Attrition among surgical Residents - Why we should care

By Chuck Dinerstein — December 20, 2016

This week a meta-analysis in *JAMA Surgery* looked at Prevalence and Causes of attrition among surgical residents [1] Here are the highlights:

- There were nineteen studies of American surgical residencies, involving about 20,00 residents
- Attrition rate was about 18 percent with a range of 4.4 to 43.6 percent.
- The primary causes of attrition were ‘uncontrollable lifestyle,’ followed by ‘chose another specialty’ – this data did not lend itself to further statistical analysis.
- The preponderance of attrition was at the end of post-graduate years-one year (PGY-1) (48 percent ) and two (28 percent).
- Only 20 percent of the residents leaving continued in general surgery residencies; anesthesia, plastic surgery, radiology and family medicine were other specialties those leaving general surgery pursued.
- Attrition was more common for women (25 percent) than men (15 percent).

I was drawn to the article, because I was, in fact part, of that attrition, having left my initial general surgery program. I left because it was a bad fit and in the days of steep pyramids it was evident, at least to me, that I would not be one of the remaining 3 of our 20 surgical interns. I spent a great year in Vermont, growing up, decompressing from 20 years of continuous education, before returning to a general surgery program.

The rate of attrition, 18%, is a big number and it reminded me of another of my life’s moments.
When I went to my son’s high school graduation (from a private school), it listed the colleges that the graduates would be attending. I was surprised to see that about 10% would be attending the Navy Academy. I discovered that the Naval Academy used this private high school for candidates that they wanted but who were, in their view, not academically ready. A post-graduate year at another high school eliminated those who weren’t going to complete their Navy education, saving the students a lot of heart-ache and the Naval Academy some money.

The American College of Surgeons indicates [1] that the PGY-1 general surgery residency positions are holding steady at about 1,100. So, about 200 are predicted to leave based on this meta-analysis. A 2013 Rand Study [2] on the cost of residencies places the average cost at about $141,240. Attrition of 200 general surgical residents is costly, to the tune of about $28 million annually.

General Surgery is not a lifestyle choice; the work is often undervalued and treating a perforation requires you to stop what you’re doing and attend to the patient, whether during office hours while eating with your family or sleeping. No one has figured out how to schedule those emergencies.

The article also points out that residency work hour restrictions have not improved the lifestyle of general surgeons. The authors suggest that mentoring might be helpful or increasing a medical student’s exposure to surgical reality would be useful. And I had to laugh at this suggestion, “…adding a transition year between medical school and residency training with rotations in the general specialties, such as general surgery and internal medicine…” I am sure that used to be called internship, and it existed in our past, before, for purposes of efficiency, we began to offer surgical internships and now have focused vascular surgical training completely outside of general surgical training.

$ Twenty-eight million is a lot of money, more importantly, 18 percent attrition is a waste of our teaching resources and creates unwarranted stress for our physicians in training. Perhaps it is time we find a way to emulate the Naval Academy with a system that ensures that medical school graduates make informed choices and that supports their success. Maybe we should find a way to slow the educational pace and let our trainees experience life a bit more before we ask them to commit to another six years of solitude learning to be surgeons.
