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President, 2002

**PRESIDENTIAL ADDRESS:**  
***“We Are the Gatekeepers”***

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# **WE ARE THE GATEKEEPERS**

*Claude H. Organ, Jr., M.D.*

## **INTRODUCTION**

*I am pleased to have served as president of the Western Surgical Association (WSA) during the past year. This is for me a seminal honor from my colleagues. The WSA was the first surgical society into which I was elected as a member. During these years, the meetings have been informative and we have developed many warm and endearing friendships. The office of the presidency, for over 100 years, has been occupied by numerous distinguished surgeons. We are proud that the WSA was consulted in 1935 to formulate a plan, which led to the establishment of the American Board of Surgery. Thomas Joyce, of Portland, Ore, represented the WSA.*

During my professional years, I am grateful for the support and encouragement from many individuals whom I would like to briefly recognize: Joseph Holthaus, dean of the Creighton University School of Medicine, Omaha, Neb, who had the courage to appoint me unexpectedly as chairman of the Department of Surgery; Harry McCarthy, a brilliant technician and former member of this society, with whom I had the privilege of many hours of friendship and who never mentioned race to me once during our close association; Earl Connolly, a consummate gentleman and surgeon who was a strong supporter; Drs Charles Wilhmenj and R. S. K. Lim for my research experience and many intellectually stimulating sessions; and Gerald Peskin, a superb surgeon, educator, friend, and colleague.

A special note of appreciation to Margaret Kosiba, with whom I have worked—and many say for—for 28 years. Blessed with a keen intellect and midwestern work ethic, she has been an associate, colleague, and editorial assistant and was constructively involved with most of my professional efforts during the past 25 years.

I owe a deep debt of thanks to my family, and particularly Betty, the infrastructure of our family. They have been supportive of my career. Two of our children are surgeons and one is a child psychiatrist (67% isn't bad). I was the beneficiary of being raised in an intact family and received a splendid education in a segregated high school, accompanied by a stiff dose of discipline, both at home and at school.

During those years, the teacher was never wrong. If you were in trouble at school, you were in double trouble at home. It has been our goal to give our children a better education than we received. From the banks of the Red River of Texas to Vancouver, British Columbia, it has been a rewarding professional journey. I was afforded the opportunity to gradually escape the constricting nature of society during my early and formative years as I watched a cascade of human events that began the transformation of our nation, society, and profession, hopefully for the better. However, we are not, as yet, living in a completed society.

The survivability of general surgery has been intensively analyzed for the past 50 years. With the introduction of each new surgical procedure, special certificate, and in presidential addresses, there is a common theme: the premature demise of general surgery. To paraphrase Mark Antony in Julius Caesar, I do not come to bury general surgery, I come to praise it!

We have been negligent in minding the store. Despite these recurrent gloomy predictions, it is my thesis that we continue to be the gatekeepers for surgical education, research, and patient care. In the words of Al Smith, let's look at the record. Surgery is not a spectator sport.

As Snow<sup>1</sup> has reminded us,

The specialties of surgery, other than general surgery, continue to depend upon the discipline and specialty of general surgery for education, research, and clinical service. The discipline of general surgery remains the unifying force in surgical practice, education, and research upon which all of the specialties in surgery depend.

Who are we? We are the largest surgical specialty group, numbering 41 186, of whom 8008 are surgical residents. Eleven point six percent of the total group and 25% of the residents are female. Less than one half of the general surgery residents are expected to become "general surgeons."<sup>2</sup> In 2001, the average retirement age of board-certified surgeons was 59.5 years. We tend to work slightly more hours per week, spend more time in the hospital, and spend more time in the operating room and less time in the office.

The definition of general surgery is culturally dependent. General surgeons in Germany and Japan continue to maintain collateral interest in specialties considered outside the domain of their US counterparts,

such as urology and orthopedics. The interest of the surgeon and the needs of the community have often determined the scope of practice.

The misconception about general surgeons in modern society as specialists is poorly documented and increasingly misunderstood. Our professional colleagues choose to ignore that we offer seriously ill patients a multisystem preoperative evaluation, mature intraoperative judgment, and a profound sensitivity to and management of postoperative complications and follow-up care. A case for general surgery can be made without downgrading other surgical specialties, most of which we have created and continue to support.

The AMA Council on Long Range Planning and Development, in their study "The Future of General Surgery," predicted in 1989 that the number of general surgeons will increase by just over 6%, and that by the year 2000 our utilization will increase by 16% to 19%.<sup>3</sup> The growth of our aging population affects the demand for our specialty services. Individuals over 65 years of age are 5 times more likely to visit a general surgeon than persons under 15 years of age.

This study concluded that (1) technological advances will provide new opportunities for general surgeons; (2) advances in medical science will alter the practice of general surgeons, as some diseases formerly treated by us are already being treated by medical specialists; (3) as cost containment pressures continue to mount, our surgical venues will continue to shift toward less costly outpatient settings; and finally (4) good surgical judgment is cost-effective health care. While our total practice expenses have been increasing at the same rate as those of other physicians, professional liability expenses are increasing at a faster rate.

## **SURGICAL GATEKEEPERS IN CLINICAL CARE**

We are the true surgical gatekeepers in the clinical management of patient problems. Several scenarios experienced in recent months speak volumes.

**Patient 1.** A 29-year old patient with placenta accreta experiences significant bleeding during a hysterectomy. The specialists summon "the" surgery service in urgent consultation to manage this problem. Sound familiar?

**Patient 2.** "The" surgery service is called in consultation following the insertion by the emergency medicine department of a tube into the

right chest, which traverses the right hemidiaphragm and liver. Sound familiar?

**Patient 3.** During a right nephrectomy in a 70-year-old man, the urologist (specialist?) encounters a laceration of the inferior vena cava resulting in massive bleeding. "The" surgery service receives an urgent call for intraoperative assistance.

**Patient 4.** A 28-year-old man who sustained multiple fractures in a motor vehicular accident is treated by the orthopedic service (specialist?), requiring admission to the intensive care unit (ICU). The case was referred to "the" surgery service because the orthopedic service did not have admitting privileges.

**Patient 5.** The oral surgery service (specialist?) performs a tracheostomy following the management of a Le Forte III fracture requiring admission to the ICU. "The" surgery service was called in consultation because they too did not have SICU admitting privileges.

**Patient 6.** "The" surgery service is called in consultation for a pulsating groin mass 12 hours after a cardiac catheterization by an invasive cardiologist.

These examples I submit are not infrequent, but serve as an entry point to my basic premise. We are victimized by the semantics of a name, which affects our image and pride in what we do as a profession.

What constituted general surgery was not strictly defined by the American Board of Surgery until 1978. With the splintering of surgery, we were thought of as a field of exclusion. In 1978, the Board issued a broad definition of general surgery<sup>4</sup>:

The Board interprets general surgery in a comprehensive, but specific manner, as a discipline having a central core of knowledge embracing anatomy, physiology, metabolism, immunology, nutrition, pathology, wound healing, shock and resuscitation, intensive care and neoplasms which are common to all surgical specialties.

This definition identified 9 primary components of general surgery, which included the alimentary tract; abdomen and its content; breast, skin, and soft tissue; head and neck; vascular system; endocrine system; surgical oncology; comprehensive management of trauma; and complete care of the critically ill patient.

As gatekeepers in clinical surgery, these permissive paradoxes offer additional support of this precept:

- Our traumatologists are permitted, even encouraged, to manage complicated injuries in virtually all parts of the body at night, holidays, and weekends, but not permitted these same privileges for elective procedures under more controlled circumstances during daylight hours. This has recently precipitated a call to establish a specialty of emergency surgery within the American Board of Surgery as outlined by a WSA member, Donald Trunkey, of Portland, in a current issue of the *Journal of Trauma*.<sup>5</sup>
- In many hospitals, as general surgeons we are "permitted" (required?) to take emergency surgery call with broadened surgical privileges as a requirement for staff membership, yet similar privileges are denied during the comfort hours.
- In rural America, we observe well-trained general surgeons called on to repair a ruptured aneurysm, while in urban America they are denied similar elective surgical privileges during the day (an example of geographic, apartheid credentialing).
- Our pediatric surgery colleagues are available to take care of patients up to 19 years of age during the comfort hours. However, at night, holidays, and weekends, their practices are limited to age 12 and under. We are constantly reminded that the renaissance surgeon is of historical interest only. I am a reluctant believer. The pediatric surgeon continues to be the ultimate renaissance surgeon who operates efficiently in every cavity and system of the body.
- And why is heparin so effective from midnight to 7 AM?

Further, the in-house general surgery resident is called on to handle many emergency situations in the absence of the specialty resident (not in-house), ie, perirectal abscess, suprapubic or urethral catheter insertion, SICU calls for specialty patients, epistaxis, and peritonsillar abscess, to name a few. While the general surgery resident is in-house performing their scut work, all too often specialty residents are moonlighting at other hospitals.

We are the primary surgeons for burns, breast diseases, acute abdomen, surgical infections, endocrine disorders, hepatobiliary diseases, trauma, gastrointestinal cancer, surgical critical care,

gastroesophageal reflux disease, splenic disorders, hernia, bariatric procedures, and minimally invasive surgery. In each of these areas, we have been the leaders in their creation and development.

## **THE GATEKEEPERS OF SURGICAL RESEARCH**

As the gatekeepers in surgical research, we have taken on difficult problems, created new techniques, and developed definitive therapies at an unprecedented rate. Albert Einstein has described research as "the straw that stirs the drink in our institution of higher learning."

These research contributions confirm the role our colleagues, both past and present, played in developing cardiopulmonary bypass, prosthetic heart valves, blood vessel graft replacement, hemodialysis access, cardiac pacemakers, hyperalimentation, metabolic response to trauma, cancer chemotherapy, portosystemic shunting, management of the complications of peptic ulcer disease, microendocrine laser surgery, the Fogarty balloon-tip catheter, blood gas measurements, in-dwelling intravenous catheters, the metabolism of anesthetics, joint replacement, minimally invasive surgery, endarterectomy, steroid therapy, and bowel/bladder conduit procedures.

This impressive but not inclusive list should generate pride in our specialty. As specialists, we are too creative to rest on history. The treatment and diagnostic patterns of today were dictated by the research of yesterday. Tomorrow will be no different.

We must continue to be proactive in basic and clinical research, develop new methods of treating diseases, embrace technological change, and not allow ourselves to be excluded from the process. To the young investigator, I would recommend the rules of the legendary James Thompson of Galveston, Tex:<sup>6</sup>

**Rule 1.** The first challenge in research is being part of the right team and being public.

**Rule 2.** Choose questions that are important and models that are simple.

**Rule 3.** The controls are just as important as the experimental group.

**Rule 4.** Statistics help to decide what it real.

**Rule 5.** Research unpublished is, practically speaking, research undone.

**Rule 6.** Obtaining funding is a fine art that must be mastered.

**Rule 7.** The secret is to work hard with enthusiasm!

In today's environment, we are surrounded by machines that have become substitutes for common sense and reason. With increasing frequency, technology is substituted for the surgeon. This is the fault of the surgeon, not of technology. Surgeons have become the high priests of laboratory and radiographic triage, which has diminished our profession as a cognitive discipline. In short, we have become technology addicts. The message (technology) will not be changed, but the role of the messenger (the surgeon) will. Laparoscopic surgery is a transition technology as we progress from the era of open surgery to the next generation of minimally invasive surgery to telepresence, robotic, and image-guided surgery.

We have taken a giant step forward with the introduction of virtual reality surgical simulation. Virtual reality provides the greatest promise in simulation. Heretofore, has the surgeon had permission to fail and to learn from failure? There is no room for failure when training on patients. Simulation will be on patient-specific data, blurring the line between training and preoperative planning, while optimizing and individualizing every surgical procedure on every patient.

## **SURGICAL GATEKEEPERS IN EDUCATION**

General surgery continues to be the effective coordinator of undergraduate surgical teaching, often shouldering this burden alone, not withstanding departmental fragmentation. Are the surgical specialties now prepared to assume the responsibility for training medical students from ground zero? I think not. We continue to provide core surgical training for many specialty residents. We have been the ones who have participated actively in the medical curriculum, although not always successfully. The declining number of medical students applying to surgical specialties is today's burning issue. Numerous forums have been used to discuss and offer solutions for resident work issues. The answers to the work-related and quality-of-life issues are professional, not political, legislative, or legal. We provide rational solutions to these issues.

An unpublished report released by the University of California in December 1988 on resident hours and working conditions was an early effort, and their conclusions are as relevant today as in 1988. The purpose of this document was to (1) examine information on resident hours and working conditions available at that time, (2) review the recommendations of various professional bodies, and (3) make recommendations for residency training at academic medical centers in

California, both private and public. Their report reviewed the causes and consequences of resident fatigue, alternate solutions for alleviating resident fatigue, and the impact of these potential changes.

The concluding recommendations were that each teaching institution should incorporate into its policies and procedures, principles and guidelines pertaining to resident work hours and working conditions, and that residents recognize their complementary obligations to the training program. In a follow-up report, the estimated annual statewide cost of replacing residents with selective practitioners is summarized (Table). Extrapolation of these figures to the year 2002 will be left to your imagination, but by any formula, the cost would be staggering.

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**Estimated Annual Statewide Cost of Replacing Residents With Selected Practitioners\***

Type of Practitioner	Caps on Residents' Working Weeks, h		
	72	80	90
Resident	54	39	26
Nurse practitioner	154	113	75
Physician	259	190	125

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\*Data are for California and expressed as millions of dollars.

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Program directors must develop creative methods of structuring the surgical resident workload to ensure quality graduate medical education and a relevant general surgery product. We should not extend the length of training, but should develop innovative methods to educate surgical residents. Not even the Jesuits are ordaining their candidates at the late ages when our residents are completing their training. While making needed changes, there are certain traditional values that must be preserved.

In lieu of resident research years, why not offer a structured year during which residents spend 3 months each in orthopedics, gynecology, otorhinolaryngology, urology, or neurosurgery? They could develop skills that can be utilized in health maintenance organizations and communities with populations between 10 000 and

20 000. Such an optional year would require clearly defined objectives and not be designed solely to develop operative skills. Our surgical programs are best equipped to make these changes.

To obtain further information on these evolving yet confusing concerns, I solicited opinions from the presidents of major regional societies during the past 10 years. The questionnaire was not designed to be a scientific study. They were requested to answer the following 5 questions:

**Question 1.** *Do our nonsurgical colleagues, patients, medical students, or general surgeons believe we are specialists?* The responses were thoughtful and, as expected, varied, with a wide range of answers. There was a recurring element of denial. Eighty percent of our nonsurgical colleagues consider general surgery a specialty. Only 70% of patients considered general surgeons as specialists, while 85% of medical students and general surgeons themselves believed they were specialists.

**Question 2.** *List reasons for the declining image of general surgery.*

- A declining involvement in the medical school curriculum
- Our image as a noncognitive discipline
- Underpaid, long hours
- Fragmentation into specialty areas limits capability
- The specialty is too diffuse and not clearly defined
- The term general often makes us a dumping ground
- Lifestyle, poor behavior, and arrogance
- It represents a natural progression to specialization
- I do not perceive a declining image (8 responses)
- Poor marketing of our specialty
- The promotion of pseudospecialists, long working hours, no free time, underpaid

**Question 3.** *Why do general surgeons lack pride in their specialty?*

- Poor treatment by our colleagues and the administration
- Increased referrals to other specialties
- Often poor training

- Peer compensation
- The glamour of "super specialties"
- Hospital privileges encourage super specialization
- They don't feel that they are specialists
- Not valued economically, politically, or prestigewise
- Read the report of the American College of Surgeons governors
- No effective response to encroachment
- Overemphasis on outcome and surgical volume

**Question 4.** *List ways in which our image/pride can be improved.*

- Dump egalitarianism and restore the pyramidal system
- Expand the scope of practice
- Improve training
- Change the name (8 responses)
- Do not change the name (6 responses)
- Improve public and medical education about us
- Encourage the American College of Surgeons and others to help with public relations
- Strong and effective public relations effort
- Improve reimbursement
- I doubt that it can be (6 responses)
- Increase presence in medial school curriculum
- We are the last complete physician

**Question 5.** *If you believe a name change is needed, please list your suggestions.*

- The name is fine (18 responses)
- Boarded by the American Board of General Surgery
- Add a specific area of concentration behind general surgery
- Can't think of anything better (4 responses)
- Surgeon instead of general surgeon
- Consultative surgeon

Much of the specialization during the later part of the 20th century represented growth that was more intraoperative than perioperative, more commercial than physiologic, and more transient than enduring.

Of more direct concern is the fragmentation of the patient. Specialization in the operating room is intentionally practiced, whereas in preoperative and postoperative care, there is minimal specialization.

The need for general surgeons has never been more important. Multipurpose clinics, surgical groups, health maintenance organizations, and universities are searching for the broadly based competent general surgeon. General surgeons are important and valuable assets to health care organizations.

So what do we do? (1) We must stop being apologetic for our specialty and cease complaining and pointing fingers at others for our poor image. Simply no more excuses! (2) We must become better role models with our colleagues, students, residents, and hospital personnel. Our professional confidence should not be confused with arrogance. (3) Staying close to our patients, representing their interests, returning their telephone calls, explaining to them our procedures, etc, will help to restore the image of physicians in general and surgeons in particular. (4) Better time management will make us more effective both at work and at home. (5) The prudent and aggressive embracing of technical advancements will serve our profession and our successors well. (6) Specialization: yes; fragmentation: no. Too much attention on a single anatomic or physiological area de-emphasizes the highly integrated and complex nature of the human organism. There is no division of subsystem in any biological preparation that is larger than the original trunk. As Moore<sup>7</sup> has stated,

Sick surgical patients do not oblige their doctors by separating metabolic from tissue pathology states. Their care is always a surgical problem of a truer sense. The whole problem must be solved together, not in sections.

(7) The financial aspects of practicing surgery in the 21st century will not go away; therefore, we must devise educational opportunities for residents to understand the system. The economics of the health care system cannot be ignored. (8) Finally, let us not forget where we came from. We owe a debt of gratitude to the medical school and the residency program, which played major roles in our education. We must not lose sight of where and when we gained our experience and acquired our skills.

William Mayo in 1930 stated,

I sense a pervasive uneasiness, a restlessness, and a concern about the threat of rules and regulations that consume much-needed time. The need for documentation has replaced the need for trust. I hope that along with concern about the risk of losing market shares, we do not lose our profession.

As role models, we must carry with us in our daily lives the admonition of Hippocrates,<sup>8</sup> who stated,

Sometimes give your services for nothing and if there be an opportunity of serving one who is a stranger in financial straits, give full assistance to all such, for where there is love of man, there is also love of the art.

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