

Changes in Medicine: Fellowship

Pulmonary fellowship in the late 70's and early 80's was largely unstructured. I had the advantage of doing two fellowships. One was at the University of Nebraska Medical Center and was predominantly clinical. There was one other fellow and we spent our time going to clinic, reading pulmonary function tests, supervising exercise testing, doing consults, and providing inpatient care both on the floors and the intensive care unit (ICU). We became involved with most of the patients in the ICU who were there for more than a day or two. The work was long and hard. We were mostly autonomous and only loosely supervised.

The attending physicians relied on us to call when we needed help or there was something we thought they should know. Call was at home but it was unusual to leave before 8 PM. The fellows alternated call every other weekend making it tolerable. There were plenty of procedures. I did over 150 bronchoscopies my first year and performed sufficient numbers of intubations, thoracentesis, chest tubes, pulmonary artery catheters, etc. to be comfortable. There was little time or emphasis on research or other scholarly activity.

The other fellowship at the National Institutes of Health was the opposite. Research was clearly emphasized and most of our time was spent in the laboratory. Patient care was confined to patients on research protocols or consults to other services who had patients with incidental pulmonary problems. Procedures other than our research based protocols were rare.

At the time there were few critical care fellowships. A fellow interested in the ICU usually entered a pulmonary fellowship or more rarely a cardiology fellowship. Anesthesia also practiced in the ICU at some institutions. Pediatric ICUs were left to the pediatricians. The American Board of Internal Medicine did require 36 months of fellowship but only 12 months needed to be clinical which was largely undefined.

A number of regulatory agencies entered fellowship regulation during the past 30 years. Most importantly has been the Accreditation Council on Graduated Medical Education (ACGME). As with residencies, the ACGME accredits the fellowship, and therefore, makes the rules. ACGME now recommends 24 months of clinical activity with a host of training requirements pertaining to patient care and medical knowledge (1). In addition, requirements now exist for competencies in practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice. Procedural training such as bronchoscopy (minimum now at 100) and the newer procedures such as sleep studies and ultrasound are also recommended or required. Fellowship directors are familiar with the ACGME's program information form (PIF) which now extends to at least 75 pages describing the program. In addition, much of the PIF is devoted to answering questions such as "Describe at least one learning activity, other than lecture, by which residents develop a commitment to carrying out professional responsibilities and an adherence to ethical principles" or "Describe the learning activity(ies) through which residents achieve competence in the elements of systems-based practice: work effectively in various health care delivery settings and systems, coordinate patient care within the health care

system; incorporate considerations of cost-containment and risk-benefit analysis in patient care; and, advocate for quality patient care and optimal patient care systems and work in interprofessional teams to enhance patient safety and care quality". So the educational requirements to meet patient care and medical knowledge requirements as well as the newer requirements have been greatly extended leaving little time for scholarly activity or research. Many, if not most, fellows now leave their fellowship having never conducted a research study nor authoring a peer-reviewed manuscript.

Other organizations such as the Joint Commission of Healthcare Organizations, American College of Chest Physicians (2) and a variety of insurance carriers have waded in on credentialing requiring certain numbers of procedures for fellows to be certified as competent. Although these requirements are not unreasonable, they are arbitrary and the evidence basis on which they were formed is unclear.

The amount of paperwork regarding fellowships has undoubtedly increased for both the fellowship programs as well as the fellows themselves tracking procedures, etc. The number of personnel necessary to administer these regulatory activities has also undoubtedly increased. Supervision of fellows has also increased with attending physicians having more input into patient care. However, whether these lead to better trained physicians or better patient care is unknown. My suspicion is that it has not, at least there appears to be no evidence that anyone benefits. On the other hand, the amount of resources spent on supervision and documentation may actually lead to a decrease in the resources available for important educational and patient care activities actually result in harm to the fellows and possibly the patients. Regulatory agencies should investigate before mandating or even recommending educational requirements. More commonly the agency convenes a group of "experts" for advice. Often there is no reliable data, and therefore, the "expert" panel makes recommendations based on their opinions. Not only the regulatory agencies but the panels of experts need to show restraint in making recommendations when there is no data. We often tell our fellows that it is alright to say "I don't know". Regulatory agencies and expert panels should also be willing to admit their limitations.

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References

1. <http://www.acgme.org/> (accessed 8-8-11)
2. Ernst A, Silvestri GA, Johnstone D. Interventional pulmonary procedures: guidelines from the American college of chest physicians. *Chest* 2003;123;1693-1717

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