medical care was directed at striving for perfection to prevent errors. This was called the "perfectibility model" of education. It was believed that if physicians and nurses could be properly trained and motivated, then they would make no mistakes. Methods to achieve this error-free goal were directed at training and punishment. People were taught to "do the right thing." Nursing training focused on teaching rigid adherence to protocols to achieve this error-free performance. Physician training depended less on such rules and protocol and relied more on the notion that obtaining knowledge would achieve such perfection. Punishment was the enforcement to ensure maximal learning effort and

was delivered mainly by peer disapproval. By this method, if an error was discovered, someone would be sought as a cause of the error. Since early in my training, I repeatedly observed what I call "The Hospital Rule," whereas some individual, but never the system, must *always* be blamed for an error. The resulting placement of blame upon an individual is met with peer disapproval of the individual and his/her error. The most severe disapproval occurs if the error results from a lack of sufficient attention to detail to make sure one is correct. Punishment for committing errors of lack of attention to detail may be dealt with by a malpractice charge from a plaintiff's lawyer with peer concurrence that the accused was negligent or capricious.

### Quality Control—Now

Dr. Lucian Leape,[3] a leader in medical quality control, has identified that our error detection/blame techniques of quality control are flawed. To analyze why errors occur, Dr. Leape relied on studies of human cognitive function by Rasmussen, which found that most human errors resulted from aberrations in mental functioning. Rasmussen categorized cognitive function as skill-based, rule-based, and/or knowledge-based.

(1) *Skill-based cognitive function:* Patterns of thought and action that are governed by stored patterns of preprogrammed instructions called schemata, which are largely unconscious. The choice of which way to drive to work is usually made by this skill-based pattern of thought. Since we usually go to work the same way, we develop a schema for that function and unconsciously perform that function without requiring a conscious decision. If an error occurs when one is utilizing a schemata, it is called a *slip.* Such errors occur less commonly than in the next two types of thought processes.

(2) *Rule-based cognitive function:* Solutions to familiar problems that are governed by stored rules. This function is based on stored rules for common problems. These stored rules allow a quick decision that has reasonable accuracy. Such stored rules conform to the logic of the "if X is such, then Y is that" variety.

(3) *Knowledge-based cognitive function:* This may be thought of as synthetic thought. It is used for novel situations that require conscious analytic processing. The action of analytic processing will rely upon stored knowledge. Errors that occur with rule- and knowledge-based cognitive function are called *mistakes* and occur most often when one is using a knowledge-based thought process.

All of these mechanisms for cognitive errors are known and expected to occur under certain circumstances. It makes sense to place responsibility on individuals to avoid and eliminate errors as much as possible. It does not make sense to expect an error-free performance. We must create mechanisms so that the process of care is managed in a way that detects a potential error and prevents an individual from creating an error that might have occurred in their care of a surgical patient.

When one's cognitive function departs from a routine schemata, the solution requires a rule-based and/or knowledge-based solution. While all three levels may be used simultaneously to function, as one gains increased expertise at an activity, the primary focus of control moves from knowledge-based and/or skill-based thought processes toward skill-based functioning. Experts develop a much larger repertoire of schemata and problem-solving rules than novices, and these schemata are formulated at a more abstract level. Expertise seldom resorts to knowledge-based functioning. Just as we develop individual schemata to gain expertise, we must develop institutional schemata to allow our institutions to function on an expert and not a novice level. The process of Continuing Improvement, which has benefited the Japanese economy, provides well-known tools. These same tools have been introduced to you by your hospital in their Quality Improvement Plan.

The prevention of accidents should have as its primary objective to make it difficult to make an error. Ideally, a system should provide for prevention or detection of errors in time for corrective action to occur. Tasks must be simplified and processes standardized. Operations should be reversible. It is fondly that I remember Dr. Stan Friesen indicating during each Whipple operation, when we had taken an action that committed us to complete the planned operation with no opportunity to reverse our actions. These accident prevention principles are used in many industries, notably the aviation industry, with great success. The benefit of these techniques to improve air travel safety has been phenomenal. Our error rate has been studied by Gopher[4] in intensive care units and revealed that errors occurred at an average of 1.7 errors per day per patient. The critical nature of each error was that they each had a 29 per cent potential of serious or fatal injury from each error. Demming, the developer of Continuous Quality Improvement in industry, estimated that in the airline industry, even an error rate of 0.1 per cent would be excessive. As surgeons, we just rethink beyond controlling individuals and control processes for error reduction in surgical patient care. We must direct our effort at quality control of the *process* rather than only against the *individual* associated with the error. Surgeons resist standardization of processes. This lack of standardization makes identification, control, or study of any system error most

difficult. Experience in other industries indicates that the process that allows the error to occur must be controlled. It is time to look for new methods to ensure quality for our profession.

A question of surgical quality has been the poor cure rates of patients receiving curative gastric cancer operations in the United States compared with Japan. In Table 1, the difference in survival for each stage is demonstrated between Japan, Memorial Sloan-Kettering Cancer Center (MSKCC), and the national results from the American College of Surgeons (ACS). The difference in survival is similar between Japan and MSKCC. Treatment of stage IV disease is improved at the MSKCC; however, the ACS national study reported by Wanebo[5] of multiple U.S. surgeons demonstrates dismal results for all stages.

To analyze this concerning difference, we used data from a national gastric cancer protocol (SWOG 9008) to study the performance and documentation of surgical quality of United States surgeons. The data were compared using our usual monitors of performance as well as the Japanese rules for the treatment of gastric cancer (Fig. 1). The Japanese have a system of rules for the treatment of gastric cancer. They include the use of a lymphatic map for determining resection requirements and documenting specific performances in the treatment of each gastric cancer patient. Our study found that gastric cancer was inadequately staged and an inadequate operation ($D_0$) occurred at least 54 per cent of the time when performed by surgeons throughout our country. By the process of standardization and development of rules, the Japanese have developed a system and process for gastric cancer care that has clear and proven value. We have not done so and, outside of certain U.S. centers, such as MSKCC, which follow specific processes, our general surgical treatment for this uncommon cancer is more frequently inadequate. It is not inadequate because of a lack of technical and surgical skills among U.S. surgeons; rather, it is inadequate because a U.S. standardized procedure and set of rules are not required and routinely followed.

A recent study by Thiemann et al.[6] found that patients with acute myocardial infarction who are admitted directly to hospitals that have more experience treating myocardial infarction, as reflected by their case volume, are more likely to survive than are patients admitted to low-volume hospitals. The capability of hospitals to perform coronary angiography, angioplasty, and bypass surgery had no significant effect on survival. Survival was singularly associated with high patient volume. Because the mortality difference was not due to technology, it is suggested that processes such as field triage and institutional schemata that accompany a high-volume activity are responsible for the survival difference. Major large payors for health care now select hospitals and systems that possess evidence-based measurements of quality, i.e., high volume.

TABLE 1. *Five-Year Survival by Stage*

| Site | Stage I | II | III | IV | Mortality |
|---|---|---|---|---|---|
| Japan | 91 | 72 | 44 | 9 | 1 |
| ACS | 50 | 29 | 13 | 3 | 7 |
| MSKCC | 84 | 61 | 29 | 25 | 3 |

Chassin and Galvin[7] have identified that current problems with quality of health care can be categorized as overuse, underuse, and misuse. The extent of the problem for each category is unknown, but Leape[3] has stated the following estimates:

*Overuse:* 8 to 86 per cent of operations have been found to be unnecessary and have caused substantial avoidable death.

*Underuse:* Quality of care within hospitals is inferior for black patients, uninsured patients, and patients with chronic disease.

*Misuse:* 180,000 people die each year partly as a result of injuries caused by physicians.

By the involvement of our department with physician reimbursement for Caterpillar, Inc., I have experiences that would cause me to add an additional category of quality problem. In addition to overuse, underuse, and misuse, I must add abuse. I would define quality abuse as the documentation of quality without performing quality. Some surgeons seem less intent on performing quality and more intent on documenting or meeting requirements to provide maximal reimbursement. Documentation for reimbursement for removal of skin lesions has now become an art form, with check box forms indicating size of lesions but no gross pathology results to confirm skin lesion size. One dermatopathology laboratory stated that their reporting of gross lesion size was not done if the surgeon requested its omission. Other examples include removal of a skin lesion removed for "irregular borders, elevation and pigment changes" but no specimen even sent to a pathologist, and charges for complex closure for every wound from the excision of a skin lesion, no matter how superficial.

Despite computer software to assist with identifying appropriate charges, funding agencies have difficulty determining inappropriate charges. A common software product used to check appropriateness of charges is called CodeReview. The following examples demonstrate how efforts can avoid scrutiny by CodeReview for those schooled in techniques to maximize charges. To maximize charges for a thyroidec-

## SURGICAL CHECKLIST - GASTRECTOMY

SWOG Study No. 9008 Protocol Step 1

SWOG Pt. No. ☐☐☐☐☐☐ Patient's Name _____ (L,F,M)

Institution / Member _____ S.S. No. ☐☐☐-☐☐-☐☐☐☐

Physician _____ Hospital No. _____

Groups other than SWOG: Group Name/Study No./Pt No. _____ / /

Date of Procedure ☐☐-☐☐-☐☐ (Month, Day, Year)

Ascitic Fluid ☐ None present ☐ Present (ineligible)

### EVALUATION

All of the following structures must be evaluated and all abnormal areas are either to be resected or separately biopsied. Indicate how the structure was evaluated.

**Stomach**
- ☐ No extragastric tumor extension beyond serosa (attached structure)
- ☐ Extragastric extension ------->
  - ☐ Attached structure resected en bloc and tumor bed marked with clips
  - ☐ Extragastric extension not resected (ineligible)

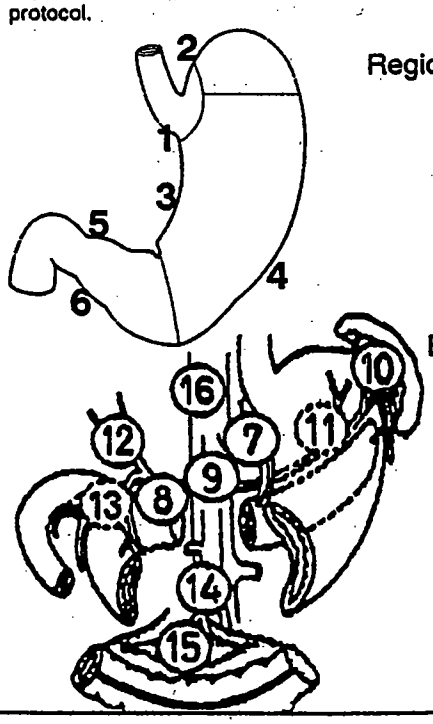
**Liver**
- ☐ Not suspicious for malignancy by palpation
- ☐ Suspicious for malignancy -->
  - ☐ Biopsy done
  - ☐ No biopsy done (ineligible)

**Peritoneum and/or Bowel Serosa**
- ☐ Not suspicious for malignancy
- ☐ Suspicious for malignancy -->
  - ☐ Biopsy done ---------->
    - ☐ No cancer
    - ☐ Biopsy positive (ineligible)
  - ☐ No biopsy done (ineligible)

**Omentum**
- ☐ Not suspicious for malignancy
- ☐ Suspicious for malignancy -->
  - ☐ Biopsied/resected
  - ☐ Not biopsied or residual disease left (ineligible)

**Regional Lymph Nodes**
- ☐ Not suspicious for malignancy
- ☐ Suspicious for malignancy -->
  - ☐ Included in resection specimen
  - ☐ Not resected (ineligible)

Shade the area of resection on the upper drawing. Draw the tumor and note whether the tumor was located on the anterior or posterior wall of the stomach. If information is unknown for any of the listed nodes, then the patient is ineligible for the protocol.




| Regional (perigastric) Nodes | Grossly involved No | Grossly involved Yes | Resected No | Resected Yes |
|---|---|---|---|---|
| 1. Right Paracardial | ☐ | ☐ | ☐ | ☐ |
| 2. Left Paracardial | ☐ | ☐ | ☐ | ☐ |
| 3. Lesser curvature | ☐ | ☐ | ☐ | ☐ |
| 4. Greater curvature | ☐ | ☐ | ☐ | ☐ |
| 5. Suprapyloric | ☐ | ☐ | ☐ | ☐ |
| 6. Infrapyloric | ☐ | ☐ | ☐ | ☐ |
| Other: _____ | ☐ | ☐ | ☐ | ☐ |
| **Extra-perigastric Nodes** | | | | |
| 7. Left gastric artery | ☐ | ☐ | ☐ | ☐ |
| 8. Common hepatic artery | ☐ | ☐ | ☐ | ☐ |
| 9. Celiac artery | ☐ | ☐ | ☐ | ☐ |
| 10. Splenic hilus | ☐ | ☐ | ☐ | ☐ |
| 11. Splenic artery | ☐ | ☐ | ☐ | ☐ |
| 12. Hepatic pedicle | ☐ | ☐ | ☐ | ☐ |
| 13. Retropancreatic | ☐ | ☐ | ☐ | ☐ |
| 14. Mesenteric root | ☐ | ☐ | ☐ | ☐ |
| 15. Middle colic artery | ☐ | ☐ | ☐ | ☐ |
| 16. Para-aortic | ☐ | ☐ | ☐ | ☐ |
| Other: _____ | ☐ | ☐ | ☐ | ☐ |

FIG. 1. Surgical study checklist.

tomy, one simply documents and charges for nerve and muscle testing. This increases the total charge to $4500. Is this quality care or maximizing charges from a payer (Fig. 2)? Another example is a patient with a tubal pregnancy treated at a nonacute stage. The patient also had a small myoma removed laparoscopically during the same procedure. Even CodeReview had problems reducing the charges from the initial bill of $14,950 (Fig. 3).

Because of such quality abuse, excessive controls and requirements from the outside of our profession will be imposed. We will continue to be regulated like an industry and not treated with the respect of a profession. Introduction of the diagnosis-related group (DRG) system for reimbursement was a previous effort to control a system out of control. Can a company such as Caterpillar continue to offer employees health care benefits and pay such outrageous DRG claims from our colleagues? I think they cannot! I believe they will not! The effort to create excessive reimbursements for surgical procedures will result in further obtuse and aberrant reactions from government, funding and other organizations. We are no longer trusted to "do the right thing." External organizations are giving report cards for health plans, medical groups, hospitals, and even individual physicians. Our profession is under attack, and I do not generally see the panic in the eyes of my colleagues. Their focus is on reimbursement and maximizing their effort for their practice, their group, or their institution.

Physicians are now challenged to ensure institutional quality for individual performance and system performance. Examples of nationally publicized failure of medical systems that have produced bad outcomes and obvious poor or no quality include removal of wrong breast, removal of wrong leg, and tenfold dose error with fatal injection of chemotherapy. Unfortunately, although error rates are substantial and many serious injuries occur because of errors, many physicians perceive that these events are isolated and unusual events. Although they will be handled as a disaster in the institution of occurrence, they should be viewed as "near misses" in institutions with no occurrence.

10/05/1999

**CodeReview (R)**
**McKesson HBOC**
**Recommendation Report**

KB ID: 98

Claim ID: CR1 Entered Date: 10/05/1999
Patient ID: PATID2 Date Of Birth: 12/31/1998 Gender: Male Provider ID: MD0001

| Status | Rule | Date of Service | POS | Code | Mod 1 | Mod 2 | Description/Historical Claim Number | Charged Amount | Allowed Amount |
|---|---|---|---|---|---|---|---|---|---|
| A | | 10/01/1999 | 11 | 60220 | | | PARTIAL REMOVAL OF THYROID | $3,150.00 | $1.00 |
| A | | 10/01/1999 | 11 | 99360 | | | PHYSICIAN STANDBY SERVICES | $290.00 | $1.00 |
| Q | C | 10/01/1999 | 11 | 95920 | | | INTRAOP NERVE TEST ADD-ON | $275.00 | $1.00 |
| Q | C | 10/01/1999 | 11 | 95920 | | | INTRAOP NERVE TEST ADD-ON | $275.00 | $1.00 |
| Q | C | 10/01/1999 | 11 | 95920 | | | INTRAOP NERVE TEST ADD-ON | $275.00 | $1.00 |
| A | | 10/01/1999 | 11 | 95867 | | | MUSCLE TEST, HEAD OR NECK | $235.00 | $1.00 |

| Status | Date of Service | RVU | Code | Mod 1 | Mod 2 | Description | Charged Amount |
|---|---|---|---|---|---|---|---|
| A | 10/01/1999 | 18.4 | 60220 | | | PARTIAL REMOVAL OF THYROID | $3,150.00 |
| A | 10/01/1999 | | 99360 | | | PHYSICIAN STANDBY SERVICES | $290.00 |
| Q | 10/01/1999 | | 95920 | | | INTRAOP NERVE TEST ADD-ON | $275.00 |
| Q | 10/01/1999 | | 95920 | | | INTRAOP NERVE TEST ADD-ON | $275.00 |
| Q | 10/01/1999 | | 95920 | | | INTRAOP NERVE TEST ADD-ON | $275.00 |
| A | 10/01/1999 | | 95867 | | | MUSCLE TEST, HEAD OR NECK | $235.00 |

| | | | |
|---|---|---|---|
| A | 10/01/1999 | 60220 | PARTIAL REMOVAL OF THYROID |

ACCEPTED: This code has been accepted with no change.

| | | | |
|---|---|---|---|
| A | 10/01/1999 | 99360 | PHYSICIAN STANDBY SERVICES |

ACCEPTED: This code has been accepted with no change.

| | | | |
|---|---|---|---|
| Q | 10/01/1999 | 95920 | INTRAOP NERVE TEST ADD-ON |

QUESTION: Code 95920 must be used in conjunction with the evoked potential study (92585, 95925-95930), or the motor study (95933-95937).

| | | | |
|---|---|---|---|
| Q | 10/01/1999 | 95920 | INTRAOP NERVE TEST ADD-ON |

QUESTION: Code 95920 must be used in conjunction with the evoked potential study (92585, 95925-95930), or the motor study (95933-95937).

FIG. 2. Bundling of charges assessed by CodeReview did not eliminate charges for "nerve testing."

10/05/1999 KB ID: 98

**CodeReview (R)**
**McKesson HBOC**
**Recommendation Report**

Claim ID: CR1 Entered Date: 10/05/1999
Patient ID: PATID2 Date Of Birth: 12/31/1998 Gender: Male Provider ID: MD0001

| Status | Rule | Date of Service | POS | Code | Mod 1 | Mod 2 | Description/Historical Claim Number | Charged Amount | Allowed Amount |
|---|---|---|---|---|---|---|---|---|---|
| Q | C | 10/01/1999 | 11 | 56309 | | | LAPAROSCOPY; REMOVE MYOMA | $4,500.00 | $1.00 |
| Q | C | 10/01/1999 | 11 | 56352 | | | HYSTEROSCOPY; LYSIS | $3,500.00 | $1.00 |
| D | C | 10/01/1999 | 11 | 56306 | 51 | | LAPAROSCOPY; ASPIRATION | $3,000.00 | $1.00 |
| D | C | 10/01/1999 | 11 | 56304 | 51 | | LAPAROSCOPY; LYSIS | $3,000.00 | $1.00 |
| D | C | 10/01/1999 | 11 | 58120 | | | DILATION AND CURETTAGE (D&C) | $700.00 | $1.00 |
| Q | C | 10/01/1999 | 11 | 58350 | | | REOPEN FALLOPIAN TUBE | $250.00 | $1.00 |

| Status | Date of Service | RVU | Code | Mod 1 | Mod 2 | Description | Charged Amount |
|---|---|---|---|---|---|---|---|
| Q | 10/01/1999 | 21.3 | 56309 | | | LAPAROSCOPY; REMOVE MYOMA | $11,200.00 |
| Q | 10/01/1999 | 9.24 | 56352 | | | HYSTEROSCOPY; LYSIS | $3,500.00 |
| Q | 10/01/1999 | 2.93 | 58350 | | | REOPEN FALLOPIAN TUBE | $250.00 |

| | | | |
|---|---|---|---|
| Q | 10/01/1999 | 56309 | LAPAROSCOPY; REMOVE MYOMA |

QUESTION: This code is specific for females. Review the patient's sex and if necessary the operative note.

| | | | |
|---|---|---|---|
| Q | 10/01/1999 | 56352 | HYSTEROSCOPY; LYSIS |

QUESTION: This code is specific for females. Review the patient's sex and if necessary the operative note.

| | | | |
|---|---|---|---|
| D | 10/01/1999 | 56306 | LAPAROSCOPY; ASPIRATION |

DENIED: This code is part of the more global code 56304.

| | | | |
|---|---|---|---|
| D | 10/01/1999 | 56304 | LAPAROSCOPY; LYSIS |

DENIED: This code is part of the more global code 56309.

| | | | |
|---|---|---|---|
| D | 10/01/1999 | 58120 | DILATION AND CURETTAGE (D&C) |

DENIED: We do not allow for a D&C when performed along with a laparoscopy. The D&C is considered to be incidental.

FIG. 3. Bundled charges remain excessive after CodeReview Reduction.

We must also change the quality of the institutions where we work. I was serving as the Chief of Staff at the Kansas University Medical Center when allegations occurred that our institution was inappropriately delaying or not performing heart transplants for waiting patients on our transplant list. Newspaper articles, fueled with "inside" information, alleged that patients were being mistreated by our "institution." The newspaper article was inaccurate and expressed hyperbole on numerous points. The initial institutional response was a letter to the newspaper indicating the blame toward one individual who was responsible for denying organs for transplant. Since institutions normally monitor results of operations performed, but not operations that are avoided, it could be argued it was not our institutional responsibility to monitor organ refusal. In addition, the quality monitoring for organ procurement and organ utilization is assigned to organ banks by contract. The public and the state did not accept an individual alone should be responsible for this occurrence. The correction of this problem included a change of attitude of our institution, acceptance of responsibility for a system that did not prevent the occurrence, and a plan to prevent such an occurrence in the future. The changes of systems that were made included a plan for the institution to review its organ refusals by a committee, not just one individual. By identifying a system problem and not an individual problem, we were able change the way quality and quality control was viewed by an institution. Medicine is obviously no longer a cottage industry—it is an institutional industry, with demands for standards and mechanisms to prevent systems from poor or bad outcomes.

Are we a profession or have we migrated to the status of a trade? A trade is defined by its production of a product or commodity. A trade has a standard of quality that may be measured by an "inspector" who understands the parameters of those standards. A professional provides something much more personal, intimate and individualized than a product or commodity. The quality of a professional requires assessment by another professional, not an inspector. It is important that we assist funding agencies and institutions to

"screen" for quality measurements of the process. It is important to understand that monitoring the quality of a process is different from measuring the professional quality. Monitoring an "institution's" process of care is different from monitoring the care of another professional. Any individual professional may make an error. We must not allow others to determine the quality of a peer. That should be done by our profession. We must, however, participate in the management of the process of care quality.

Continuous Improvement is a tool of industry to monitor and manage a process or system. This system can and has worked in health care. By leading the Continuous Improvement process, we can ensure that institutional quality management programs correct quality problems related to processes and leave matters of quality of individual professionals to our profession. We must:

1) Recognize that two quality measures exist. One measurement is for measuring process quality, and the other measurement is for professional quality that must not be controlled by any industry.

2) Become leaders in quality and work to improve care processes' performance.

3) Help our institutions select appropriate standards and the monitoring of standards.

4) Help institutions obtain their standards and goals.

5) Participate with payers and create fiscal fairness funding agencies.

6) Never compromise quality that our professional judgment indicates must exist.

Since becoming a member of this organization, I have planned and anticipated attending every annual meeting. About a week before our annual meeting 10 years ago, I received a call that my Mother had sustained a myocardial infarction during a trip in rural Alabama. She had been resuscitated and placed on life support at a small regional hospital. As I knew he would, my good friend Ken Printen provided coverage for my responsibilities at the meeting. I arrived in the intensive care unit of a rural Alabama hospital that would clearly fit the definition of a low-volume institution for care of acute myocardial infarction. My mother recognized me, although she was barely hanging on to life with the aid of life support systems and vasopressor agents. When I agreed with her physician that the vasopressor agents should be discontinued, the nurse in the low-volume intensive care unit was kind and permitted me to stay close by my last parent. I gazed into her eyes until I saw that light and life were no longer reflected. Even though it was 10 years ago, I still ask myself if we did enough. Could a special facility have done better than this low-volume hospital and this rural physician? Then I am reassured on each occasion that her physician knew he was doing the right thing—and so did I. My first encounter with surgical healthcare and Mom's last encounter with health care were of the finest quality. *Outcome measurements alone do not measure quality.* Mom and I did not receive quality care because of the health care industry; we received quality care because of knowledgeable and caring physicians.

Now every year at this annual meeting I have two pleasures: I continue to meet with respected friends and colleagues, and I once again remember my mother and the one meeting I was unable to attend.

Our surgical profession has faced many challenges and survived. Now we face a challenge at the close of the 20th century. The challenge is to document and manage the quality of medical processes as required by our health care industry, as well as give the quality our surgical profession has always required. Quality of care is still measured by the time-honored standards of our profession, but now also by the standards and outcome measurements that are a part of the health care industry. To save our profession we must always insist that outcome measurements alone do not measure quality. Quality is measured by the content of effort for the complaint, the circumstances, the afflicted part, the disease, the procedure, the operation and the patient. I am very proud to be surrounded by colleagues of this Midwestern surgical organization whose purpose and commitment are to maintain the standards and quality of our surgical profession.

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