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1: [Br J Ophthalmol](#). 2007 Dec;91(12):1691-4. Epub 2007 Jun 25.



Microsurgical lab testing is a reliable method for assessing ophthalmology residents' surgical skills.

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BACKGROUND: Formal assessment of clinical competencies is necessary to ensure that all residents are acquiring important skills and, in the United States, will soon become a requirement for residency programme accreditation by the Accreditation Council for Graduate Medical Education (ACGME). The Eye Surgical Skills Assessment Test (ESSAT), a laboratory-based surgical skills obstacle course, was developed in response to the need for improved tools for the assessment of surgical skills during residency. The ESSAT has previously been shown to have face and content validity, and in this study we sought to determine its inter-rater reliability and, to some extent, its construct validity. **METHODS:** Twenty-seven content experts (residency programme directors and faculty members involved with resident surgical training) watched videos of a junior resident and senior resident completing the three ESSAT stations (skin suturing, muscle recession, and phacoemulsification: wound construction & suturing technique) and completed assessment forms, both task-specific checklists and a global rating scale of performance. **RESULTS:** The ESSAT showed strong inter-rater reliability for determining whether a resident "passed" a threshold of competency at each station for both the checklists and global rating scale. In addition, for each station, the senior resident was consistently rated above a "passing" threshold using either assessment form, whereas the junior resident was more often rated below (94% vs 30% passing on completed forms). **CONCLUSION:** These results, along with the findings of our face and content validity analysis, support the reliability and validity of the ESSAT, and indicate that it could be a useful tool for improving the assessment of surgical skill during residency. The ESSAT is a tool that all residency programmes could implement as a part of their ophthalmic surgical curriculum and competency assessment, and may be useful to set a threshold of competence that all residents would need to achieve prior to entering the operating room.

Publication Types:

- [Evaluation Studies](#)
- [Research Support, Non-U.S. Gov't](#)

PMID: 17591670 [PubMed - indexed for MEDLINE]

2: [Ophthalmology](#). 2007 Apr;114(4):829-30; author reply 830.



Comment on:

- [Ophthalmology](#). 2006 Jul;113(7):1237-44.

Resident surgical competency.

[Henderson BA](#), [Ali R](#), [Kim JY](#).

Publication Types:

- [Comment](#)
- [Letter](#)

PMID: 17398335 [PubMed - indexed for MEDLINE]

3: [Am J Surg.](#) 2007 Jan;193(1):79-85.



The development of physician confidence during surgical and medical internship.

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BACKGROUND: While much research has addressed physician competency, the development of confidence has not been studied. We sought to identify which elements of internship residents feel most contributed to building their confidence. **METHODS:** By anonymous survey, University of Pennsylvania residents rated 104 internship elements for contribution to building physician confidence and reported their subjective confidence during and since internship. **RESULTS:** Two hundred ten residents in 18 specialties participated. Detailed ratings for all 104 elements are provided. Generally, independent decision-making items and good back-up support were equally highly valued, as was developing work efficiency. Poorly valued items included high patient loads, long hours, and abusive interactions. Surgical and medical residents agreed. Mean confidence increased during internship from 12 to 32 (1-100 scale) but remained in the 50s during residency for most specialties. **CONCLUSIONS:** Faculty should make informed, deliberate attempts to provide those elements identified as most fostering the development of physician confidence.

Publication Types:

- [Research Support, Non-U.S. Gov't](#)

PMID: 17188093 [PubMed - indexed for MEDLINE]

4: [Ophthalmology.](#) 2006 Dec;113(12):2364-70. Epub 2006 Oct 23.



Comment in:

- [Ophthalmology.](#) 2007 Aug;114(8):1587-8.
- [Ophthalmology.](#) 2007 Aug;114(8):1588; author reply 1588-9.

Development and face and content validity of an eye surgical skills assessment test for ophthalmology residents.

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PURPOSE: The Accreditation Council for Graduate Medical Education has called for the development of new tools for teaching and assessment in core residency competencies. Aims of this study were to respond to this mandate by developing an objective method of evaluating the surgical skills of ophthalmology residents in a microsurgery laboratory environment that could become a part of the ophthalmic surgical curriculum and competency determination, and to evaluate the face and content validity of this assessment by surveying experts in the field. **DESIGN:** Survey. **PARTICIPANTS:** Twenty-two content experts (residency program directors and faculty members involved with resident surgical training). **METHODS:** We have developed a 3-station (skin suturing, muscle recession, phacoemulsification/wound construction and suturing technique) wet laboratory surgical skills obstacle course for ophthalmology residents. Each station includes instructions to the resident for completing the task as well as assessment forms, a station-specific checklist, and a global rating scale of performance, for expert surgeons to complete while reviewing the resident's videotaped performance. To establish face and content validity, content experts were sent a detailed explanation of the assessment along with a survey to facilitate constructive feedback. **MAIN OUTCOME MEASURES:** Survey responses. **RESULTS:** Experts felt that the Eye Surgical Skills Assessment Test (ESSAT) is a useful and representative tool for assessing surgical skills of residents. Suggestions were incorporated, thus establishing

the face and content validity. **CONCLUSIONS:** The ESSAT has face and content validity. This tool will be useful for assessing residents' surgical skills in a laboratory environment and the impact of various teaching methods on performance. Further studies to establish the interrater reliability and construct validity of the ESSAT are underway.

Publication Types:

- [Multicenter Study](#)
- [Validation Studies](#)

PMID: 17056118 [PubMed - indexed for MEDLINE]

5: [Ophthalmology](#). 2006 Jul;113(7):1237-44. Epub 2006 May 24.



Comment in:

- [Ophthalmology](#). 2006 Dec;113(12):2380-1.
- [Ophthalmology](#). 2007 Apr;114(4):829-30; author reply 830.

Ophthalmology resident surgical competency: a national survey.

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PURPOSE: To describe the prevalence, management, and career outcomes of ophthalmology residents who struggle with surgical competency and to explore related educational issues. **DESIGN:** Fourteen-question written survey.

PARTICIPANTS: Fifty-eight program directors at Accreditation Council on Graduate Medical Education-accredited, United States ophthalmology residency programs, representing a total of 2179 resident graduates, between 1991 and 2000. **METHODS:** Study participants completed a mailed, anonymous survey whose format combined multiple choice and free comment questions. **MAIN OUTCOME MEASURES:** Number of surgically challenged residents, types of problems identified, types of remediation, final departmental decision at the end of residency, known career outcomes, and residency program use of microsurgical skills laboratories and applicant screening tests. **RESULTS:** One hundred ninety-nine residents (9% overall; 10% mean per program) were labeled as having trouble mastering surgical skills. All of the programs except 2 had encountered such residents. The most frequently cited problems were poor hand-eye coordination (24%) and poor intraoperative judgment (22%). Most programs were supportive and used educational rather than punitive measures, the most common being extra practice-laboratory time (32%), scheduling cases with the best teaching surgeon (23%), and counseling (21%). Nearly one third (31%) of residents were believed to have overcome their difficulties before graduation. Other residents were encouraged to pursue medical ophthalmology (22%) or to obtain further surgical training through a fellowship (21%) or a supervised practice setting (12%); these residents were granted a departmental statement of satisfactory completion of residency for Board eligibility. Twelve percent were asked to leave residency. Of reported career outcomes, 92% of residents were practicing ophthalmology, 65% as surgical and 27% as medical ophthalmologists. Ninety-eight percent of residency programs had microsurgical practice facilities, 64% had a formal teaching course, and 36% had mandatory practice time. Most programs (76%) did not perform applicant vision or dexterity screening tests; questions existed about the legality and validity of such tests. **CONCLUSIONS:** The issue of ophthalmology residents who struggle to develop surgical competency appears common. Although many problems appear to be remediable with time, practice, and dedicated, patient teachers, more specific guidelines for a statement of surgical competency are likely necessary to standardize the Board certification process.

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