Title: General Surgery Residency Inadequately Prepares Trainees for Fellowship

General Surgery Residency Inadequately Prepares Trainees for Fellowship: Results of a Survey of Fellowship Program Directors


Author Institutions:
1Indiana University School of Medicine, Indianapolis, IN, USA
2Virginia Mason Medical Center, Seattle, WA, USA
3Harvard Medical School, Beth Israel Deaconess Medical Center, Boston, MA, USA
4Methodist Dallas Medical Center, Dallas, TX, USA
5Oregon Health Science University, Oregon Clinic, Portland, Oregon, OR, USA
6Swedish Medical Center, Seattle, WA, USA
7Cleveland Clinic Florida, Florida Atlantic University College of Medicine, Westin, Florida, FL, USA
8University of Miami, Miami, FL, USA
9Florida Hospital, Tampa, FL, USA
10Washington University School of Medicine, St Louis, Missouri, MO, USA
11Texas Endosurgery Institute, San Antonio, TX, USA
12St Vincent’s Hospital, Indianapolis, IN, USA
13University of Virginia, Charlottesville, VA, USA
14University of Michigan, Ann Arbour, MI, USA

Tags
Clinical domain None
Educational domain Curriculum
Education research
(Post)graduate
(Residency training)
Background

Recent changes in the practice environment in general surgery: adoption of new technologies, integration of advanced minimally invasive techniques, expansion of the knowledge and increased variety of procedures. Concurrent to this is the outcomes of increased attention to safety: duty hours limitation and an enhanced level of supervision with diminished degrees of autonomy, which limit residents’ exposure and experience compared with previous training programs. As well, faculty who train residents may feel inadequately prepared to perform or to teach new procedures.

Many residents feel unprepared for practice and there is a high demand for additional training such as fellowships. Because of increased number of available fellowships, the Fellowship Council was formed to ensure quality and standardize post residency training; this group sponsored this study.

Purpose

To evaluate the level of preparedness of incoming fellows to FC subspecialty surgical fellowships to determine whether there are domains in which gaps in training exist that could be targeted for intervention during the final year of general surgery residency, allowing for a more successful transition to practice.

Type of paper

Research: Survey

Key Points on the Methods

The research committee of the FC (board members and program director)s defined objectives to evaluate the incoming fellow in 5 educational domains: professionalism, level of independence, psychomotor ability, clinical management and academia / scholarship. Likert scale quantitative and at least 1 reflective qualitative questions developed for each domain. They constructed an online survey of 40 questions, piloted it and sent it to all fellowship program directors, emphasizing that they should respond to the questions from the perspective of providing a global assessment of the graduates of general surgery training programs as they enter fellowship.

Key Outcomes

63% response rate after 3 reminders. Of the responding program directors, the % feeling that incoming fellows...
  • arrived unprepared for the operating room, 21%
  • demonstrated lack of patient ownership, 38%
  • could not independently perform a laparoscopic cholecystectomy, 30%
  • deemed unable to operate for 30 unsupervised minutes of a major procedure, 66%
could notatraumatically manipulate tissue laparoscopically, 30%.
could not recognize anatomical planes laparoscopically, 26%
could not suture laparoscopically, 56%
not familiar with therapeutic options, 28%
unable to recognize early signs of complications, 24%

Majority unable to conceive, design, and conduct research/academic projects. Qualitative Themes: deficits in operative autonomy, progressive responsibility, longitudinal follow-up, scholarly focus.

Key Conclusions

The authors validate ('affirm') concerns expressed by others re lack of readiness of graduates of general surgery residency training to enter independent surgical practice or benefit fully from fellowship training. (e.g. hard data re exam pass rates also shows a decline in performance.) They identified deficiencies in domains of independent practice ability, patient responsibility and some motor skills— all elements of safe effective care.

They find this unsurprising stating that general surgery residency training unable to keep pace with technological advancements.

The perceived low level of interest in academic and scholarly activities may affect the ability of practicing surgeons to accept new techniques or part with established methods, and may impede the future advancement of surgical science.

Surgical education training programs and certifying and accreditation bodies are discussing possible changes to the surgical education to produce surgical residents prepared practice or specialty fellowship. (e.g early streaming, relaxing duty hour restriction)

Key Outcomes Spare Keys – other take home points for clinician educators

There are multiple reasons for the results, should they prove true, including but not solely related to duty hour decrease (perhaps resulting in a year less training), medical school and junior residency experience in procedures, legal need for closer supervision. A single study will have trouble teasing these out.

This was a paper presented at a surgical meeting. Although not methodologically* the best way of addressing the issue, it has received a lot of attention both in surgery and in the media. Perhaps we should not believe everything we hear on the news without going back to primary data?

* Subjective, recall bias, and as response rate low - responder bias. Were the fellowship program directors the right group to survey? Data reflect experiences with only those residents (10%) entering fellowship.