Notable Grand Rounds
of the
Michael & Marian Ilitch
Department of Surgery

Wayne State University
School of Medicine

Detroit, Michigan, USA

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TWO DOZEN YEARS, TWO PD'S AND TOP LESSONS LEARNED FROM SURGICAL EDUCATION

34TH ANNUAL
ALEXANDER J. WALT
ENDOWED LECTURE

May 31, 2023

About Notable Grand Rounds

These assembled papers are edited transcripts of didactic lectures given by mainly senior residents, but also some distinguished attending and guests, at the Grand Rounds of the Michael and Marian Ilitch Department of Surgery at the Wayne State University School of Medicine.

Every week, approximately 50 faculty attending surgeons and surgical residents meet to conduct postmortems on cases that did not go well. That “Mortality and Morbidity” conference is followed immediately by Grand Rounds.

This collection is not intended as a scholarly journal, but in a significant way it is a peer reviewed publication by virtue of the fact that every presentation is examined in great detail by those 50 or so surgeons.

It serves to honor the presenters for their effort, to potentially serve as first draft for an article for submission to a medical journal, to let residents and potential residents see the high standard achieved by their peers and expected of them, and by no means least, to contribute to better patient care.

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Two Dozen Years, Two PD's and Top Lessons Learned From Surgical Education

34th Annual Alexander J. Walt Endowed Lecture

Wayne State University

May 31, 2023

Randall W. Smith MD, FACS
J. Scott Thomas MD, FACS

This paper is derived from Dr. Smith and Dr. Thomas' joint delivery of the 34th Annual Alexander J. Walt Endowed Lecture at Surgical Grand Rounds of the Wayne State University School of Medicine on May 31,2023

What Is a Program Director?

In 2008, a study (which, to our knowledge, has not since been replicated) found that few colorectal surgeons pursued the program director role and the role was predominated by Caucasian males. We feel confident in asserting that the demographic characteristics of the general surgery residency program director, shown in Tables 1 and 2 on the next page, would be found to be very different if the study were replicated today.

This paper is intended more to highlight what it is *like* to be a program director and a few lessons learned from the authors' experiences as surgical residency program directors over two dozen years including:

- The value of education as a career pathway,
- The difficulties faced by the left-handed surgeon,
- The importance of organization
- The inevitability of change
- Surprises not expected.
- Camaraderie
- The difficulty of surgery
- The rewards of being a Program Director.

TABLE 1. Demographics of General Surgery Program Directors and Their Residency Program (n = 146)

Demographic/Characteristic	Mean (SD) or Percent	Range
Age	51.3 (8.2)	36-75
≥50 years	56.2%	
Gender		
Male	89.7%	
Race		
Caucasian	86.9%	
African American	6.2%	
American Indian	0.7%	
Asian	4.8%	
Hispanic/Latino	1.4%	
Administrative Rank		
No rank title	10.9%	
Associate/assistant professor	47.3%	
Professor	41.8%	
Concurrent Administrative Title		
Department chairperson	25.3%	
Division chairperson	21.2%	
Vice chairman	17.1%	
Dean	2.7%	
Clerkship director	9.6%	
With 1 additional admin. title	56.1%	
With 2 additional admin. title	8.9%	
Fellowship Training	63.7%	
Trauma	22.6%	
Surgical oncology	17.2%	
Laparoscopy	10.8%	
Pediatric surgery	9.7%	
Colorectal	9.7%	
Vascular	8.6%	
Cardiothoracic	6.5%	
Transplant	6.5%	
Hepatobiliary	5.4%	
Research	3.2%	
Burn	2.2%	
Endocrine	2.2%	
Surgical ID	1.1%	
Plastics	1.1%	
With 2 fellowships	6.5%	

Table 1. Demographics of General Surgery Program Directors and Their Residency Program (n = 146). *Source*: Table 1 in Arora TK, Kaplan BJ. Who are surgery program directors and what do they need? J Surg Educ. 2008 Nov-Dec;65(6):504-11. doi: 10.1016/j.jsurg.2008.04.010. PMID: 19059185.

TABLE 2. Years as PD

Demographic/Characteristic	Mean (SD) or Percent
Years as PD (n = 146)	6.8 (6.3)
<1–4	46.6%
5–9	25.3%
≥10	28.1%
Years of Intent to remain PD (n = 119)	5.5 (4.0)
Intend to remain PD <5 more years	42.0%
Estimated Total Duration of Current PDs (n = 119)	
<5	6.7%
5–7	18.5%
8–10	23.5%
≥10	51.3%

Table 2. Years as PD. *Source*: Table 2 in Arora TK, Kaplan BJ. Who are surgery program directors and what do they need? J Surg Educ. 2008 Nov-Dec;65(6):504-11. doi: 10.1016/j.jsurg.2008.04.010. PMID: 19059185.

Education as a career pathway

There are several supports for teaching the skills needed to direct a surgical residency program, including a surgeons educators' course offered by the ACS, clerkship groups, and program director workshops. The Program for Educators in Health Professions offered by the Harvard Macy Institute is a resource we have used and can recommend.

A 2009 article by John Tarpley,[1] a well-known educator and formerly a program director at Vanderbilt, is probably useful still today, in the absence of any more recent study. Tarpley discusses the various "hats" or roles of the program director: Mentor, coach, parent, den mother, cheerleader, police officer, curriculum developer, social chair, and confessor.

Each and every one of these roles is absolutely essential to a residency. In addition to mentoring the residents, the director also has to men-

[1] Tarpley JL, Tarpley MJ. Tarp's baker's dozen: instructions to beginning program directors and some lessons learned. Journal of surgical education. 66(66). 285-7. PMID: 20005502 [PubMed]

tor the assistant program director and program administrator, with a view to moving them forward.

The director also needs to be a diplomat, praising in public but critiquing in private. Obviously, the selection and instruction of residents is critical but also it is important to look for teaching moments in everything to help the resident realize his or her potential.

One of the authors (RWS) has a particular interest in singling out the left-handed surgeon as someone who deserves a little extra attention.

The left-handed surgeon

Left-handedness is most commonly associated with writing with the left hand. Twelve percent of the population (slightly higher in males than females) is left-handed. There does not appear to be a single gene for left-handedness—as many as 40 genes have so far been implicated.[2]

In Latin, the word *left* shares roots with the adjectives *sinister* and *unlucky*. Today we often associate it with *uncoordinated*: “She has two left feet”; “He is out in left field”. It has negative connotations. The devil is usually depicted with the pitchfork in his left hand. Lefties were commonly forced to write with the right hand in this country before 1950 and the practice remains common in some Asian countries today. The Latin for *right*, on the other hand, shares roots with *dexterity*.

It is generally thought that “lefties” are left-brain dominant (though it is not entirely clear that this is so)[3] and there are certain groups in which left-handedness is much more common—48% of Major League pitchers, for example, are left handed, as are a fair number of tennis players. Their throws and shots tend to be harder to predict by right-handed opponents.

Machines even as basic as scissors are designed for right-handed people. Cutting a suture can be a problem for an inexperienced left-handed medical student, who needs to learn to use a different torque on the scissors in order to make it work.

First-year general surgery residents tend to do relatively few operations and may not realize until their second year that they are sometimes placed on the “wrong” (for them) side of the table. Very often the easiest solution—though actually quite hard for a 25-year-old leftie—is to learn to become right-handed or spend many extra hours on the simulator.

The important thing is for the program director and attendings to recognize from the start of a new residency when a resident is left-handed and needs to be put in his or her dominant position for open and laparoscopic procedures and may need other assistance.

One of us (a leftie) recalls, as a fifth-year resident, performing a choledochoduodenostomy (since replaced by endoscopic retrograde cholangiopancreatography [ERCP]) to clear the common bile duct. His considerate mentor had set up everything for a left-handed procedure. The resident was so accustomed to nobody paying attention to his left-handedness that it perversely caused considerable stress, though he performed the procedure successfully.

In fact, laparoscopic (increasingly, robotic) cholecystectomy—the most common operation that a general surgery resident does today—is

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[2] See, e.g., McManus IC, Davison A, Armour JA. Multilocus genetic models of handedness closely resemble single-locus models in explaining family data and are compatible with genome-wide association studies. Ann N Y Acad Sci. 2013 Jun;1288:48-58. doi:10.1111/nyas.12102. Epub 2013 Apr 30. PubMed: 23631511. Free full-text available from PubMed Central: PMC4298034.

[3] Zhiqiang Sha, Pepe A, Schijven D, and Franck C. Handedness and its genetic influences are associated with structural asymmetries of the cerebral cortex in 31,864 individuals. PNAS 118 (47) e2113095118, November 16, 2021. https://doi.org/10.1073/pnas.2113095118

not a good left-handed operation. Port placement alone is awkward (see Fig. 1).

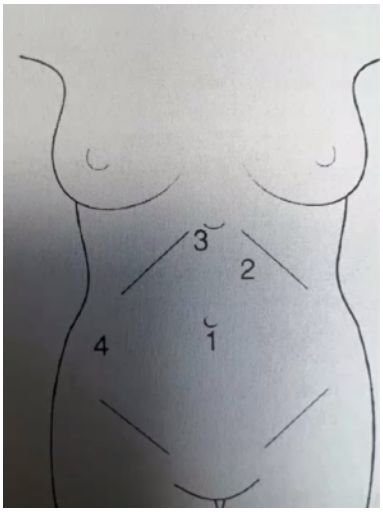

Fig. 1. Port placement for a leftie

Organization

The residency organization lives and dies with the program administrator. One of us (JST) has had four program administrators during his time as a residency program director. All program directors know that their program administrators are the key people. They are the face of the program. They are not only the director's friend and confidant but also surrogate parents for the residents and students. They are the glue holding the program together.

Change

The only constant is change itself. We experienced lots of changes during our time as program directors; perhaps the biggest being the reduction in resident's hours—from unlimited to 80 hours (at least, in theory!) Once upon a time, residents basically lived in the hospital; hence, the term *resident*. Today, resident wellness clearly involves *not* being in the hospital. We have to recognize that as the *status quo*.

As well, the things program directors have to do on a daily and monthly and yearly basis is constantly changing: Six-month reviews, American Board of Surgery meetings, evaluations, New Innovations tasks, online platforms, faculty meetings, and clinical competency committees (CCC) are the norm today. Previously, good feedback was the absence of criticism; today we face the challenges of timely feedback and continuing program requirements. We've gone from open surgery to nearly all laparoscopic—and increasingly robotic—surgery.

What's next? General Surgery Milestone Project[4] is well underway and the Entrustable Professional Activities project will be starting in July, introducing another paradigm in education evaluation. Will it lead to a variable training program involving fewer than five years of general surgery residency for early specialization? TBD!

Program directors can expect additional work, new restrictions, wellness requirements, and more. But they must and will adapt, just as the residents will. They already must be responsive to resident concerns. Previously, it might have been enough to keep one's head down, but that is no longer an option.

I would never have guessed that would happen!

There's change, and then there is surprise. We are leery of surprise flying in from (for lack of a better term) left field. It might be something as simple as an absence, which can be very disruptive to a surgical team and the residency. Someone has to step up (and in general surgery, residents do). We all make poor decisions at times.

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[4] The general surgery milestone project. J Grad Med Educ. 2014 Mar;6(1 Suppl 1):320-8. doi: 10.4300/JGME-06-01s1-40.1. PMID: 24701296; PMCID: PMC3966597.

Pictures taken at inopportune times become unanticipated HIPAA violations.

Transparency is always the best policy but it too can lead to unwanted surprises. Being up front about a hospital merger-in-the-making might only serve to increase rather than reduce uncertainty and anxiety.

Program directors will come and go and department chairs will come and go, but from a resident's perspective what is important is to have patients coming through the door to take care of so the resident can learn to be the surgeon that s/he wants to be. Residents' leaving a program is risky for the residency. It affects morale. Such surprises don't occur week-in-and-week-out but they happen. The unexpected death of a colleague can significantly impact a residency. World events can too: 9/11 and COVID are just two prominent examples.

Camaraderie

COVID administered a great shock to our residency in Texas and perhaps an even a bigger shock in this more metropolitan area of Detroit, but it served to point out one thing substantially, that *togetherness* really matters for a general surgery residency. COVID just brought it to the forefront and made us really appreciate it. People were dying all around, there was much fear and uncertainty, and we went from doing a lot of surgery to doing no surgery, practically overnight.

A positive outcome was that half our residents were sent home for alternating weeks, which was good for the mind, good for the soul, and good for the body, which was meant to retain a healthy bench of residents so that if one became ill from COVID we had a healthy team ready to step in and continue to deliver good patient care.

But for many people, the "alone time" was too much. This past May, the Surgeon General issued a white paper on the "epidemic of loneliness and isolation in the US".[5] It is a serious concern but one that can be countered by fostering the camaraderie that comes naturally to surgeons. This camaraderie facilitates decompression amongst residents in a very challenging field. Our "gallows humor", which others might find in poor taste, can help in that regard.

Two residents left our program and surgery during this time. We feel one resident left in large part because of COVID-related isolation, when for a period of time their support system—the group, the camaraderie, and even the access to their family—became challenged. They were already somewhat marginalized to begin with, something we as program leadership could or perhaps should have recognized, and they withdrew from the program.

Surgery is hard

Even in the best of times, surgery is hard. It really is a hard road for our residents, a hard road for a student who chooses to go down that path, and it's hard for the practicing surgeon. We must never lose sight of the fact that what we do is hard. The weekly Morbidity and Mortality Conferences that precede these Grand Rounds are testament to that fact. The best of intentions sometimes lead to adverse outcomes, and as the French practitioner René Leriche wrote:

> "Every surgeon carries within himself a small cemetery, where from time to time he goes to pray—a place of bitterness and regret, where

[5] DHHS: New Surgeon General Advisory Raises Alarm about the Devastating Impact of the Epidemic of Loneliness and Isolation in the United States. Press release, May 3, 2023, accessible at https://www.hhs.gov/about/news/2023/05/03/new-surgeon-general-advisory-raises-alarm-about-devastating-impact-epidemic-loneliness-isolation-united-states.html.

> he must look for an explanation for his failures."[6]

But as Tom Hanks said: "If it wasn't hard, everyone would do it. It's the hard that makes it great."[7] Long hours, time away from your family in the prime of your life… but remember that when patients are really sick, the ER does not send for an ophthalmologist—they send for a general surgeon.

As a surgical residency program director, know this: That even when everything goes perfectly, something can get in the way. Armando Gallaraga and the 28 out perfect game June 2, 2010 is testament to that. Be honest with yourself and expect honesty from others. Identify those residents who may be struggling. Faculty, fellow residents, and even students also need to be tuned in to that struggling resident and try to meet them where they're at.

We believe a group of surgery residents is as resilient as a group can be. They persist no matter what others think. They experience highs and lows every day. They go from a massive trauma resuscitation or thoracotomy to walk to the next room to talk to a patient about an elective inguinal hernia. If that's not resilient, we don't know what is. Not everyone can handle that.

Surgery is hard for a reason. The more you do, the better you're going to be. You are unlikely to look back and say you did too many of such-and-such a case. They all frame a point of reference that will serve your patients well. Find the joy in everything you do—even the never-ending consults about things that don't seem to matter and probably don't need a surgeon. Find joy in each of those consults, in the fact that you're helping someone.

Being a surgeon is a privilege. Clearly, there's respect and compensation and even admiration from our colleagues. But in 10 minutes time you may well find yourself talking to a patient about their disease process and about rearranging their organs in some unusual manner so as to make them better—and they will likely agree to it. Think about that privilege that we are offered as surgeons! Let it carry you through to that 50th consult about a fall from standing. Find the joy in what you're doing, to help you persevere, to keep your resiliency strong.

Being the PD was the best job!

Finally, we want to say that even in our current status as "recovering program directors" we recognize the role as probably the best we've ever had and probably ever will have. Prospectively, for the new program director, it's a little challenging, for sure. But *you* will get to pick the residents and students to join your program. You will watch the bright minds, the talented individuals *you* have chosen, blossom from student to resident to faculty. You will sit at the apex of an astounding camaraderie.

Just being a surgeon is hard, but it is also privileged and rewarding. We know we are considerably better surgeons than we would have been without having residents and students challenging us every day.

As Dr. Walt said, it boils down to working hard, being honest, and letting the rest take care of itself.

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[6] Quoted in Arnold-Forster A. 'A small cemetery': death and dying in the contemporary British operating theatre. Med Humanit. 2020 Sep;46(3):278-287. doi: 10.1136/medhum-2019-011668. Epub 2019 Jul 25. PMID: 31345933; PMCID: PMC7476300.

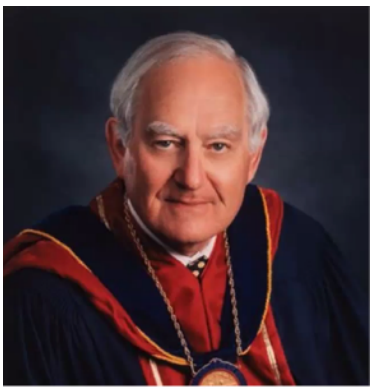
[7] "Tom Hanks Quotes." BrainyQuote.com. BrainyMedia Inc, 2023. 22 June 2023. https://www.brainyquote.com/quotes/tom_hanks_161990

Dr. Alexander J. Walt

Dr. Alexander J. Walt grew up in South Africa. He came to the Mayo Clinic for training in surgery and returned home to build a successful practice, but the social and political instability of apartheid, and the urgings of family members in Detroit, brought him here. He was soon identified as a key educator and leader and was quickly moved into an interim chair position and went on to serve for 22 years as chair of the Department of Surgery at Wayne State University.[8]

He was accomplished on many levels, becoming president of several major societies including the American College of Surgeons, the American Association for the Surgery of Trauma (AAST), the Central Surgical Association (CSA), and the Western Surgical Association (WSA).

One of his aphorisms was: “Work hard and be honest, and the rest will take care of itself” is very apropos to the topic of this paper.



[8] Lucas CE, Walt AM. Dr. Alexander J. Walt: Historian, philosopher, and surgical educator. Am J Surg. 2023 Mar;225(3):466-476. doi: 10.1016/j.amjsurg.2022.11.013. Epub 2022 Nov 21. PMID: 36549942.

About the Authors

Dr. Smith is a general surgeon specializing in surgical critical care at Baylor Scott & White Continuing Care Hospital - Temple, and Baylor Scott & White Medical Center - Temple. He received his MD in 1981 from the Wayne State University School of Medicine, where he also completed his general surgery residency in 1986.

Dr. Thomas is a Clinical Professor of Surgery at the Texas A&M University Health Science Center College of Medicine and Baylor College of Medicine – Temple at Baylor Scott & White Memorial Hospital. He attended medical school at the Texas A&M University Health Science Center College of Medicine and then completed a General Surgery residency at Baylor Scott & White Medical Center – Temple and a colorectal surgery fellowship at Baylor University Medical Center in Dallas. He is ABS certified in colon and rectal surgery and general surgery.