Career Options in Colon and Rectal Surgery

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ABSTRACT

As the field of colon and rectal surgery has expanded and diversified, so has the multitude of opportunities available to the prospective colon and rectal surgery graduate. Although this may initially appear exciting, these decisions may eventually become daunting and even paralyzing. However, prior to making a decision, candidates must first make an honest assessment of their goals, abilities, and priorities. This article briefly outlines some of these challenging choices and helps lay the groundwork for a successful decision process.

KEYWORDS: Careers, surgery, medicine, academic

Objectives: Upon completion of this article, the reader should be familiar with the global career opportunities available in colon and rectal surgery.

The field of medicine encompasses a wide variety of specialties, and each specialty can be pursued in a variety of geographic and practice settings. Choosing a career specialty may be difficult, and each individual arrives at his or her decision in a different manner. For some, the process is as simple as following in the footsteps of a parent-physician or a mentor. For others, the choice is more a matter of exclusion of unappealing specialties. Still others actively select a field based on specific criteria such as anticipated scope of practice, anticipated need for the specialty, geographic preference, age and type of patients, prestige, lifestyle, or income. The decision is generally influenced by one's personality, aptitude, and experiences, both good and bad, on clinical rotations in medical school.

Individuals who choose surgery often cite the appeal of a career that combines management of a broad spectrum of conditions with the almost immediate gratification that arises from one's ability to intervene directly to resolve a surgical condition. The ability to establish a diagnosis and provide seamless preoperative, operative, and postoperative care is highly rewarding and usually

part of what motivates surgeons. Some enjoy the technical challenges, some the excitement and drama of treating major trauma victims, and others are motivated by the opportunity to apply pathophysiologic principles to restore the health of critically ill patients. Other trainees are attracted to basic, translational, or clinical research, and some seek to improve technology or develop new medical devices. However, many individuals choose a career in surgery without really considering the personal, academic, clinical, and financial options and implications.

What draws general surgery residents to the field of colon and rectal surgery? Recent applicants to our training program characterized the specialty with the following terms: "intellectually stimulating," "great diversity," "technical complexity," and "opportunities for clinical and basic research." Many cited the perceived "friendly and collegial" atmosphere of the specialty as a reason to pursue training in colon and rectal surgery. Observations that colon and rectal surgeons "took pride in caring for their patients" and did so with a level of expertise that other surgeons in their training programs did not possess were common.

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There is a well-defined and highly structured path for completing medical school and procuring a competitive residency and fellowship. In contrast, little structured guidance is available for the career and life-defining choices that one must make at the completion of fellowship training. Although the decision for some is simple ("pure" private practice, "pure" academics), for many the choice reflects a desire to create a balance between a satisfying and fulfilling clinical practice, financial gain, quality of life, academic achievement, and national and international exposure. Careers in colon and rectal surgery range in scope from pure colorectal surgery (and in some cases to limited parts of colorectal surgery such as colorectal cancer or proctology) to varying degrees of general surgery and/or trauma cross-coverage to a largely general surgery practice with a colorectal "special interest." Practice setting is another important part of the equation that defines professional and personal life. Does one look toward a career in private practice, at a university, in a multispecialty clinic, or in a hybrid setting? This review explores the challenges facing today's newly trained colon and rectal surgeons as they navigate the multitude of opportunities available in this exciting field.

TYPES OF PRACTICE

In general, there are three specific practice types to choose from, each with its inherent advantages and disadvantages. Other articles in this issue of *Clinics* provide additional details and perspectives. In this section, we consider general characteristics of private practice, academic practice, and multispecialty clinic. A caveat: our observations are generalizations, and each career opportunity must be viewed critically to determine its specific features that might make the job appropriate for a specific individual. Perhaps the most important advice we can give a young surgeon seeking a career opportunity is to "know thyself." One must honestly assess one's own capabilities, motivations, and life priorities including professional, personal, and family needs. Our second important advice is to choose associates and practice environment with care. Irrespective of practice setting, medical judgment, surgical skill, integrity, and professionalism are all important components of a successful working relationship and a satisfying career. Finally, regardless of the type of practice selected, the recent trainee or new employee will be required to sign a binding contract that will have implications for salary, benefits, lifestyle, professional advancement (both academic and practice partnership), and mobility. As described in the article on contracts in this issue, this important document is negotiable and requires careful legal review before signing.

Private Practice

Private practice, especially solo practice, offers the greatest degree of independence of the three major types of medical practice settings. Some physicians are driven to make their own business and medical decisions and do not want to have others "interfere" with how they want to run their practice. The ability to be in charge and set the standards and processes to individual specifications is appealing. However, the need to build a large referral practice can come at the cost of personal and family life, particularly if one chooses to practice alone. The individual must recognize that independence is accompanied by responsibility and financial risk. If one fails, there is no one to blame and certainly no one to come to the rescue. Furthermore, no surgeon can be truly independent in today's medical world. Hospitals have rules that must be followed, and payors have contracts and expectations for performance that must be met.

For a recent graduate, the prospect of entering private practice either alone or in a group involves multiple, frequently daunting, decisions. Most physicians have little or no training in the business aspects of running a practice, so due diligence is advised. Prospective applicants often have to consider whether to join a multi- versus single specialty practice or whether to go solo. If one joins an existing group practice, other issues such as track to partnership, subsequent buy-in or buy-out, expected income, expected call schedule ($\pm$ general surgery coverage), and location must be considered. Some may consider the option of purchasing an existing practice. Although this may be attractive because of the preexisting pool of patients, there are pitfalls. First, many of these patients have had their definitive episode of care (for example, a colon resection for cancer), and any additional contact may be limited to routine follow-up or cancer surveillance or screening. In addition, a majority of these patients have built a rapport with their original surgeon; continued allegiance to the practice in the absence of that individual surgeon is not guaranteed. Some patients may just not be comfortable with a new physician fresh out of fellowship.

The scope of the practice to join is an important variable to consider. It may seem attractive in terms of lifestyle to choose a practice limited to anorectal surgery or endoscopy, but doing so may limit future professional opportunities and job prospects. Hard-gained skills from residency and fellowship are easily lost if not maintained in practice. It is important to decide early whether to continue practicing general surgery. Although this may seem a logical aid to building one's practice, it may ultimately be counterproductive by impeding the individuals' recognition as a specialist. If one gains a reputation as an excellent general surgeon who also does colorectal surgery, it may become difficult to restrict the practice exclusively to colorectal surgery in the future. Also, many have found it is easier to become recognized

as the expert in colorectal disease if specialty status is established from the outset, thus distinguishing oneself from the local general surgeons.

In private practice, one's income is usually in some way proportional to monetary production. However, individual practices apportion money differently. Overhead costs and revenues are handled variably. Some practices evenly split all income. Others pay based exclusively upon production. Many practices equally split a proportion of all proceeds and divide the remainder based upon production. For example, 75% of one's income may be divided equally among all partners, while 25% is apportioned based upon individual billing. This approach rewards those who worked harder and provides incentives for additional production. Finally, some practices award extra pay for senior partners or founding members of the group. It is important that all such matters be openly discussed, understood, and formalized in an employment agreement or contract. Specific issues include the starting salary, anticipated future salary, track to partnership (if joining a group practice) or time allotment for covering one's own income, management of overhead, decision-making processes, and call schedule obligations including cross-coverage for general surgery (if any). Other important aspects of the contract include such things as stock purchase agreement, retirement plans and their potential mobility, accounts receivable, and educational funds. Furthermore, some groups have additional avenues of income as a result of investments made, either alone or jointly, in endoscopy, surgery, or pelvic floor centers.

Finally, there are groups of practice throughout the country that have interests in academia. For instance, Colon and Rectal Surgery Associates, Ltd. is a single-specialty, private practice that has been the focal point of the colorectal surgery residency training program at the University of Minnesota for decades. The partners have adjunct appointments at the University of Minnesota, but the private practice is financially independent of the university. With the colorectal surgeons at the university, they train residents, are involved in research (through the university, industry, and independently), and are active members of the American Society of Colon and Rectal Surgeons and other surgical societies. The practice commitment to the academic mission of training colorectal residents and doing research is significant and, as a result, the individual income of the partners is on average lower in comparison with other private practice groups. However, this type of practice does offer the opportunity to participate actively in research and teaching while maintaining much of the independence of a private practice.

Academic Practice

For many young surgeons considering career options, the exciting academic environment of a major teaching or

research university is an ideal practice setting in which to achieve their goals. The interaction with medical students, surgical residents, colorectal fellows, and researchers of all disciplines is both challenging and stimulating. Typically, major research and teaching institutions serve their communities as tertiary and quaternary referral centers and, as such, attract patients with complex or poorly understood problems. For some surgeons, this is the ideal mix of patients. Despite reluctance for many years, many academic institutions have now established or are seeking to establish sections or divisions of colon and rectal surgery. Institutions are recruiting junior faculty who have completed a colon and rectal surgery residency at the instructor or assistant professor level. The opportunity for an academic career in colon and rectal surgery is more open than ever. On the other hand, the combination of teaching, clinical practice, and the need to be productive in the clinical, translational, or basic science research arena presents a daunting challenge.

It is important to understand the academic "tracks" available at different institutions. Typically, the tracks vary by degree of emphasis placed on care of patients, teaching, clinical research, translational research, and basic research. Some tracks lead to tenure and others do not. The terminology to describe these tracks varies widely from institution to institution, and one should understand the system being used before committing to a position. Common terms include adjunct, clinical or clinical scholar, and tenure track. Typically, most academic appointments for full-time faculty are made at the assistant professor level (some may start with an appointment as an instructor). Promotions to associate professor and ultimately professor are based on achievement of specific criteria that are generally available from the institution.

Once the candidate has decided on an academic career, it is advisable to search for an institution that provides realistic support for academic achievement. If one decides to pursue a research-oriented, tenure track appointment in colon and rectal surgery, the institution should offer protected research time of at least 20 to 50% for a period of several years. The institution should also provide a research mentor, a supportive research infrastructure, and a clinical mentor for advice and assistance. Regardless of one's research focus, it is not realistic to initiate a successful academic research career without adequate protected time. In many instances, junior faculty will be provided with protected time for a set contract period (typically 3 years). When that period is up, the individual is expected to have generated adequate grant support to pay for the protected time. If there is no grant support, individuals must often increase their clinical load to support their salary. A vicious circle can ensue: no grant, more clinical work, less time to do research, less chance of getting a grant. In many institutions, faculty

appointments can be coupled with support to obtain needed additional training in biostatistics, specific research methodologies, and clinical research techniques. Ideally, there will be other researchers in the institution who can serve as collaborators and team members to help one advance in one's research career. Potential collaborators and mentors should be interviewed to understand in detail the resources available for advancement. An effective clinical trials and research office with nurses and protocol writers can be invaluable.

Although it is often difficult to choose a specific area of interest fresh out of fellowship, it is important to find an area of major scientific focus early in one's academic career. Having a specific area of focus allows one to become truly expert in a given area. This expertise, in turn, optimizes the individual's chances for funding and academic success. Choosing someone with a track record in academic surgery who has a proven record of obtaining research grants, preferably in a parallel arena, will help to ensure success.

It is important to realize that success in the academic arena is defined differently from that of traditional clinical practice. Depending on the track of one's academic appointment, success may be measured primarily in terms of academic production: publications, presentations at national meetings, involvement in professional societies at the leadership level, and development of clinical programs and research protocols. For many departments, the most important measure of academic success is the ability to obtain grants, especially extramural grants. Involvement in and excellence at teaching is another important component of academic success. However, educational effort is not always rewarded commensurately with research success.

Successfully competing for grants is difficult. Usually one must "start small" and work the way up the granting ladder. The easiest grants to obtain are generally intramural start-up grants or small projects with the pharmaceutical or medical device industry. Many regional medical societies and professional societies fund research, and some direct funding specifically toward young investigators. For the colorectal surgeon, an obvious potential granting source is the Research Foundation of the American Society of Colon and Rectal Surgeons. Other professional societies that provide research grants include the Society for Surgery of the Alimentary Tract (SSAT), Society of American Gastrointestinal and Endoscopic Surgeons (SAGES), American Gastroenterological Association (AGA), and Society of Surgical Oncology (SSO). Further details can be obtained at the websites of the individual societies. The hardest funding to obtain, and the most highly valued by most academic institutions, is from the National Institutes of Health (NIH) or other federal agencies. NIH offers a wide variety of grants, each with specific targets. For example, K-series grants are

career development awards. These include K01 (mentored research scientist), K08 (mentored clinical scientist), and K23 (mentored patient-oriented research career development) grants. Many consider the most coveted NIH grant to be an R01. R01 grants are designed to support a "discrete, specified, circumscribed project to be performed by the named investigator(s) in an area representing the investigator's specific interest and competencies, based on the mission of the NIH." In practice, these grants generally require that the applicant have a successful track record of related research. Institutional support and experienced coinvestigators are important components of a successful R01 application. Although basic science laboratory-based research has traditionally dominated funding, the NIH is now following a new "road map" to increase funding for translational and clinical researchers.

Clinic Practice

For some young surgeons, the opportunity to practice in a large clinic setting offers the best way to achieve their career goals. Some suggest that a large, multidisciplinary clinic environment can provide the best of the academic and private practice worlds. Surgical volumes tend to be high, and there is often a steady flow of patients needing surgery referred from the gastroenterology practices within the institution. Conversely, some surgeons object to the "corporate" decision making that may characterize some such institutions, and others prefer a more personal, low-overhead, less hectic practice pace. Major clinics place substantial value on the pursuit of research, particularly clinical research. Although expectations for publishing or obtaining grant support are less well defined than in a pure academic setting, substantial protected time may be more difficult or even impossible to come by. Finally, many clinic jobs often include appointments to the clinical or permanent faculty of an affiliated medical school.

The competition for clinic positions is often intense, particularly in institutions with substantial national and international reputations. Such institutions have far-reaching financial resources and are often recognized as clinical centers of excellence. Many have developed and maintained large clinical databases in areas such as inflammatory bowel disease and cancer. These databases greatly facilitate clinical research. In addition, the high case volumes seen at these clinics permit development of special expertise in such areas as rectal cancer, inflammatory bowel disease, and laparoscopy. Finally, because of their superb reputations, many of these centers attract research fellows in addition to their clinical trainees. These fellows, in addition to being helpful research collaborators, provide additional opportunities for teaching and, if they are from overseas, cultural exchange.

CONCLUSION

Colorectal surgery practice occurs in a wide variety of settings, and choosing the optimal practice involves a multifactorial decision process. Candidates must first make an honest assessment of their goals and priorities. Factors to consider include the following: professional goals, abilities and training, lifestyle, family or personal needs, geographic location, opportunities for gaining professional recognition, opportunities for clinical or

basic research, teaching, and financial reward. Additional details and perspectives are provided in this issue of *Clinics*. Once one's aspirations and needs are clearly defined, decisions regarding the exact practice setting begin to fall into place.

DISCLOSURE

The authors have no conflicts to disclose with respect to this article.