OFFICE-BASED ANESTHESIA

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INTRODUCTION

For years, many surgical subspecialists have been performing relatively simple, minimally invasive surgical procedures in the comfort of their offices. Under local anesthesia and with minimal sedation, these procedures have been done safely and cost effectively. Recently, the United States has witnessed a relative explosion in the office surgery environment. According to figures from the American Society of Anesthesiologists (ASA), from 1984 to 1990, the number of surgeries performed in physicians offices more than tripled, from about 400,000 to 1.2 million per year [1]. In the U.S. today offices have about the same market share that freestanding outpatient surgery centers had in 1988. About 8.5% of all surgeries were done in the office in 1994, according to the SMG Marketing Group, Chicago, Illinois [2]. This group also projected that physicians will do more than 3.4 million procedures in their offices during 1996. This compares to 1.7 million procedures done in the office setting in 1992. By the year 2001, SMG estimates that 20% of American surgery will be performed in the physician’s office.

1. TYPES OF SURGERY

Based on data compiled from Medical Data International (MDI), Irvine California, and the Sachs Group, Evanston Illinois, most of the surgery presently being performed in the office involves the skin, musculoskeletal system and gynecology. They found that of an estimated 1.6 million knee arthroscopies performed in 1994, 45,000 (3%) were done in an office. This number is projected to increase in the coming years. Other surgical subspecialties have taken notice and are now looking to identify procedures that may be performed in the office setting.

2. REASONS

A number of reasons have been identified for this rapid growth of office-based surgery. First, the healthcare environment has changed dramatically in the United States over the last decade.
2.1. ECONOMIC REASON

Healthcare reform and economic restraints have mandated more cost-effective approaches to surgical procedures. Over the last 10 years, we have learned a tremendous amount about economics and perioperative care from the growth of freestanding ambulatory surgical centers. The office surgical theater can potentially offer further cost reductions in efforts directed at cost-effective patient care. A cost comparison of laparoscopic inguinal herniorrhaphy done by Shultz [3] showed the cost in their hospital to be $5494.00 as compared to $1533.84 in the surgical office. Done conventionally, the total costs of an inquinal herniorrophy performed in their hospital was $2237.00 versus $894.79 if done in the office. Medicare has started to recognize this potential savings. Certain procedures, such as endoscopies, will now have reduced medicare reimbursement fees if performed in a hospital or ambulatory surgery center instead of an office environment [4]. HMO’s are taking similar positions. Realizing the financial windfall office surgery can provide, HMO Blue in New Jersey began awarding a 15 percent bonus on certain procedures if they are performed outside of the hospital [5].

2.2. TECHNICAL REASONS

A second reason for the growth in office-based surgery relates to the fact that the last ten years have seen the development of new equipment, techniques and pharmaceuticals that better serve the ambulatory surgery arena. One example of this improved technology has been in the growth of «minimally invasive» procedures through laparoscopes thus allowing for faster recovery and reduced hospital time for the patient. On the pharmaceutical side, rapid, short acting anesthetics have been developed in efforts to address the growing need for faster patient recovery and turnover. Using these new advancements, the limits are continually being pushed in efforts to discover the magnitude of what can be safely done in an office surgery suite.

2.3. TIMES EFFICIENT BENEFITS

The convenience and secondary gains that are experienced by the surgeon and the patient have also been strong incentives for the growth of office-based surgery in America. Physicians enjoy the time efficient benefits that the complete office-based practice can provide. Many surgeons feel that the office-based surgical practice can virtually eliminate much of the lost and unproductive time secondary to turnover of operating rooms, patient preparations, and driving between sites. It also affords the surgeon potential financial gains appreciated from facility fee charges for the procedure. In regards to the patient, the cost savings applied to procedures that are paid for directly by the patient (e.g. cosmetic surgery) make the office an attractive alternative. In addition, many offices can offer a more private, less stressful environment for the patient during the perioperative period.

3. PROBLEMS

Among all this excitement related to office-based surgery and anesthesia, there is a growing concern that this recent explosion has occurred without appropriate considerations being given to patient safety. Much of this concern has centered on the administration of anesthetics for surgical procedures in the office. Although newer, short-acting anesthetics can enable physicians to do procedures in their offices that once were reserved for the hospital, these newer products are not void of safety related problems. As Bernard Wetchler, M.D., a recent Past-President of the ASA correctly explained: «Some of these
new drugs appear easier to use than the previous ones. As a result, we can be lulled into a false sense of security» [1].

4. LEGISLATION

4.1. STATE’S LAW

A few U.S. states have now started to address the concerns related to the administration of anesthetics for office surgery procedures. Initially drafted because of increased commercial advertisements promoting cosmetic surgery in offices, the California Assembly Bill 595, Chapter 1276 of the Business and Professions Code, gained significant momentum after the unfortunate death of a child during an office procedure under anesthesia. Spearheaded by Representative Jackie Speier and passed in 1994, this law became effective July 1, 1996. Based on the fact that the California Legislature found that «significant surgeries are being performed in unregulated out-of-hospitals settings» and that «some of these settings may be operating in a manner which is injurious to the public health, welfare, and safety», this legislation was passed «because of concern about variations in quality among outpatient surgery settings». For the purposes of this law, California defines an affected outpatient setting as one in which procedures are performed under anesthesia in doses that have the probability of placing the patient at risk for the loss of their life-preserving protective reflexes. These outpatient surgical settings (including offices) must obtain regulatory oversight through three possible mechanisms:
1. accreditation through an approved accrediting body such as AAAHC, JCAHO, or AAAASF;
2. state licensure as an Outpatient Services Facility; or
3. Medicare certification as an ambulatory surgical center. The Medical Board of California estimates that this law will affect about 2,500 currently unregulated sites. Although clearly directed at bringing the standards of care for the administration of anesthetics in an office up to the standards required for a freestanding ambulatory surgery center, the California Legislature emphasizes that the intent of the law is to «assure that the least costly and effective method of achieving patient safety is required».

Contrary to the success seen in California, New Jersey had been mired in political, self-centered battles in attempts to regulate the administration of anesthetics in the office. Although just recently approved in late 1997, attempts to address these concerns in New Jersey had been actively going on since 1977. The most recent of these attempts that finally gained approval was the creation of the «Surgical and Anesthesia Standards in Physicians Offices» Regulations authored by the New Jersey Board of Medical Examiners. Although more defined and somewhat stronger than the California AB 595 legislature, the Regulations were based on many of the requirements that are already enforced in the «Hospital and Ambulatory Care Regulations» passed in New Jersey in 1989. These Regulations addressed issues related to replacement of obsolete equipment, equipment maintenance requirements, monitoring, PACU standards, and mandatory reporting of all deaths and untoward events. Regulations for physicians offices had met stiff opposition in New Jersey from medical subspecialty lobbyists and legal consultants, who claimed the regulations would force office-based physicians to practice under hospital guidance and control. Prior to the final approval, Dr. Ervin Moss, Executive Medical Director of the New Jersey State Society of Anesthesiologists and a long time supporter of regulations
for the office surgery environment, expressed the frustration of many anesthesiologists in an Anesthesia Patient Safety Foundation Newsletter detailing the long New Jersey struggle.

4.2. THE AMERICAN COLLEGE OF SURGEONS

The American College of Surgeons (ACS) has taken a similar approach as the state of California in addressing the administration of anesthetics in the surgical office. The Second Edition of the «Guidelines for Optimal Office-Based Surgery» was published by the Board of Governors’ Committee on Ambulatory Surgical Care in October 1996. Citing quality of care as the goal in office facilities, the ACS acknowledges that surgical procedures differ only in intensity. Although not regulations, these guidelines clearly differentiate standards for surgical procedures based on anesthetic requirements related to surgical intensity. The ACS defines three classes of office surgical facilities. Class A facilities provide for minor surgical procedures performed under topical, local, or regional anesthesia without preoperative sedation. Excluded are intravenous, spinal, and epidural routes. Class B facilities provide for minor or major surgical procedures performed in conjunction with oral, parental, or intravenous sedation or under analgesic or dissociative drugs. Class C facilities provide for major surgical procedures that require general or regional block anesthesia and support of vital bodily functions. Each class of facility has defined standards related to resuscitation equipment, recovery areas, monitoring equipment, and personnel. The Committee does acknowledge the potential cost-effective aspect of office surgery by adding that cumbersome regulations are not desirable and should be avoided.

CONCLUSION

It has become evident that office based surgery and anesthesia will continue to grow in the United States over the next few years. The ability to provide convenient cost-effective patient care fueled by newer technologies and pharmaceuticals has allowed office-based surgery to provide services that until recently were restricted to a hospital-based practice. Although «limited intensity» surgical procedures performed under topical anesthetic requirements have been done successfully for years in an office environment, consistent regulations need to be established to address this new growth in the office-surgery environment. It is inconsistent and illogical to allow the performance of a procedure in an office without established patient safety regulations when the same procedure performed in a hospital or ambulatory surgery center must conform to established patient safety regulations and accreditation requirements. Whether the regulations directed at hospitals and ambulatory surgery centers need to be relaxed to meet today’s changing clinical practice environment may be open to debate. But to rely on the surgeon and anesthesia provider to meet minimum patient safety standards in an office setting without established regulations and guidelines is naive and has been shown to fail in the past. Up to now, regulations and guidelines based on the specific level of anesthesia required for procedures performed in an office has found limited early acceptance. This appears to be a sound and logical first step. However, much work still lies ahead in efforts to define and establish quality of care regulations in office surgery and anesthesia.
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[4] «Medicare program; revisions to payment policies and adjustments to the relative value units under the physician fee schedule for calendar year 1996». Federal Register 8 Dec. 1995:63124.