Residents’ proficiency in diagnostics with all ophthalmic equipment – Need of the hour

Dear Editor,

From the days of Sushruta until now, ophthalmic surgery has undergone a sea change.[1] Therefore, it is no wonder that ophthalmic surgery in the 21st century is aided by advancement in technology. More than first-class technical skill, an excellent judgement is required when performing an operation to achieve optimum result. A good surgeon is one who knows how to operate. A better surgeon is one who knows when to operate, but the best surgeon is one who knows when not to operate.[2] Proper diagnostics for the preoperative management of any patient are an essential part of a continuum of care that extends from the surgeon’s initial consultation through patient’s full recovery.[3]

Competency is defined as “the ability to do something successfully and efficiently.”[4] All residency programs should be committed toward a competency-based curriculum, which trains budding surgeons in ways that focus on the development of competencies, and continues until the desired competency is achieved.[5] The successful and efficient handling of diagnostic equipment are critical for the preoperative management of patients undergoing ophthalmic surgery, and the role of competency-based curriculum and training cannot be overemphasized in this regard.

Residents of today are the ophthalmologists of tomorrow, and a correct amount of handholding shapes them into competent clinicians. What, then, is the extent to which ophthalmic residency programs should train their residents in the handling of diagnostic equipment? The national curriculum for ophthalmology residency training India includes a list of common instruments, the knowledge of which would help the ex-residents-turned-consultants in their independent or institutional setups.[6] However, very few residency-training institutes have “all” gadgets, and this is true even for developed nations.

We recommend that residency programs must first aim for maximum surgical and clinical skill training within the limitations of the institutes. They must then compensate for the nonavailability of these instruments through collaboration between institutes and rotation of residents between their own setups and higher centers for developing first, a sense of orientation toward the length and breadth of ophthalmic diagnostics, and then, specific competencies for each ophthalmic instrument including the cognitive and technical skills required by a comprehensive ophthalmologist. These may be classified into basic-level goals (PG year [PGY] 1), standard-level goals (PGY 2), and advanced-level goals (PGY 3).[6]

It is least expected of a trainee ophthalmologist to acquire proficiency in a day. In fact, it is a long process shown by the Miller’s pyramid: where the trainee first knows, knows how, then shows how, and then does a task.[7] Given the limited period for which residency programs enroll trainees, there is increasing need for an extra push from the faculty of training institutions. We suggest that this process is augmented by imparting concurrent knowledge of instruments, involvement of residents during instrument demonstrations in-house and during conferences, allowing an open environment to clear doubts, training to handle instruments under supervision, teaching the correct method, common errors and precautions, and continuation of supervision and guidance with effective feedback till proficiency is attained for independent handling.

What are the advantages thus gained? This training allows residents to share the workload of consultants, and dependence on specific trained personnel to handle instruments is removed. This is especially beneficial for prompt service in emergency conditions, such as B-scan ultrasonography in an emergency room, or missed biometry when a patient has been scheduled for cataract surgery. It also empowers them to train their own personnel later in life with the confidence required for routine clinical practice.

In summary, it is prudent to think of residency training as a machine, wherein the input consists of residents and infrastructure with all necessary instruments, a process wherein training and use of all instruments is ensured during the period of residency, and the output, which is a good quality resident surgeon proficient in diagnostics. The responsibility of teachers is to challenge their limits, and not limit their challenges. We therefore implore that residents’ proficiency in diagnostics with all ophthalmic equipment is a need of the hour.
Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

Sony Sinha, Prateek Nishant¹, Rajvardhan Azad²

Department of Ophthalmology, Patna Medical College, Patna, Bihar, ¹Department of Ophthalmology, All India Institute of Medical Sciences, Patna, Bihar, ²Vitreoretinal Services, Regional Institute of Ophthalmology, Indira Gandhi Institute of Medical Sciences, Patna, Bihar, India

Correspondence to: Dr. Prateek Nishant, Flat no. 201, Sharda Enclave, Plot no. 213A, Sahdeo Mahto Marg, Shrikrishnapuri, Patna - 800 001, Bihar, India.
E-mail: nishant.p1110@gmail.com

References
1. Mehta H. Extracapsular cataract removal pioneered by Sushruta. J Cataract Refract Surg 2011;37:1365.
2. Jackson B. What makes an excellent surgeon? Obes Surg 2019;29:1087-9.
3. Cassidy MR, McAneny D. Preoperative preparation. In: Doherty GM, editor. Current Diagnosis and Treatment: Surgery. 15th ed. NY (USA): McGraw Hill; 2020.
4. Soanes C, Stevenson A, editors. The Oxford Dictionary of English. Revised Edition. Oxford (UK): Oxford University Press; 2005.
5. Shah N, Desai C, Jorwekar G, Badyal D, Singh T. Competency-based medical education: An overview and application in pharmacology. Indian J Pharmacol 2016;48(Suppl 1):55-9.
6. Grover AK, Honavar SG, Azad R, Verma L. A national curriculum for ophthalmology residency training. Indian J Ophthalmol 2018;66:752-83.
7. Miller GE. The assessment of clinical skills/competence/ performance. Acad Med 1990;65(9 Suppl):S63-7.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

| Access this article online |
|---------------------------|
| Quick Response Code:      |
| Website:                  |
| 10.4103/ijo.IJO_980_21    |

Cite this article as: Sinha S, Nishant P, Azad R. Residents’ proficiency in diagnostics with all ophthalmic equipment – Need of the hour. Indian J Ophthalmol 2021;69:1966-7. © 2021 Indian Journal of Ophthalmology | Published by Wolters Kluwer - Medknow