

## President's Address

# Ambulatory Surgery

## Its Impact on General Surgical Practice

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**A**MBULATORY SURGERY has emerged as one of the most effective mechanisms in the on-going efforts to reduce costs while delivering high quality surgical care. Performing operations in ambulatory settings is not new. It was employed on a limited scale at the turn of the century,<sup>1</sup> usually as out-patient surgery in hospital based operating room facilities, and it became popular after the 1950s following developments in early ambulation and short hospital stay. It was most frequently used by surgical subspecialists in response to the unavailability of beds for patients in need of observation after diagnostic or therapeutic procedures of short duration. Although initially limited to hospital-based facilities, the economic and logistical advantages associated with Ambulatory Surgery were quickly appreciated, leading to the development and subsequent proliferation of independent free-standing ambulatory surgical facilities, the surgicenters. It is estimated<sup>2</sup> that at present there are 273 free-standing surgicenters in the United States and 560,000 surgical procedures are performed yearly in such facilities. The impetus for this development is such that over 500 surgicenters are expected by 1988.<sup>2</sup> In addition to operations performed in free-standing surgicenters, an unknown but large number of operations are currently performed in hospital-based operating rooms on an outpatient ambulatory basis.

The utilization of ambulatory surgery early on was limited to otolaryngologists, plastic surgeons, gynecologists, and urologists.<sup>3</sup> Over time, reports documenting high quality surgical care with low complica-

tions and significant cost savings became available<sup>3-9</sup> and the spectrum of services broadened. This realization, coupled with technological innovations (GI endoscopy, arthroscopy, lasers, interventional radiology), and the ever-mounting pressures for cost containment have led to the expansion of ambulatory surgery across most surgical specialties. Breast biopsies, arteriograms, laparoscopies, tubal ligations, lens implants, urological procedures, and hernia repairs for patients of all ages are some of the procedures recently added to the list of operations suitable for ambulatory surgery. This pressure for expansion will continue as it is based on proof that the most effective way to reduce health care expenses without sacrificing quality is to keep patients out of hospitals, whenever possible. This approach has been recently adopted by governmental and private health insurance carriers. It is the backbone of cost containment programs by prepaid groups (HMOs), and it features prominently in the competition for health care dollars among health service providers. Pre-admission and pre-procedure authorization and payment of higher fees for same procedures when performed in the office rather than in the hospital operating room has been used by insurance carriers to shift procedures to ambulatory settings and reduce costs. The most recent expression of cost containment through wider utilization of ambulatory surgery is that of the Peer Review organizations (PRO) mandating that certain procedures be performed on an ambulatory surgery basis, if the providers (surgeons and hospital facility) are to be reimbursed at all for their services.

The safety of ambulatory surgery has been well documented in reports of individual practitioners and from large centers. NATOF<sup>3</sup> reported on 13,433 patients undergoing operations in a free-standing ambulatory

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TABLE 1. Ambulatory Surgical Procedures Henry Ford Hospital

	1982	1983	1984
Satellite A *	3279	4070	4587
Satellite B	1369	1609	1762
Main hospital	2053	2636	2708
TOTAL	6728	8315	9057

surgical facility. Most procedures were in the ear, nose and throat, plastic, gynecological, and urological fields. The incidence of infection and hemorrhage was extremely low and only 16 patients had to be hospitalized. Ryan<sup>6</sup> reports 10 per cent complications, mainly urinary retentions, among 53 patients undergoing herniorrhaphy on an ambulatory basis with three admissions for medical reasons. In contrast, 36 per cent of 53 matched hospitalized patients undergoing the same operations developed complications, 30 per cent of them being urinary retentions.

The cost savings realized through wider utilization of ambulatory surgery have also been well documented. Ryan<sup>6</sup> noted 39 per cent reduction in costs for patients undergoing inguinal hernia repair under local anesthesia on an ambulatory surgical basis. Abdu<sup>5</sup> estimates that herniorrhaphies performed on an in-patient basis under general or spinal anesthesia cost five times as much as those performed under local anesthesia on an ambulatory surgery basis. Flanagan<sup>7</sup> estimates that \$400,000,000 a year could be saved if most of the hernias were to be performed under local anesthesia in ambulatory settings. The above estimates are based on costs for hospital-based operating rooms, but further savings may be realized by using free-standing ambulatory surgical facilities. The costs for such facilities can be kept lower, because the tendency to use expensive recovery room facilities and to hospitalize patients is less marked, and the overall savings can be substantial. This was best expressed by Lahti<sup>4</sup> in 1981, who estimated that 25 per cent of all surgical proce-

dures in the United States yearly could be done in free-standing ambulatory surgical centers, giving net savings to the nation of 5 billion dollars. This number, of course, would be higher in 1985 dollars. Therefore, the incentive to develop such facilities away from hospitals-based operating rooms is strong, pitching the hospital administrators against those directing free-standing ambulatory surgical facilities in order to maintain a share in the highly competitive health care market.

These recent developments in the expanded role of ambulatory surgery make it necessary for the surgeons to accept it as an important dimension of our professional activities, and with appropriate refinements and modifications, to incorporate it into our working schedules.

At Henry Ford Hospital, the developments in the Ambulatory Surgical area parallel those in the national scene. The Henry Ford Hospital system operates a tertiary care facility of 960 beds with 22 operating rooms, two major satellites with fully equipped ambulatory surgical facilities, and a number of mini-satellites suitable for office procedures. Over the past 3 years, the number of ambulatory surgical procedures has increased by 33 per cent (Table 1); and, in the main hospital, ambulatory surgical procedures have varied from 22.3 per cent to 33.5 per cent in the first 5 months of 1985. Because of the mix of subspecialty procedures as well as those associated with tertiary care developments, the distribution among various departments and services is fairly constant (Tables 2 and 3).

The expansion of Ambulatory Surgery has made it necessary to address specific issues and concerns, not only from the patient's perspective but also from the point of view of physicians, administrators, nursing, support staffs, and outreach programs, in order to assure safe care and minimize risks. Although such issues may be easy to control in a highly individualized practice setting, in settings with a large number of physicians utilizing one or more facilities and performing large numbers of procedures, it is necessary to set policies and to adhere to protocols, to develop clearly defined mechanisms for successful performance, and to provide appropriate feedback for correction and adjustments. A policy setting group with appropriate representation of users, under the coordination of medical and administrative leadership responds best to this task. Such a group addresses multispecialty issues and concerns, develops mechanisms to deal with specific problems, reviews experiences on an on-going basis, and makes recommendations with long-range implications. Through an established system of periodic feedback, it assures all users of its fairness and objectivity and evokes cooperation and support. Ambulatory Surgery is still evolving; however, certain issues have emerged that are of significance to all involved:

TABLE 2. Ambulatory Surgery Case Loads: January-June, 1985, Henry Ford Hospital, Main Campus

Specialty	Jan	Feb	March	April	May	June
General surgery	72	59	66	77	71	55
ENT	48	59	59	46	74	65
Gynecology	49	52	42	59	40	56
Plastic	32	25	24	28	25	33
Ophthalmology	52	47	52	66	60	44
Orthopedics	24	40	41	40	37	28
Urology	17	14	9	12	11	18

TABLE 3. Ambulatory Surgery Case Loads: January-May, 1985, Henry Ford Hospital

Specialty	Satellite A					Satellite B				
	Jan	Feb	March	April	May	Jan	Feb	March	April	May
General surgery	25	26	15	19	23	26	23	19	18	17
OB-GYN	124	108	123	126	125	49	53	54	33	49
ENT	125	131	147	196	140	37	35	29	27	26
Plastic	20	15	13	18	21	44	40	37	40	37
Ophthalmology	92	84	76	96	108	14	14	17	22	20
Orthopedics	20	27	26	30	28	8	5	4	15	19
Urology	30	30	31	51	42	14	7	6	13	8
TOTAL	436	422	433	536	487	192	177	166	168	176

### 1. Patient Selection and Evaluation

In selecting patients for ambulatory surgery, the physician must assess medical as well as socioeconomic aspects affecting outcome. Co-existing medical illness, length of operation, anticipated morbidity, and potential for complications are some of the medical aspects in the assessment process. Equally important but frequently difficult to assess, are socio-economic factors and their significance. Age, home setting, family support, geographic distance, access to follow-up, and anticipated compliance with instructions are important selection factors for ambulatory surgery procedures. A system, therefore, that assures careful preoperative physical, laboratory, and home care assessment leads to a better selection and minimizes unanticipated complications. A mechanism for written postoperative instructions and a follow-up information process by the physician or a member of the nursing staff enhances the safety of ambulatory surgery and reinforces compliance. Through this coordinated approach, adjustments or change of course become possible with minimal disruption, thus minimizing risks and assuring safety.

### 2. Administrative Aspects

The complexity of administrative responsibilities is well known to all surgeons. In instances where ambulatory surgery is part of a hospital-based facility, most of the administrative concerns are similar to those affecting in-patient surgical care. The main difference is the allocation of space and personnel for pretreatment assessment, processing of documents, holding and recovery areas, and reporting statistical and incident detailing information. In free-standing ambulatory surgical centers, on the other hand, the administrative concerns involve appropriate accreditation, quality assurance issues as they apply to physicians, nursing and support staff and the facility itself, and fiscal integrity. Some of these concerns are effectively addressed through established mechanisms for credentialing of

physicians and nonphysicians, through patient evaluation protocols, including clinical and laboratory requirements, and by developing mechanisms to monitor morbidity, utilization, costs, and other performance aspects. Through such mechanisms, compliance with accreditation requirements is assured and the integrity of the Surgicenter is preserved.

### 3. Educational Concerns

Although expansion of ambulatory surgery under appropriate safeguards is fiscally sound, it removes 25-50 per cent of all surgical cases from the traditional educational settings for future surgeons, nurses, medical students, and other members of the allied health profession. The complexity of inpatient mix, likewise, increases. It is therefore necessary to devise new educational approaches in order to incorporate ambulatory surgery concepts in surgical training programs. Expertise in local or regional anesthesia, operating in settings with limited assistance and consultative resources, the importance of speed without sacrificing quality, and fiscal concerns in the preoperative assessment process are only some of the challenges of this new dimension. Loss of opportunity for treatment assessment, postoperative in-hospital observation, and outcomes are other concerns equally important. Nevertheless, the growth of ambulatory surgery will continue and the educational aspects will have to be appropriately addressed. Assigning residents and students to ambulatory surgical settings under appropriate supervision is a new potential source of clinical and operative experience and a new opportunity to enhance the positive medical, social, and financial role of the ambulatory surgical care.

### 4. Legal Risks

Surgeons and health care facilities are constantly operating under the fear of litigation. Ambulatory surgery settings are such that unanticipated morbidity will add to the already exorbitant legal risks. In retrospec-

tive analysis, all mishaps occurring at home could be viewed as subject to prevention if only the care had been hospital-based or the patient had been hospitalized rather than discharged after completion of treatment. A step-wise mechanism to assure appropriate pretreatment screening, optimal surgical anesthetic and nursing care, testing and documentation of recovery before discharge, a system for written and adequately explained postdischarge instructions, and a follow-up system the day after surgery usually by telephone communication are some of the steps taken in that regard. Such mechanisms are the joint responsibility of physicians, nursing, and administrative personnel. The mechanism is usually developed by the multi-disciplinary policy setting group, but its implementation lies with the administrative structure of the facility.

There must be many more facets of the ambulatory surgery issue that I have not been able to identify. The surgical practice patterns of the members of the Midwest Surgical Association vary, both by reason of training and professional interests and by reason of geography and type of practice. Those practicing in small communities and in groups may be affected differently from those in academic centers and tertiary care institutions. All of us, however, deal with this most recent expansion of an already existing dimension of our profession. In so doing, we must accept the

fact that, under appropriate settings, ambulatory surgery applies to 30-50 per cent of all surgical case loads, it is economically desirable, it is safe, it carries minimal risks when appropriately employed, and it provides flexibility of action both for the patients and for the surgeons. In that regard, ambulatory surgery will be playing an ever-increasing role in our professional practices in the immediate future.

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