Life after training: Learning new skills as a general thoracic surgeon

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Disclosures: Author has nothing to disclose with regard to commercial support.

Received for publication Nov 1, 2016; revisions received Jan 12, 2017; accepted for publication Feb 28, 2017; available ahead of print March 29, 2017.

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J Thorac Cardiovasc Surg 2017;154:377-9

0022-5223/\$36.00

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<http://dx.doi.org/10.1016/j.jtcvs.2017.02.047>

Regardless of the completeness of training, the length of residency/fellowship, or work ethic and initiative during training, every new attending physician will face an operation with which he or she is uncomfortable. Indeed, most early operations will and should generate some level of anxiety because new graduates are practically overnight thrust into an attending surgeon role, seemingly isolated and without the clearly defined senior support that was a hallmark of training. Additionally, new surgeons will become aware of gaps in their knowledge and will need to stay up to date on the current literature. Fortunately, newly minted thoracic surgeons have at their disposal established support systems that allow ongoing maturation and success.

PARTNERS

A key element in my own ongoing education has been the complement of surgeons in my group. There are pros and cons to joining a group versus a solo practice,¹ but I was very fortunate to join a practice with 3 senior surgeons and 1 junior surgeon. Each is a complete general thoracic surgeon, yet each also has a unique interest or skill set from which I can learn. For example, 1 senior attending is an expert in thoroscopic resection, another has an interest in esophageal and antireflux surgery, and the third performs many tracheal and chest wall operations. The junior partner is facile with newer techniques such as endobronchial ultrasound (EBUS) and navigational bronchoscopy.

This abundance of resources has allowed me to expand my own technical skills and operative expertise. From day 1, I knew I had the support and backing to tackle whatever major case might come my way, whether it be an esophagectomy, a Pancoast tumor, or an extrapleural pneumonectomy. I am fortunate to have multiple partners to back me up, but having even a single senior partner who can act as a mentor and advisor is invaluable.² The key in scheduling and performing large operations is not ensuring the complete assistance of a physician partner for the entire case; rather, it is necessary to push your own comfort zone (in a safe manner) before calling for backup. It is critical to

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Central Message

Transitioning from cardiothoracic trainee to general thoracic surgeon requires ongoing learning; having the humility and wisdom to use available resources and guidance are the keys to success.

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ascertain that help is available, but it is just as critical not to fall back into the role of trainee.

Perhaps just as great a challenge as being comfortable scheduling major cases was scheduling some of the so-called small cases. Like, I imagine, most cardiothoracic surgery trainees, during training I almost always scoured the case list to find the biggest, best, most exciting cases. I certainly do not regret doing so, but such an approach inevitably leads to lesser experience with some of the more routine cases we face as professionals. For me, this was compounded by the fact that my fellowship institution had a very strong interventional pulmonology presence; to get my board-required numbers for techniques such as EBUS and rigid/interventional bronchoscopy, I had to spend dedicated time with the pulmonology team. Although getting the case numbers was not in itself difficult, spending time with pulmonology meant that I had to spend time away from my own surgical team (which I naturally sought to minimize both for my own education and out of a sense of duty to my attending physicians), and it also meant that I frequently was competing with internal medicine residents and pulmonology fellows for cases. These factors all influenced my experience and my consequent comfort level with

performing similar cases at the outset of my professional practice.

The most important factor in helping me face all cases was the support of my partners. At my current institution, thoracic surgery plays a major role in performing interventional pulmonology-type cases. My partners have been able to gain expertise in these techniques and impart their wisdom to me. For many of my earliest EBUS procedures—navigational bronchoscopies and rigid bronchoscopies—I specifically asked the other junior partner in my group to be present with me from the start. Although seeking assistance for an operation may feel like an admission of inadequate training or knowledge, it is incredibly important to realize that no one was an expert at every aspect of thoracic surgery upon completing training. Asking for help for a technique to which you were not heavily exposed during training is more likely to be seen as taking initiative and having a drive to continue growing and learning than to be regarded as a deficiency or weakness.

Finally, a best way to continue learning new skills is to participate in colleagues' operations. During my first several months as a professional surgeon, I would use some of my free time to wander into my partners' operating rooms and watch—and sometimes scrub into—their cases. I certainly would not be present all of the time, nor would I necessarily scrub into or watch the entirety of a procedure. But if an operation was occurring that I believed I had not yet mastered, I would not at all hesitate to observe the procedure. Just as I would ask the junior partner to be present for my initial EBUS procedures, I would also ask to watch his, which helped me better master how to set up the EBUS scope and identify lymph nodes. I also would observe my soon-to-retire senior partner perform first rib resections and rigid bronchoscopies because I knew that many of those procedures would soon fall to me. Taking this initiative makes it easier to ask your partners for assistance in return because it demonstrates that you are committing time and effort to learning from them and not just asking them to commit time and energy to assisting you.

PRIOR MENTORS

I was extremely fortunate to join a supportive academic practice, and I realize that not everyone has such an opportunity. Many of my friends and colleagues joined practices of a single other surgeon who does not perform techniques such as thoracoscopy or robotics; others joined groups of cardiac surgeons who covered thoracic surgery cases out of necessity but sought a new partner to grow the division. For new surgeons in settings such as these, past teachers and mentors from training can provide invaluable assistance. Furthermore, such mentors can be a resource for new graduates who are able to join a group such as mine. During my first few months of practice, I often found myself with questions that I was frankly too embarrassed to ask my partners.

In these situations, I would call my fellowship attending physicians, who knew me quite well and with whom I was quite comfortable asking essentially anything. These teachers continue to play a role in my career progression.

COURSES

Another excellent avenue to learn new skills is sponsored courses. These courses can be particularly useful for learning an emerging technique, but there is also opportunity to attend workshops on established procedures. Between courses offered by thoracic surgery professional organizations such as The American Association for Thoracic Surgery as well as industry-sponsored workshops, there are countless opportunities for hands-on training after residency or fellowship. Seeking out courses or observations in procedures such as transoral incisional fundoplication, per-oral endoscopic myotomy, and LINX (Torax Medical Inc, Shoreview, Minn) implantation can help provide exposure to novel and emerging procedures, whereas robust minifellowship programs in areas such as video-assisted thoracoscopic surgery lobectomy and robot-assisted surgery can start a surgeon on the path to becoming comfortable with those increasingly popular platforms. If time or availability do not permit spending multiple days traveling to a course, webinars represent an excellent method for taking the first steps toward understanding a procedure's applications and conduct.

Aside from opportunities for technical improvement, professional organizations also offer educational programs for those interested in academic endeavors, with curricula guided toward topics such as research methods and grant writing. Such workshops provide a high-yield, densely packed syllabus that can help expand and push one's academic pursuits.

EDUCATIONAL RESOURCES

Perhaps not as obviously daunting as learning new technical skills while on the job, maintaining current medical knowledge is extremely important for new graduates. Amidst being bogged down with reading textbooks and review manuals in preparation for written and oral Board exams, one must also stay abreast of new literature. Three excellent ways to maintain current medical knowledge are through reading journals, subscribing to CTSNet e-mail, and attending national conferences.

I have found it most helpful to subscribe to a few key cardiothoracic surgery-related journals and to read them monthly. Reading the thoracic-focused literature is of obvious clinical benefit and helps to stay atop the literature, but also perusing cardiac and congenital content offers an understanding of how the thinkers and innovators in the field at large are progressing forward. A valuable adjunct to focusing on 1 or 2 journals is subscribing to the CTSNet Journal and News Scan. This weekly e-mail provides a few high-yield articles that reflect the current state of the

literature across a broad array of publications. The CTSNet Pulse weekly e-mail is also an excellent resource that provides links to videos of novel operative techniques and interesting cases as well as interviews with pillars of the field.

Finally, attending national conferences allows one to stay current with general thoracic knowledge. Conferences allow interaction with the movers and shakers of cardiothoracic surgery as well as opportunities to listen to and participate in discussions of the latest topics in the field.

CONCLUSIONS

Young thoracic surgeons need to have the wisdom and humility to seek help from those around them. Far from

having no senior assistance on the literal or figurative other side of the table (as is often feared to be the case), a new attending surgeon has as much or more guidance than ever before at his or her disposal. Using the knowledge and experience of predecessors and partners and taking advantage of the abundance of available resources will help new graduates continue to learn and grow as thoracic surgeons.

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