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ADVANCES IN ANESTHESIA

The Future of Anesthesia Practice

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Keywords

• Anesthesia practice models • Large-group practice • Academic practice
• Small-group practice • Anesthesia economics

Key points

- Academic anesthesia practice is generally salary based and affords the greatest opportunities for teaching, research, and hospital administrative activities.
- Small-group anesthesia practice is typically partnership based, nimble, and characterized by strong local relationships.
- Large anesthesia groups may be salary or partnership based, offer internal flexibility, and have strong practice management resources.

INTRODUCTION

Among the medical specialties, anesthesiology remains a rewarding career choice with strong future growth potential [1]. The love of applied physiology and anatomy that attracted many to the discipline remains a daily joy, while new science and technology continue to advance the reputation as the medical specialty that has achieved the greatest improvements in patient safety [2,3]. The relatively low overhead and portability of anesthesia practice combined with flexible work hours and a wide variety of practice venues enable individual anesthesiologists to find the ideal work-life balance. On the business side, demand

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for anesthesia services is high, and compensation is correspondingly attractive. Demand is driven by both a steady increase in the number of traditional surgical procedures, growing at 1% to 2% for several decades, as well as the burgeoning need for anesthesia support for non-operating-room (OR) procedures ranging from colonoscopies to highly complex cardiac electrophysiology procedures to invasive radiology cases [4,5]. Non-OR anesthesia represents a huge and elastic need for anesthesiologists, growing as fast as there are personnel to fill it. Both patients and proceduralists recognize the value of anesthesia support in facilitating safe and efficient care and will ask for it whenever possible.

Anesthesiology, like any medical specialty, has its share of challenges. National growth in demand manifests at the local level as daily pressure to provide care at more sites and more hours of service, often with no increase in financial support. Progress in information technology necessitates ongoing investment in systems, software, and expertise. Documentation requirements continue to multiply, driven by external bureaucracy that can be hard to fathom. Payers, including the government, are increasingly demanding evidence of clinical value; this has led to a rapidly burgeoning industry in quality measurement and reporting that can be a challenge for any anesthesia practice of any size or type [6]. Economic pressures on hospital partners can lead to unreasonable demands to increase service or reduce stipends, with increasing threats, often implemented, to seek alternative providers or less expensive coverage models.

A frequent concern of those contemplating a career in anesthesiology is the potential for practice disruption by non-physician-certified registered nurse anesthetists. Although both the American Society of Anesthesiologists and the American Association of Nurse Anesthetists have spent millions of dollars in public advocacy around this competition, a major practice disruption is not likely. The national demand for anesthesia services is outpacing growth in both professions, leading to stable future economics for all. Furthermore, more than half of all anesthetics in the country are performed in an anesthesia care team model, with both anesthesiologists and anesthetists participating to deliver safe and efficient care [7]. Although care of an individual patient during a surgical procedure is a core competence of both groups, the more important skill for the anesthesiologist of the future might be the ability to lead a team, both during an individual surgery and when managing a surgical suite, an ambulatory facility, or an anesthesia practice.

In response to these external pressures, both growth in demand and growth in complexity, several common anesthesia practice models have evolved, creating a variety of career options for anesthesiologists. Although no 2 groups are exactly the same, most will fit within 1 of 3 common models:

- *Academic:* Anesthesiologists are salaried employees, typically of an associated school of medicine, in a multispecialty physician practice or an academic medical center. Research and an educational mission are often implied.
- *Small groups:* The traditional anesthesia private practice, wherein the anesthesiologists are independent business owners providing services to a single hospital, ambulatory surgery center, and/or health care system.

- *Large groups:* Business entities that provide services across multiple hospitals, systems, geographic areas, and sometimes medical specialties. Large groups may be publicly or privately held, and anesthesiologists may be compensated through either salary or, less commonly, partnership arrangements.

These divisions illustrate the dimensions that separate anesthesia practice models: a small or large organization, salary or partnership compensation, a teaching and research mission, and the degree of local autonomy and self-governance. Some careers, like those with the Department of Defense, the Veterans Administration, "clinic model" hospital systems like Mayo or Geisinger, or a health maintenance organization like Kaiser Permanente, fall outside or between the simple models above but share many of the same features.

This article reviews the characteristics of each kind of group, with a focus on the benefits and limitations of each model across the multiple domains of administrative organization, workload, compensation, individual growth opportunities, and likely future evolution. Each section is written by a passionate advocate for that model, but with the goal of providing both strengths and limitations. The authors hope the presentation overall will be a pragmatic guide for students, residents, fellows, and any anesthesiologist contemplating a change of practice.

ACADEMIC ANESTHESIA PRACTICE

Love, courage, and work are the 3 possible sources of meaning in life as explained by Viktor Frankl in his classic work, "Man's Search for Meaning" [8]. Frankl, a neurologist and psychiatrist by training and an Auschwitz concentration camp survivor, wrote in only 9 days an account of his survival in the Nazi death camp. In it he presented his theory (logotherapy) on how individuals find meaning in life. This classic book, originally published in 1946, remains in print today with more than 12 million copies sold in 24 different languages. His tale is sad, horrific, and yet a source of enduring inspiration and insight into the human condition.

Frankl offers that there are but 3 sources from which we may attain meaning in our life: love, courage, and work. To truly *love* another in a full and giving relationship provides a meaning to our existence; human history affirms that love is that thing that inspires, motivates, and compels us forward. *Courage* to choose how to react to any situation thrust upon us, even in the most difficult times of suffering, also provides dignity and meaning to life. In the context of his experiences, Frankl survived by never surrendering that which was uniquely his: the courage to respond to that around him. *Work*, the activity of engaged effort in doing something significant, was the topic that Frankl expounded on at greatest length. To Frankl, work represented the primal need among all of us that validates our moment in time. Significant, meaningful, honest work is something to which we all aspire.

The "art" of medicine, the healing skills and compassion a physician brings to those who suffer, is the kind of work Frankl described. In this article, there

are compelling words about the joys and advantages of working as an anesthesiologist in several different practice situations. All are meaningful work. All provide an individual the opportunity to practice medicine at the cutting edge of anesthesiology, pain management, or critical care. All offer a pathway to a rewarding career. The differences lie in the daily details, but the essential work is similar.

Academic anesthesiology is unique. The academic anesthesiologist has all the same clinical opportunities as his or her colleagues in private practice, and maybe more. Academic medical centers frequently care for complex patients at the extremes of physiology undergoing high-risk, or sometimes even experimental, surgery. In essence, the clinical duties are similar. Academic anesthesiologists are assigned to care for a patient, review the patient's records, greet the patient, establish rapport, and plan an anesthetic. The individual is cared for through all phases of the perioperative journey. Academic anesthesiologists prescribe medications, perform technical procedures, attend at the bedside in the OR, guide enhanced recovery care pathways, and participate in extended care when, and where, necessary. Through their hands, academic anesthesiologists are the sentinel of safety for the patient. There is no distance between the role the academic anesthesiologist plays in clinical patient care and that of colleagues in private practice; in fact, academic anesthesiologists are more likely to engage in collateral activities such as critical care. What makes academic anesthesiology unique is the extension of the work to include the educational and research mission of their specialty.

The academic anesthesiologist contributes to a good much greater than himself or herself. The scholarly pursuits of creating new knowledge (eg, research) and transmission of this knowledge to others (eg, education) extend the work of the academic anesthesiologist a step beyond that of clinical care alone. This participation in scholarship is the fuel that inspires the academic anesthesiologist to work long hours, even after the surgical theater is empty. The participation in scholarship provides an immortal contribution that is sometimes visible to all, as in a publication, while at other times, invisible even to the academic physician. Who among us, though, does not recall our mentors, our teachers, and those from whom we learned the techniques and tricks that have saved another's life? In those moments, sometimes decades after the fact, the student will recall the teacher. Knowing that our actions today will affect a generation of physicians tomorrow is a rich reward for the academic anesthesiologist, a reward that provides deep meaning to the work.

The educational mission

Most academic anesthesiologists are clinician-educators. The educational construct relies on an apprentice-style learning in which the novice physician meets certain competency milestones while they mature across the continuum of residency toward proficiency. The clinician-educator plays a vital role in this educational continuum. On day 1, the experience of the learner is minimal and the guidance and tutelage from the clinician-educator must be near total. As

training progresses, the clinician-educator allows for increasing autonomy, while always maintaining ultimate responsibility. To see a novice physician progress toward competence is one of the great rewards of this work.

This apprentice style learning in a residency program is only 1 component of the educational mission. An academic anesthesiologist is usually expected to deliver lectures, hold seminars, host workshops, and provide other didactic works that complement intraoperative teaching. These products of scholarship may be for an audience of a few (eg, small group discussions) or thousands (eg, meeting presentations). Often, the academic anesthesiologist will produce durable works of scholarship (eg, publications) in this educational domain to include case reports, manuscript reviews, book chapters, books, and original research.

There are 142 residency training programs in the United States, with an estimated 7500 residents in training and an estimated 7000 academic anesthesiologists in this workforce. Of the approximately 46,000 practicing anesthesiologists in the country, about 1 in 7 is engaged in academia [9].

The research mission

Most academic anesthesiologists are not involved in true research. However, many, if not all, support the research mission through their support of the infrastructure that is required for research. This support includes an indirect financial contribution by each faculty physician (eg, via clinical revenue generation) to support unfunded, nascent research in the department. Cleary, an argument for moving to private practice is that, "I can do the same work and make more money!" Yes, in many instances the private practitioner makes more money in terms of cash compensation (although this gap is narrowing), but it is not for the same work. The work is fundamentally different, and the motivations and satisfactions are different. In addition, academic anesthesiologists are typically employed by a medical school, which can often provide noncash compensation benefits (eg, insurance packages, retirement options, or child tuition expenses) at or above those offered by private practice groups.

In 2018, anesthesiology as a specialty received $157.4 million in National Institutes of Health research awards as well as additional external funding from the Department of Defense and other federal agencies. Additional nongovernmental research support is also provided to anesthesiology departments from other agencies and corporations, such as the Anesthesia Patient Safety Foundation, the Foundation for Anesthesia Education and Research, and numerous technological and pharmaceutical companies. Who does the research work, and where does it occur?

The creation of new knowledge is one of the most important and satisfying roles of the academic anesthesiologist. The gains in safety for our patients and the advances in medications we administer today that render a patient unconscious and/or insensate arose through the work of physician researchers and their PhD colleagues. The original observations at the bedside, inspiring the work at the bench, and then the subsequent validation through participation in clinical trials are the product of scientific effort. We should never surrender

this unique and identifying element of being a physician anesthesiologist. Those in academics are the contributing agents of this great purpose. The participation in this work gives life meaning.

The future of academic anesthesiology

The future of academic anesthesiology is bright (Table 1). Although care at the bedside evolves to include a greater degree of participation by nonphysician clinicians, the physician's roles as the formative educator and innovative researcher remain essential. The challenge for academic programs is to learn to economically compete in a changing landscape of professional reimbursement while maintaining lines of funding for education and research. Although at times this funding problem seems insurmountable, it is not. The postulate that our society can abandon the fundamental missions of education and

Table 1
Benefits and risks of practice in an academic department

Pros	Cons
High-quality noncash compensation and benefits (eg, retirement packages, insurance plans, malpractice coverage, dependent tuition assistance)	Potentially lower cash compensation
Opportunity to conduct research	Production pressure to produce nonclinical products (eg, publications, presentations)
Opportunity to train future anesthesiologists	Production pressure to create and deliver educational content to learners
Ability to receive promotions based on clinical and scholarly achievements	Clinical revenue generated by the department ''taxed'' by the medical school to maintain infrastructure
Often given protected nonclinical time to pursue scholarly activity	At times multiple layers of leadership in the institution may lead to slow progress/ change
Typical anesthesia care team clinical care ratios are lower	Areas of greatest anesthesia practice expansion are in non-OR locations, which may be less professionally satisfying
Greater ability to focus on a clinical concentration (eg, pediatric, cardiothoracic, or regional anesthesia)	
Ability to create robust patient safety and quality improvement program infrastructure	
Robust infrastructure for regulatory reporting, usually through the hospital system	
The work contributes to the greater good, not just the bottom line financially	
Most practices have high-quality electronic medical records for anesthesia care record (eg, EPIC, Cerner)	
Well-established HR departments with clear guidelines and procedures for protecting employees	

research is a false one. Clearly, a society may choose to not fund these missions, but such an errant decision is soon unmasked and amended. The appetite we have as a species to improve our current condition will not, in the long run, allow the abandonment of the education and research mission.

As to the individual, there will always be the draw of an academic career. In academic practice, one can pursue a higher ideal. One attains the satisfaction of clinical care, as do our colleagues in private practice, but we also fully participate in the ideals of a higher scholarly pursuit. The creation of knowledge and the dissemination of that knowledge to the next generation are magical. If, as Frankl postulates, life's meaning arises through love, courage, and good work, then choosing the life of an academic anesthesiologist will always be a valuable option. This is good work.

SMALL- TO MEDIUM-SIZED GROUP PARTNERSHIP

Introduction

Small- to medium-sized private practice anesthesiology groups are enduring models for patient care. The dream of "hanging a shingle" and caring for patients is an iconic concept for many physicians. This practice model encompasses the spectrum of anesthesiology care, including traditional operating suite, intensive care unit, obstetrics, and pain management. Sustainable smaller practices are continually evolving and maturing organizationally to meet the needs of modern practice and embrace newer care models.

Benefits

Small- to medium-sized anesthesiology practices deliver a significant proportion of anesthetic care in the United States; the authors estimate that roughly 15% of all cases are done in academic centers, 20% by clinicians in large groups and the remainder by small- to medium-sized private practice groups (defined as <200 anesthesiologists; [Richard P. Dutton, MD MBA, personal communication, 2019], US Anesthesia Partners). The principal focus of private practice anesthesiology groups is providing high-quality patient care in a local area. The patient-physician relationship is strong, and these physicians gain satisfaction from a familiar clinical "family." The private practitioner's work time is without professional distractions, such as the need to perform research or publish. These physicians are dedicated to their practice, have a sense of ownership, and intuitively understand the need to promote their practice's brand.

Financial incentives are a salient factor enticing anesthesiologists into smaller private practices. Although incomes vary, private practitioners are generally well compensated for their services. Beyond the monetary benefits, private practitioners have flexibility over their daily schedule, call schedule, case mix, vacation, and meeting time. Depending on the setting, monetary and nonmonetary benefits can exceed those in academic- or large-practice settings. Smaller practices can also realize economic efficiencies and cost containment not available to larger groups. For example, the ability to outsource operational services, such as payroll, can result in reduction of fixed overhead expense.

Small- to medium-sized private practices are focused on the practice and its individual members. The model is highly flexible and able to meet both the interests of members and the needs of patients. The practice can influence multiple aspects, including sites of service, collaborating surgeons, and specialty areas of practice. In addition, the organization can select a practice model best suited to the members. Options include solo practice, a care team model, or any combination. Practices can choose to affiliate with academic institutions and participate in teaching anesthesiology to medical students, residents, or other types of trainees. Many practices promote specialty care across the spectrum of anesthesia care specialties, including traditional operating suite, intensive care, cardiac, pediatric, obstetric, and pain.

In addition to the practice's influence, individual anesthesiologists also have substantial control over their practice environment. This influence begins from the day an individual enters the organization. Newer members will commonly introduce and drive updated techniques and practices, such as ultrasound-guided regional anesthetic techniques. Individual physicians have the flexibility to plot a course to achieve their professional and financial goals.

Smaller anesthesiology practices can adhere to democratic practice governance. Practice leadership is often informal, and governance is a shared function among the organization's members. Governance models may be horizontally organized, promoting widespread input by practice members. Although the practice may be led by an elected president or governing body, the practicing members largely influence, or in extreme cases control, decisions of the practice. Many organizations seek to implement actions supported by member unanimity. Local, and less formal, governance provides the flexibility to make decisions collaboratively and instill new ideas quickly.

Small- to medium-sized private anesthesiology practices have the benefit of acting primarily for the benefit of their members. In the academic setting, anesthesiology represents 1 department among dozens of vertically integrated service lines. Anesthesiology departments can be negatively impacted by decisions benefiting the entire organization. To the contrary, independent small- and medium-sized anesthesia practices can identify and select practice opportunities aligned with their strategic goals.

Smaller practice physician anesthesiologists work with the surgeons as colleagues with the goals of providing the best, most time-effective and cost-efficient care possible. The ability to formally or informally consult and discuss care options benefits all involved. From the hospital leadership perspective, the ability to promptly address perioperative or anesthesiology-centric concerns is invaluable. In some instances, hospital leadership concerns mirror those of the anesthesiology practice. Leaders in smaller practices can work collaboratively with hospital leadership. Both organizations benefit through mutual understanding of the facility and its needs, and local understanding of the capabilities of the anesthesia group.

Limitations

Although small- to medium-sized anesthesia practice remains a prominent model of care, the legacy is challenged by the intricacies of an evolving medical landscape. As health care becomes more complex, anesthesiology practices have become increasingly driven to expand across sites, absorb other specialties, and grow within their health care system.

Financial incentives are declining for most medical specialties, including anesthesiology. In comparison with smaller practices, academic and large-anesthesiology practices can be sheltered from negative market forces. Many academic practices are vertically integrated across multiple medical specialties. This multispecialty construct provides a holistic approach to patient services and maximizes income across the practice. In addition, academic- and large-anesthesia practices benefit from nationally based third-party payer contracting. Small- to medium-sized practices often lack the network integration and buying power to compete with larger organizations.

Many small- to medium-sized practices are financially dependent on hospital contracts and stipends. This model has, in some settings, allowed smaller practices to maintain financial parity with larger groups. However, many hospitals are eliminating these contracts and remaining stipends or tying them to service and data-reporting requirements, which may be prohibitively onerous or expensive. Hospitals are financially driven to provide operating suite availability for their surgeons or proceduralists. The need for "on-demand" availability can operationally challenge smaller anesthesiology practices. Personnel requirements can evolve around contractually determined first starts, late operating suites, weekend operating suites, or procedural sites to meet the surgeons' preferences or hospital's strategic goals. From the anesthesiology practice perspective, this approach can result in staffing inefficiency, overhiring, limited scheduling flexibility, and reduced individual income.

Production pressure is a concern for many medical specialties, including anesthesiology. Small- to medium-sized anesthesia practices are especially vulnerable. The drive to satisfy contractual metrics and maintain efficiency can lead to an imbalance between production pressure and patient safety. In addition to contractual or financial components, the desire for anesthesiologists to maintain personal relationships with professional colleagues (eg, surgeons) can become an added driver. This pressure may lead to cutting corners on clinical care or safe staffing.

As previously stated, smaller practices can gain economic efficiencies by incrementally outsourcing operational services and reducing fixed overhead. However, increasing practice complexities are challenging this business model. Basic activities of sustaining a practice, such as billing and coding, require trained and experienced administrative staff. Additional personnel may be needed to manage compliance with federal and Joint Commission quality reporting requirements and to manage increased information technology scope and complexity. Although some of these services can be contracted from other businesses, outsourcing can limit control and oversight of basic but critical operational practice components.

Academic and large practices also benefit from formalized departments, such as quality, risk management, and human resources (HR). Beyond the patient benefits, a developed quality department is able to direct best practices and report outcomes on behalf of the practice. The efficacy of practices and clinical outcomes for smaller practices can be more anecdotal in nature. A formal HR department represents another often underdeveloped, but operationally important, issue for smaller anesthesiology practices. This element is especially problematic as practices move from the "small-" and into the "medium-" sized category.

Several factors can compromise effective leadership in small- and medium-sized practices. Unlike large or academic practices, leadership of smaller organizations is commonly decentralized, voluntary, and informal. Effective leaders are educated and engaged. Architecturally, small-group practice culture of horizontal, broad-based governance and decision unanimity can prove inadequate. Decentralized leadership can become ineffective in a complex and dynamic health care environment. Smaller groups may have more difficulty investing the time and training required for leadership development, although access to resources provided by the American Society of Anesthesiologists can help bridge this gap [10].

In comparison with academic or large practice models, small- to medium-sized practice leaders' tenure is variable. Service to these roles can have a negative impact on the individual's practice, personal time, and compensation. The group leader's ability to attend critical meetings or events can be limited by clinical demands. As a result, leaders often choose to schedule early morning, nighttime, and weekend meetings. This practice leads to burnout and an unwillingness to continue in these often minimally or uncompensated roles. Even those willing to serve are limited by their inability to stay current with administrative and regulatory complexities. The imperative of adequately educating and maintaining a leadership group is often difficult to achieve in the face of daily clinical pressures.

Summary: Small Group Practice

Anesthesiology is a rewarding career. Small- to medium-sized private practices have several advantages, including financial incentives, clinical flexibility, and local control (Table 2). Changes in the health care landscape and governance models can have a negative impact on smaller practices. Despite challenges, small- to medium-sized practices have advantages and remain a popular practice model among anesthesiologists. Sustainable smaller practices can develop effective governance, use long-term strategies, and maintain internal resources to compete in an evolving health care marketplace.

LARGE-GROUP PRACTICE

Introduction

Anesthesia group size has increased substantially in the past decade, with multiple acquisitions of small groups by larger, multicity businesses, often fueled by

Table 2
Benefits and risks of practice in a small- to medium-sized anesthesia group

Pros	Cons
Greater income than academic practice; potential for entrepreneurial upside	Greater pressure for clinical productivity: greater time spent in direct patient care
Broad-based, highly flexible governance model in which all members have substantive influence	An architecturally horizontal, or flat, leadership model can be inefficient and preclude a practice's effective decision making on key or controversial issues. Horizontal governance structures can lack corporate memory, skill, and training to operate effectively. Clinical commitments can limit the ability to get leadership to meetings during working hours
Focus on efficiency (eg, on time first starts and OR turnover)	Risk of succumbing to production pressure and diverting focus from patient safety and quality
Individual practice members are well known to surgeons and hospital leadership	Personal relationships can amplify production pressure. Individual or personality differences can have a negative operational impact
Opportunity to conduct research	No compensated nonclinical time to pursue scholarly activity
Opportunity to train future anesthesiologists	Some practice members, surgeons, and the hospital may be culturally averse to training medical students, interns, or residents
Flexible time to participate in professional activities (eg, hospital leadership, anesthesiology societies, advocacy)	Practices are sometimes unwilling to acknowledge the importance and value of promoting nonclinical, professional activities
Ability to outsource operational practice needs (example, billing and coding)	Limited control, need for oversight and risk for errors
High-quality, noncash compensation/benefits (eg, retirement packages, insurance plans, malpractice coverage)	Limited, sometimes inadequately developed, infrastructure for regulatory reporting
Ability to determine practice model (eg, solo, team based)	
Ability to focus on areas of clinical interest (eg, pediatric, cardiothoracic, or regional anesthesia)	

venture capital money [11]. This evolution out of the traditional one-hospital private practice has been driven by the need to work with ever-larger hospital systems and insurance companies, and the financial returns of scaling practice management expenses over a larger group of clinicians. Not all large-group practices are the same, however. Compensation models range from salaried employment to salary with bonuses to salary with equity to true partnerships. The operational side of the business may be similarly varied. Some large anesthesia service corporations are little more than holding companies and purchasing collaboratives for a diverse portfolio of independent local practices. At the

other extreme, some large companies have invested heavily in optimizing information technology, HR management, quality improvement, and driving best clinical practice across multiple sites. Benefits and limitations of large-group practice are a function of their size, the distributed nature of their work, and the degree to which they are investing in the future.

Benefits

Large-group practices, by pooling resources, can make infrastructure investments that are beyond the reach of small groups and beyond the financial capabilities of academic departments. The return on these investments over time can lead to higher income for similar work. The obvious examples are the "back-office" functions of revenue cycle management, HR, payer contracting, and information technology. Anesthesia billing and collection is a complex business, uniquely different from other physician specialties, with a premium on specialty-specific expertise. Academic anesthesia groups often code cases, bill, and collect through a multispecialty physician practice plan or, worse, through the hospital system infrastructure. In the former case, there may be a lack of anesthesia-specific knowledge of optimal coding, billing, and collection strategies, whereas in the latter case, these shortcomings may be compounded by placing greater emphasis on negotiating contracts for hospital services rather than professional fees. Small private practices can purchase revenue cycle management services from anesthesia-specific practice management companies to avoid these pitfalls, but larger groups have the scope and scale to achieve even greater financial efficiency by bringing revenue cycle management in house.

Individual income in large groups can vary widely, depending on the specific model. At the low end, anesthesiologists are on salary (like in academic practices) with a relatively fixed return. At the high end, in partnership-model large groups, hard-working anesthesiologists can reap substantial returns: they profit both from their own work in a highly efficient organization and, if an equity holder, from the overall growth of the business. Their income is diversified across the entire scope of the business, such that loss of a local contract can be mitigated by success somewhere else. Understanding the compensation model and the potential for partnership should be important questions for prospective applicants.

Large groups typically maintain their own internal practice management mechanisms, including the components of revenue cycle management. Insourcing avoids the cost of outsourcing, of course, but has other benefits as well, including marginal gains in coding and collections based on specialty-specific expertise and incentivized focus on anesthesia. Large groups can invest more in the managed-care contracting game as well, by hiring sophisticated and experienced full-time negotiators. Achieving a few dollars more per unit in a given contract may not seem important but can add up rapidly; the largest large-group in America (US Anesthesia Partners) will bill for around 30 million units of anesthesia care in 2019. Some of the financial return is lost to clinicians

because it is claimed by the business owners or financial investors in the large group, different from the incomes of academic programs or small groups, but a share of it remains at the local practice level; the net outcome is usually a gain for the clinician. Furthermore, greater financial returns can power greater investment in information technology, professional practice management services, and new growth, creating a self-sustaining virtuous cycle for sustained success.

HR management is necessary for any business, and an area where having the size to hire professionals can bring benefits to the group. Many desired HR benefits can be obtained at lower per-person costs when buying in quantity; this applies to generic items such as health care, dental insurance, and retirement plans as well as to specialty-specific items, such as malpractice insurance, anesthesia medications (eg, for office-based practice), and equipment. A higher level of HR expertise is additionally beneficial when difficult situations arise: for example, when there is a narcotic diversion event or an allegation of sexual harassment.

Large groups can invest more in comprehensive quality improvement programs. Investment in a quality improvement program has several benefits for members. First, it frees members of the group from having to learn the ever-changing landscape of federal regulatory requirements; this knowledge can be concentrated in just a few experts. Second, resources are available for supportive information technology, such as smartphone apps for quality and charge capture, automated patient satisfaction measurement, and regular feedback to clinicians. Finally, well-integrated large groups become a community of common interest for sharing best practices. A clinical "bright spot," such as a new enhanced recovery program, can be rapidly shared across the larger group. When clinicians at a single site encounter a clinical or practice management challenge, they can easily reach out for advice and resources from partners who have seen and surmounted a similar issue.

Although small groups benefit from close personal relationships among the partners, and can therefore make important decisions by consensus, large groups typically require more formal leadership structures. Defined local governance, with elected leadership and established term limits, mitigates the impact of idiosyncratic or tyrannical individuals, something that can warp the experience in small and academic groups. Large groups can invest in formal leadership training for their talented members; many also develop and promulgate career ladders that show new hires a clear pathway of promotion opportunities over time. In a climate where anesthesiology is a popular career, and is attracting the brightest and most ambitious medical students, this ability to promote leadership and career advancement opportunities is an important differentiator.

Large groups also have the ability to pool resources to increase their influence on the profession as a whole. Influence includes support for individuals in state and national leadership positions (eg, with the American Society of Anesthesiologists), support for participation with the American Board of

Anesthesiology, support for those in hospital leadership positions, and even support for political candidates. Filling these roles will have an influence on the future of the group itself, but also on the profession of anesthesiology. Because this kind of activity requires time out of the OR, large groups are better positioned to absorb the necessary loss of clinical revenue from individual leaders. Consistent with the other advantages of large-scale business, large anesthesia practices can devote more time, money, and expertise to state and national advocacy on key legislative issues. One of the exciting features of a large-group practice is the ability to positively influence the future, rather than just accept it as it arrives.

Limitations

There are limitations to practice in a large-group setting. Most important of these is loss of individual identity and autonomy at the local level. No one desires existence as just another cog in the machine, and no one wants Big Brother telling them how to practice. Assaying the internal culture of the group is thus a critical exercise for the aspiring member. Does the group really benefit from its size? Does it share a common vision, or is it just an amalgamation of diverse practices? Are individual clinicians treated like owners and partners or replaceable widgets? Who controls the care of patients? Are clinical decisions driven by local experts or by far-off businesspeople? Do clinicians value the resources they receive from the greater corporation, or is this benefit outweighed by the burden of increased bureaucracy?

As in private practice in general, large groups place a strong emphasis on clinical productivity. Potential hires should inquire carefully about the time and amount of work that will be required and should generally favor large groups that offer flexibility to meet their dynamic needs: premium income opportunities should be there for those who want to work extra hard, whereas arrangements for part-time and shared partnership should be there for those with family commitments or other external needs. A large group can also offer the flexibility to move geographically without having to start a career over.

The potential employee or partner should assess the motivation of anesthesiologists in the group. Are they engaged in making the practice better, or are they "locker-slammers" who just want to put in their 40 hours and go home? Small groups and academic practices may have an easier time building the right kind of engaged culture. Large groups can achieve this but face additional hurdles. One such hurdle is the potential conflict between the goals of the business (to return money to shareholders) and the goals of the individual (to provide excellent patient care in a stable long-term practice). Partnership model large groups have an easier time with this than publicly traded companies, but short-term financial goals may still trump long-term improvement. Another diversion of focus arises in the large anesthesia companies that include multiple other medical specialties. Are corporate decisions being made that favor anesthesiologists, or are they an afterthought behind emergency medicine or hospitalists or others?

Table 3
Benefits and risks of practice in a large, multisite anesthesia group

Pros	Cons
Greater income than academic practice; potential for entrepreneurial upside (depending on practice model)	Greater pressure for clinical productivity: greater time spent in direct patient care
Greater influence in the profession and greater external advocacy	Bureaucratic tendencies: slow to innovate, especially at the local level
More sophisticated infrastructure for revenue cycle management	Loss of motivation in salaried physicians with defined hours
More sophisticated infrastructure for regulatory reporting	Lack of alignment between business goals and patient care goals
Increased purchasing power for liability insurance, supplies, and HR benefits	Lack of single-specialty professional focus in multispecialty groups
Ability to share clinical information internally	Decreased local influence and focus if decisions are removed to a national structure
Ability to offer internal leadership training or sponsor external education	Lack of local control; economics may be harmed by events at distant sites
Better established and more transparent practice governance; less personality-based tyranny	
Clearly defined expectations at hiring; defined process for onboarding and career advancement	
Diversification or practice-based economic risk across multiple markets	
At larger scale can hire professional leadership for business functions: HR, billing and collection, contract negotiation, legal, and so forth	
Ability to scale across multiple specialties	

Summary: Large Group Practice

Large-group anesthesia practice has much to recommend it in terms of long-term stability, opportunities for personal growth, and financial returns; however, not all large anesthesia practices are the same. Table 3 summarizes the key benefits and limitations of this model of practice.

SUMMARY

Anesthesiology is a vibrant specialty with a bright future. Multiple practice models are available, distinguished by financial returns, entrepreneurial risk, governance structure, nonclinical support, and personal mission. The graduating resident or midcareer anesthesiologist contemplating a change of practice should consider the benefits and limitations of each model across multiple domains before choosing the model that will best advance their desired career.

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