

# From Transition to Practice to Mastery in General Surgery

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In 2014, the American College of Surgeons (ACS) launched an ambitious venture, the Transition to Practice (TTP) Program in General Surgery, which was developed for two primary reasons: the annual survey of the ACS Board of Governors consistently listed concerns about “preparedness for practice” as an issue; and although nearly 80 percent of general surgery residents completing training pursued a specialty fellowship, no formal mechanism was in place for those individuals pursuing a broad-based general surgery career to achieve additional



experience and mentoring before entering practice. While oversight of graduate surgical training has not been within the purview of the ACS for at least a half-century, the College leadership strongly asserts that the organization needs to provide an opportunity for graduating residents completing training to acquire additional experience with guidance from senior mentors before entering practice.

The leaders of the TTP initiative recognized the fact that many graduating surgeons could practice independently without additional training. At the same time, these leaders also sought to develop a program for graduating general surgery residents with a desire for advanced training in broad-based general surgery, and for young surgeons who could benefit from an individually tailored mentoring experience in general surgery to acquire additional skills and enhance their confidence.

## Table 1. ACS TTP Steering Committee

J. David Richardson, MD, FACS, Chair

L.D. Britt, MD, MPH, DSc(Hon), FACS, FCCM, FRCSEng(Hon), FRCSEd(Hon), FWACS(Hon), FRCSI(Hon), FCS(SA)(Hon), FRCSGlasg(Hon)

Brooke M. Buckley, MD, FACS

R. Phillip Burns, MD, FACS

William G. Cioffi, Jr., MD, FACS

Thomas H. Cogbill, MD, FACS

E. Christopher Ellison, MD, FACS

Julie A. Freischlag, MD, FACS, FRCSEd(Hon)

David B. Hoyt, MD, FACS

John G. Hunter, MD, FACS, FRCSEd(Hon)

Frank R. Lewis, Jr., MD, FACS

Mark A. Malangoni, MD, FACS

Don K. Nakayama, MD, MBA, FACS

Ajit K. Sachdeva, MD, FACS, FRCSC

Mohsen M. Shabahang, MD, PhD, FACS

Beth H. Sutton, MD, FACS

## **Development of the TTP Program**

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A TTP Steering Committee was formed to develop a model and processes that offered the opportunity for acquiring a year of additional general surgical experience under the guidance of mentors (see Table 1). Although this type of program may appear similar to a fellowship, there were several distinctions. The goal of the TTP Program was a refinement of the experience leading to independent practice within the year of mentorship rather than the acquisition of new knowledge. In academic settings, fellows were often subject to strict duty-hour restrictions, while some nonacademic institutions did not have a category of practitioners known as fellows. With the development of the TTP Program, the Steering Committee decided to emphasize the evolution of the fellow from training to acquisition of experience-based knowledge.

The elements of the TTP Program are simple but effective. The participating institution must appoint an experienced mentor or senior surgeon to direct the program, as well as additional interested surgeons who can provide a breadth and depth of experience. The senior surgeon must be willing and able to conduct an intake assessment of the Junior Associate's abilities and plan a program that meets their specific needs. Feedback should be shared quarterly and at the completion of the year.

TTP Associates were asked to maintain a log of the cases performed. A special feature of the TTP Program is that it allows flexibility to meet the mentees' needs, as opposed to a residency experience, which often includes tightly structured rotations and is generally

focused on the institution's needs.

Several elements, in addition to having a committed program leader, are essential for TTP Programs to be successful. Because these programs are not accredited by the Accreditation Council for Graduate Medical Education, traditional funding from federal sources is unavailable; therefore, funding must be provided through another source (usually the institution). If the institution has a residency program, the TTP Program must not detract from the residents' experiences. The institution needs to have excess surgical capacity sufficient for participation by the Junior Associate.

In addition to the opportunity for mentorship, young surgeons in this program are embedded in a system where practice management skills may be acquired. Senior consultation is available for difficult situations, complex cases, or diagnostic dilemmas.

It is important to note that the program is not designed to address certain objectives. For example, the program cannot meet the needs of residents who received inadequate training during their residency. Furthermore, the program is aimed at individuals desirous of practicing general surgery and not seeking preparation for further fellowship training. Finally, this program is not designed to be a source of inexpensive labor or to have an individual available to take call.

## **Approval process and reasons for participation**

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The TTP Steering Committee and the ACS Division of Education developed a relatively simple application process for this program, which focuses on the goals and objectives outlined in this article. An extensive interview between the program director and the TTP Steering Committee Chair is conducted to ensure the essential elements of the program are in place. Once approval is granted, the program may begin recruiting Junior Associates. In this regard, the College serves as a clearinghouse and source of information, and recruitment, hiring, and credentialing occur under the purview of the approved site (as it would be for any new hire).

TTP Program sites have been chosen to participate for several reasons. Some were former teaching institutions, but their residency programs were eliminated with duty-hour restrictions; many surgeons had enjoyed the interactions with residents, as well as the opportunity to mentor young surgeons. In other cases, certain health care systems had an interest in being progressive, specifically regarding residency training, while other program participants believed this program provided an opportunity to vet potential partners or members of their general surgery staff.

## **Early results of the program**

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As of June 30, 51 young surgeons have completed the program. The feedback from participants has been uniformly positive, and at least 15 young surgeons have been hired by the institutions where they spent their transition year. At one-year follow-up, all the young surgeons were practicing general surgery. The average number of cases performed by program participants during the year was 354, with a range of 198 to 620. In the instance with the large numbers of cases, the transitioning surgeon was interested in and completed many endoscopic cases. The variety of cases was broad and typical for a diverse general surgery practice.

The experiences at three accredited institutions are described in the following paragraphs.

### **The Anne Arundel Medical Center experience**

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The TTP Program is a valuable tool in the surgical training toolbox, according to Brooke M. Buckley, MD, FACS, co-author of this article and TTP Program director, Anne Arundel Medical Center, Annapolis, MD. Whereas this program faces many challenges in terms of implementation and practice, the opportunity to mentor surgical trainees in this setting is invaluable. In the words of the program's first TTP Associate, Samar Alami, MD, "I really believe that my transition into rural practice has been smooth and more self-assured because of this year." Dr. Alami is now a practicing general surgeon in Batavia, NY.

This model offers a mentored year of exposure to varied practice settings, acquisition of endoscopic skills, and the opportunity to acquire knowledge about the business of medicine and coding. In 2014, Anne Arundel was designated as a TTP training site and has provided mentoring for two young TTP Associates. Administrators at Anne Arundel saw this program as an opportunity for seasoned surgeons to share their wisdom and possibly to recruit a future partner. The program has encountered applicants with a significant lack of confidence, as well as young surgeons who could be on the verge of a failed career. For this reason, growing TTP's strengths and enhancing the program to include training in business, communication, and leadership embedded in a mentorship-style program, is the model the medical center is now developing.

"During my year, I was able to work one-on-one with senior surgeons who had been in practice for many years. From these relationships, I was able to have a better understanding of how to build and maintain a surgical practice. It also allowed me to build a relationship that provided an opportunity for the guidance and advice I needed for my future surgical career," said Michael N. Tran, MD. "Another aspect of the program that I found valuable is the fact that the year promotes a change from the state of a resident learner to a mind-set of a surgeon in practice—with a focus on improving efficiency and productivity."

Anne Arundel is focused on cost-effective medical practice in its resident training, as well as in its TTP Program. The faculty and practicing surgeons now ask value-based questions as well as technical questions during morbidity and mortality conferences. Simply stated, instead of assuming trainees have the potential to acquire value-based skills, the faculty is crafting the curriculum to verify that these elements are being covered in a robust way with trainees. The TTP Associates, during a sensitive time of mentored independence, are in an ideal frame of mind to receive additional training, and they have found the experience meaningful.

There is a concern that TTP may be viewed as a remediation year, and some program directors may be reluctant to send their brightest trainees to this program. Furthermore, some trainees are not sure what to make of the program and often apply late as they scramble to understand the opportunities in the context of an independent career track. In fact, the program provides a huge opportunity to offer independence in ways that many surgical trainees cannot obtain during their five years of residency. The opportunity to learn a broad business skill set and organizational awareness, effective negotiation skills, and risk management and quality improvement skills likely flattens the job-change curve, as well as the burnout rate.

“The interpersonal, business, and practical considerations of the surgical world can’t really be fully taught in residency. You need to be on your own with your name on the chart as the surgeon of record to really be able to get into that mode of thinking,” said Lauren Licata, MD. “I found that position changed the timbre of the advice I had received as a resident and as a TTP Associate,” added Dr. Licata, referring to the fact that she received no practice management training in residency, although she did receive this type of instruction in the TTP Program.

Studies have shown that a significant driver of emotional exhaustion and burnout is loss of autonomy.\* What better way to regain control than through actionable skills and time-management techniques as you begin your independent practice? The TTP Program provides a practical surgical practice curriculum that is supported by a mentored first year in practice.

Another factor that highlights the value of this program is related to the fear of failure experienced by some residents when it comes to launching an independent practice. A notable portion of graduating surgical residents typically experience insecurity about their ability to practice successfully. This program helps young surgeons feel more confident about their ability to practice general surgery.

It is time to change the title of this program to emphasize mastery in the field of general surgery. This revised program title should signal the improved confidence and real-world skills that are the foundation of this model. The program can potentially support career

goals related to private practice or work in rural environments. As the program grows, it should support the development of an adequate workforce to meet the needs of the future.

Participating programs will need buy-in and partnership with our residency program directors to allow, and even encourage, their brightest trainees to follow a path involving the TTP Program. This program offers participants a unique opportunity to gain practical skills without pursuing an additional degree. What if we could keep our early practice surgeons where they first land because they made well-informed decisions? Industry experts point out that tens of thousands of final-year residents and fellows are looking for a job each year, which can be a difficult process as residents typically work in a somewhat protected environment and may not have a fully formed idea of what they want in terms of a career.<sup>†</sup> The TTP Program can aid these young surgeons in making well-informed career decisions because it exposes them to a variety of mentors and practice settings.

## **The Geisinger experience**

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Geisinger Health System became interested in starting a TTP Program after learning about the concept, according to John E. Widger, MD, FACS, TTP Program Director, Geisinger, Danville, PA. This health care system, which has multiple types of practices, including small office to tertiary care settings, provides an ideal environment to mentor a young surgeon who has chosen to practice general surgery. Geisinger administrators saw this program as an opportunity for mentees to sharpen their skills in a supervised environment and to learn real-world solutions for increasing efficiency in a general surgery practice—including billing and the economics related to running a practice. The TTP Program also could provide guidance to help a young surgeon determine what type of practice to pursue in the future.

One of the issues that arose early on in the implementation of the program at Geisinger centered on the interaction of the TTP Associate with the senior residents. At the beginning, the TTP Associate was assigned to multiple faculty members, both senior and junior, to get exposure to multiple methods and styles. With time, Geisinger realized that limiting the TTP Associate's interactions to more senior faculty was of greater benefit from a consistency standpoint, and at that point, the interactions with the residents became even more constructive. The senior faculty is composed of general surgeons who are comfortable with the TTP Associate teaching residents and walking residents through the cases.

The program has been structured such that the TTP Associate spends long stretches of time at two general surgery sites away from the tertiary care centers, if possible. These rotations range from four to six months each and allow the TTP Associates to develop a practice of their own under the supervision of senior physicians. Geisinger administrators chose to have two sites instead of one in order to expose the learner to different practice sites and

styles. The types of cases that learners are exposed to include endoscopy, hernia repair, gallbladder surgery, breast surgery, and colon surgery, among other general surgery procedures.

During these rotations, the learner also is assigned to approximately six weeks and six weekends on the emergency general surgery service at the tertiary care center. Finally, between the two long rotations, the TTP Associate is assigned to services based on his or her interests. These are usually at the tertiary care center and include surgical oncology, colorectal surgery, and general surgery with a focus on major abdominal wall defects.

With the initial success of the program and graduation of three TTP Associates, Geisinger administrators made the decision to expand its complement of learners to two per year. This decision was made with the idea that each TTP Associate would spend approximately four to five months at the primary practice where the program director is based. Each TTP Associate has a few months between the long rotations to work on the more advanced services at the tertiary care centers. Whereas the program has two different general surgery residencies, the two TTP Associates interacted with completely different groups of residents.

As Geisinger administrators began launching the program, some health care system leaders expressed concern about the financial impact of the program. The TTP Associates are paid at the postgraduate year-six level. However, the expense associated with their compensation and benefits is actually \$150,000 annually per participant, while over the first three years of the program, the combination of professional and hospital revenues and expenses has generated a positive margin above \$400,000.

It is worth noting that these TTP Associates are credentialed in the system like any other attending physician and receive the same benefits. Since the inception of this program in 2014, Geisinger has had five TTP Associates come through the program—three graduates of Geisinger's residency program and two from outside organizations. All have been residents in very good standing. Of the five, two TTP Associates have stayed on at Geisinger as attending surgeons.

In Geisinger's TTP Program, the main simulation activity focuses on robotic skills. Each TTP Associate must become certified in robotic surgery, which is predicated on the completion of case observations, online modules, simulation, and participation in operations on both the secondary console and primary console. The evaluation of the TTP Program and the TTP Associate occurs through a series of quarterly meetings that include the program director, associate program director, and two site directors, along with the coordinator of the program. At these two-hour meetings, the TTP Associate's performance is discussed and feedback is shared. The TTP Associate also offers an evaluation of the program. These stakeholders discuss methods for improving the program, and changes are made subsequently.

Mohsen M. Shabahang, MD, PhD, FACS, co-author of this article, is the department chair at Geisinger, and he supports the concepts on which this program is based. The residents Geisinger trains may be clinically and technically ready to practice; however, they do not learn how to successfully develop a practice. For years, Geisinger has relied on the senior partners to help guide the junior surgeons. This program allows for maturation of general surgeons through mentoring in a controlled and learner-centered environment. The TTP Program is not a form of remediation, but rather it is a way to underscore the key role of general surgery in the delivery of surgical care in the U.S. This program trains surgeons who serve all the different communities that exist in health care. Our patients deserve that.

## **The Chattanooga rural experience**

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One of the great advantages of the TTP Program's design is the enormous flexibility it provides for varying training experiences beyond residency, according to W. Heath Giles, MD, FACS, TTP Program Director, University of Tennessee, Chattanooga, and co-author of this article. A Junior Associate in the Chattanooga program wanted to practice in a rural environment with the goal of performing a number of procedures that general surgeons rarely perform. He did not want to learn on the job once he arrived, but instead sought to attain proficiency in order to better serve patients in the community. One of his future senior partners, who ran the general surgery rural rotation, performed many cases outside the usual domain of general surgery practice. Therefore, a rural experience was arranged in the practice group he planned to join.

During that year, he performed more than 550 cases, which allowed him to become facile in many nontraditional general surgery procedures. For example, he performed 90 otolaryngology cases, including tonsillectomy and myringotomy/tubes. He also performed general flap reconstruction for soft-tissue excisions, and completed 105 dialysis procedures with university-based vascular surgeons.

Although difficult to measure, an invaluable aspect of the program was the opportunity to develop relationships with community physicians, future partners, and hospital administrators. The extensive experience provided by the TTP Program fully prepared this Junior Associate to seamlessly join that rural practice.

## **Launch of the ACS Mastery in General Surgery Program**

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The ACS has encountered several obstacles in the development of the TTP Program. The most difficult challenge may be explaining the basic concept: Is it a fellowship or something else? The TTP Program has certainly been an innovative concept, particularly for general surgery—although funding is an issue at some institutions, despite the fact that the Junior Associate may bill for services. Details regarding the mission and purpose of the TTP Program have been disseminated to the surgical educators' community, even though many surgeons who might benefit from the experience are unaware of its existence.

Furthermore, many surgical educators, including program directors of general surgery residencies, erroneously view this as a remedial one. Although many young surgeons may lack the confidence to allow a comfortable entry into practice, the TTP Program is not designed to instruct those who were poorly trained during the primary surgical residency.

As a result, the ACS TTP Steering Committee has expanded the concept and rebranded the program to underscore its aim to provide a mastery of the elements of general surgery practice. The program is now called the ACS Mastery in General Surgery Program. Clearly, mastery is a lifelong pursuit, but this program is designed to establish the foundation for excellence through specific skill acquisition and mentorship. Further skill development and refinement is expected to occur across the lifetime of the surgeon's practice.

In addition, the Mastery Program encompasses elements of business acumen, practice management, and the nontechnical skills necessary in surgical practice. The College is developing several modules on leadership, practice management, and other relevant skills to enhance the existing model for the program.

The TTP Steering Committee and the individual directors of the program are proud of the accomplishments achieved thus far. At the end of this academic year, more than 50 young surgeons will have completed the program, and if each graduate practices for at least 30 years, that equates to a total of 1,500 practice years. This program continues to be focused on training competent and confident general surgeons, and will continue to bring greater attention to this important stage in a young surgeon's training and professional development. The ACS is committed to this effort and other approaches to reinvigorating general surgery as a career.

To obtain a list of approved ACS Mastery in General Surgery Program sites, contact Rachel Williams Newman at 312-202-5653, e-mail [MasteryGS@facs.org](mailto:MasteryGS@facs.org), or visit [facs.org/masterygs](http://facs.org/masterygs).

## **Acknowledgment**

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The TTP Steering Committee would like to recognize the efforts of Linda K. Lupi, MBA, Assistant Director, Education Administration and Education Scholarship, and Rachel Williams Newman, MS, Manager, Education and Training to Support Transitions in Surgery, from the ACS Division of Education, whose skills, commitment, and tireless efforts have been key to the success of this unique program.

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\*Campbell DA Jr, Sonnad SS, Eckhauser FE, Campbell KK, Greenfield LJ. Burnout among American surgeons. *Surgery*. 2001;130(4):696-702.

†Page L. Seven job search mistakes of new physicians. *Medscape*. April 7, 2015. Available at: [www.medscape.com/viewarticle/842301](http://www.medscape.com/viewarticle/842301). Accessed April 19, 2018.

