1: Surv Ophthalmol. 2007 November - December;52(6):680-689.

Teaching and Assessing Systems-based Competency in Ophthalmology Residency Training Programs.

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The Accreditation Council for Graduate Medical Education (ACGME) has mandated that residency programs, including ophthalmology, teach and assess specific competencies, including systems-based learning. We review the pertinent literature on systems-based learning for ophthalmology and recommend specific "good practices" to manage the ACGME mandate. Tools are required that both teach and assess systems based learning competency simultaneously, that are reliable and valid, that have low faculty burden, and that are affordable, practical, and fair. Future research should provide evidence that these interventions produce improved educational and patient outcomes and show proof of competence in systems based learning among residents and clinicians in practice.

PMID: 18029274 [PubMed - as supplied by publisher]

2: Ophthalmology. 2007 Jul;114(7):1415-6. Epub 2007 May 1.
Comment on:
Ophthalmology. 2004 Oct;111(10):1807-12.

Assessing cataract surgical competency.

Lee AG, **Greenlee E**, **Oetting TA**, **Beaver HA**, **Johnson AT**, **Boldt HC**, **Abramoff M**, **Olson R**, **Carter K**.

PMID: 17475334 [PubMed - indexed for MEDLINE]

3: Ophthalmology. 2007 Jul;114(7):e21-6. Epub 2007 May 1.

The Iowa ophthalmology wet laboratory curriculum for teaching and assessing cataract surgical competency.

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PURPOSE: To describe an ophthalmology wet laboratory (OWL) curriculum for residents in training. METHODS: Systematic literature review and selection of best practices for use in the OWL learning plan from a single academic ophthalmology program. RESULTS: A pretest and

posttest of cognitive skills, objective wet laboratory structured assessment of skill and technique, and summative global evaluation form were developed as part of a systematic OWL curriculum. CONCLUSION: The Iowa OWL curriculum may form the basis for successfully utilizing the wet laboratory to teach and assess aspects of resident surgical competence in cataract surgery.

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4: Surv Ophthalmol. 2007 May-Jun;52(3):300-14.

Teaching and assessing professionalism in ophthalmology residency training programs.

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The Accreditation Council for Graduate Medical Education (ACGME) has mandated that all residency training programs teach and assess new competencies including professionalism. This article reviews the literature on medical professionalism, describes good practices gleaned from published works, and proposes an implementation matrix of specific tools for teaching and assessing professionalism in ophthalmology residency. Professionalism requirements have been defined by the ACGME, subspecialty organizations, and other certifying and credentialing organizations. Teaching, role modeling, and assessing the competency of professionalism are important tasks in managing the ACGME mandate. Future work should focus on the field testing of tools for validity, reliability, feasibility, and cost-effectiveness.

PMID: 17472805 [PubMed - indexed for MEDLINE]

5: Ophthalmic Surg Lasers Imaging. 2006 Sep-Oct;37(5):384-93.

Teaching and assessing surgical competency in ophthalmology training programs.

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BACKGROUND AND OBJECTIVE: The Accreditation Council for Graduate Medical Education (ACGME) has mandated implementation of six new competencies in resident training in the United States. An implementation strategy is proposed to teach and assess cataract surgical competence. PATIENTS AND METHODS: An intradepartmental Task Force for the ACGME competencies reviewed the literature for assessment tools to develop an implementation matrix for assessing surgical competence. RESULTS: "Good practices" (gleaned from the literature) were adapted for the institution's needs and tested, including (1) written and explicit goals or objectives for each stage of training; (2) substitution of a criterion-referenced (Dreyfus model) scoring rubric for a norm-referenced, peer-benchmarked global evaluation; (3) use of formative rather than summative feedback; (4) incorporation of deliberate practice (Ericsson model); and (5) portfolio-based documentation of sentinel event markers and remediation. CONCLUSION:

An implementation matrix for teaching and assessing surgical competence might be useful for local compliance with the ACGME mandate.

PMID: 17017198 [PubMed - indexed for MEDLINE]

6: Ophthalmology. 2006 Mar;113(3):505-6; author reply 506-7.
Comment on:
Ophthalmology. 2005 Jul;112(7):1236-41.

Assessing surgical skills.

Lee AG.

PMID: 16513474 [PubMed - indexed for MEDLINE]

7: Ophthalmology. 2006 Mar;113(3):497-500. Epub 2006 Feb 3.

Structured journal club as a tool to teach and assess resident competence in practice-based learning and improvement.

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PURPOSE: To describe the use of the journal club as a tool to teach and assess competency in practice-based learning (PBL) and improvement among residents in ophthalmology. DESIGN: Interventional case series. PARTICIPANTS: Ophthalmology residents. SETTING: Three academic ophthalmology residency programs in the United States. METHODS: A survey was performed of self-assessed skills in PBL among residents in ophthalmology training before and after the implementation of a structured review checklist during a traditional resident journal club. The survey had 5 domains, including (A) appraise and assimilate evidence, (B) read a journal article critically, (C) use a systematic and standardized checklist, (D) apply knowledge of study designs and statistical methods, and (E) maintain a self-documented written record of compliance. The respondents scored their ability (range, 1-5). RESULTS: The use of a structured journal club tool was associated with a statistically significant improvement in self-assessed ability in all 5 domains. CONCLUSIONS: Although validity, reliability, and long-term efficacy studies are necessary, the structured journal club is one method of teaching and assessing resident competency in PBL and improvement.

PMID: 16458971 [PubMed - indexed for MEDLINE]

8: Surv Ophthalmol. 2005 Nov-Dec;50(6):542-8.

Using the Journal Club to teach and assess competence in practice-based learning and improvement: a literature review and recommendation for implementation.

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The traditional journal club has historically been used to teach residents about critically reading and reviewing the literature in order to improve patient care. The Accreditation Council for Graduate Medical Education competencies mandate requires that ophthalmology residency programs both teach and assess practice-based learning and improvement. A systematically conducted review of the literature regarding the use of the journal club in resident medical education was performed to define specific recommendations for implementation of a journal club tool. Selected best practices for a successful journal club were gleaned from the existing medical literature. These include the following: 1) the use of a structured review checklist, 2) explicit written learning objectives, and 3) a formalized meeting structure and process. The journal club might prove to be an excellent tool for the assessment of competencies like practice-based learning which may be difficult to assess by other means. Future study is necessary to determine if journal club can improve educational outcomes and promote lifelong competence in practice-based learning.

PMID: 16263369 [PubMed - indexed for MEDLINE]

9: Ophthalmology. 2005 Jul;112(7):1242-6.

Assessment of ophthalmology resident on-call performance.

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PURPOSE: To design and implement a valid tool for assessment of ophthalmology resident on-call performance. DESIGN: Retrospective chart audit. SETTING: Tertiary care academic ophthalmology programs. PARTICIPANTS: Ophthalmology faculty and residents at the University of Cincinnati and the University of Iowa. METHODS: A 1-page on-call assessment tool (OCAT) and scoring rubric were developed to evaluate ophthalmology resident on-call performance. A retrospective chart audit of consecutive resident on-call charts was performed at the University of Cincinnati and the University of Iowa, and resident performance was scored using the OCAT. RESULTS: A consensus of faculty comments established the face and content validity of the OCAT. One hundred ninety-one on-call consultations were assessed. Timeliness of consultation was the most common category receiving a borderline or unsatisfactory rating. Borderline ratings in knowledge-based categories (history, examination, assessment and plan, urgency rating) occurred more often for postgraduate year 2 (PGY2) residents than for PGY3 residents (P = 0.05, chi-square test). Incomplete differential diagnosis (n = 6) and lack of follow-up instruction (n = 5) were the most common deficiencies observed. CONCLUSIONS: The OCAT has face, content, and discriminative validity. It can be used to assess resident competence

in patient care, professionalism, and medical knowledge. Interrater and intrarater reliability still need to be determined. The OCAT may prove to be an additional assessment tool for meeting the Accreditation Council for Graduate Medical Education competencies mandate.

PMID: 15921753 [PubMed - indexed for MEDLINE]

10: Ophthalmology. 2004 Oct;111(10):1807-12.
Comment in:
Ophthalmology. 2005 Jul;112(7):1323; author reply 1324.
Ophthalmology. 2007 Jul;114(7):1415-6.

Managing the new mandate in resident education: a blueprint for translating a national mandate into local compliance.

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OBJECTIVE: The Accreditation Council for Graduate Medical Education (ACGME) has mandated that all residency programs implement an assessment process of 6 core competencies. Assessment of surgical competence is also included in the mandate. We describe our local efforts to meet this new mandate. DESIGN: Systematic literature review. METHODS: A systematic MEDLINE search (1996-2003) of the literature on residency assessment tools was performed. All relevant titles were reviewed by a content expert, abstracts were selected, and all appropriate full articles were reviewed. The Department of Ophthalmology at the University of Iowa formalized the competency review process by forming an ad hoc departmental task force for "Meeting the Competencies" composed of clinicians, technical staff, education specialists, the program director, the director of residency curriculum, the medical student director, and residents. RESULTS: The task force reviewed the available literature, reviewed potential best practices, and reached consensus on an implementation plan. The following specific criteria for the assessment process were proposed: (1) there should be multiple assessments by multiple observers using multiple tools at multiple time points, (2) the tools should be reliable, reproducible, and valid; (3) the tools must be practical (i.e., feasible, convenient, low time commitment, easy to use, and inexpensive to implement and maintain); (4) the tools must produce qualitative and quantitative data, with direct linkage to improvement in educational outcomes in the future; (5) the assessment process must be linked to explicit and public learning objectives; and (6) the grading scale should be open and clearly defined, and the process should be judged as fair and accurate by both faculty and residents. The Meeting the Competencies task force reviewed all of the available tools from the literature and recommended a pilot implementation matrix matching specific tools to individual competencies. The 6 pilot tools include (1) written and oral examinations, (2) a 360 degrees global evaluation form (using multiple observers from different perspectives, including nurses, technicians, fellow residents, and patients, to provide a wider assessment), (3) a resident portfolio, (4) direct observation of operative performance and clinical examination, (5) a phone encounter tool, and (6) a journal club tool. CONCLUSION: We propose a potential blueprint for meeting the challenge of assessing the new ACGME competencies in ophthalmology and translating the national mandate into local compliance.

PMID: 15465540 [PubMed - indexed for MEDLINE]

11: Ophthalmology. 2004 Jul;111(7):1269-70.

The impact of the new competencies on resident education in ophthalmology.

Lee AG, **Volpe N**.

PMID: 15234124 [PubMed - indexed for MEDLINE]

12: Am J Ophthalmol. 2004 Jan;137(1):206-7.

Using the American Journal of Ophthalmology's website for assessing residency subcompetencies in practice-based learning.

Lee AG.

PMID: 14700680 [PubMed - indexed for MEDLINE]

13: Surv Ophthalmol. 2003 Nov-Dec;48(6):651-62.

The new competencies and their impact on resident training in ophthalmology.

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Changes in the health care environment and the evolving needs of external stakeholders have created a demand for a new set of competencies in residency training. This article reviews the forces that have shaped the development of the new competencies; defines the specific Accreditation Council for Graduate Medical Education competencies; describes the tools that might be used to measure these competencies; introduces current concepts and terms in the field of post-graduate medical education; and summarizes an implementation plan for ophthalmology. Meeting the new Accreditation Council for Graduate Medical Education competencies will require the development of a toolbox for measurement outcomes and a reinvention of the residency training process in ophthalmology. A coordinated, thoughtful, and standardized effort will be required to meet the challenge.

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