## Commentary: Preventing endophthalmitis after cataract surgery: An update

Phacoemulsification with intraocular lens (IOL) implantation has become one of the most successful procedures globally, with satisfying results both for the patients and the surgeon. The presented analysis of over 2.4 lakh cases undergoing cataract surgery to assess the efficacy of different methods to prevent post-cataract surgery endophthalmitis is an immense effort by the authors, [1] and it proves the importance of preventing this catastrophic complication. Apart from appropriate techniques for operation theater sterilization, cleaning and draping the patient, preoperative iodine instillation, and intraoperative or immediate postoperative antibiotic (intracameral or subconjunctival) administration, [2] there are certain factors that can also greatly impact the incidence of post-surgical endophthalmitis.

One of the important steps in preventing iatrogenic infections is to be mindful of the maximum capacity of the operating room, staff, and the surgeon themselves. There should not be an effort to overbook the operating room so that there is adequate time for each patient and the surgeon/ staff are not pushed to rush and reduce the turnaround time between cases. The surgeons and staff should engage in benchmarking their operating room standard and set goals for first case on-time start, surgical prep time, exit lag, turnover time, and turnaround time. [3-5] Having an operating room manager or surgical scheduler can help schedule appropriate cases in the operating room based on the difficulty level and surgeon experience level (resident versus fellow/consultant). These parameters can help surgeons optimize their operating time and improve efficiency without compromising on safety.

One aspect that must be highlighted in the context of preventing surgical infections is the importance of wound construction. Improper/hasty wound construction, including avoiding jagged wound edges, and premature corneal entry should be avoided. These can result in a potential pathway for aqueous leakage and entry of microorganisms. Each wound should be thoroughly checked with a wick sponge after the chamber is fully formed at the end of the surgery. [6] If there is a doubt, it is better to apply the sutures, even if it takes extra time and effort.

Several authors, societies, and national taskforces are engaged in constantly highlighting the importance of keeping operating room infections as low as possible. Recently, the All India Ophthalmology Society (AIOS) also prepared guidelines to prevent post-surgical endophthalmitis.<sup>[7]</sup> A multi-disciplinary approach by ophthalmologists, nursing staff, schedulers, sanitary workers, microbiologists, and other clinician-scientists from the hospital/institute is necessary to achieve these goals.

## Aniruddha Agarwal<sup>1,2,3</sup>

<sup>1</sup>Department of Ophthalmology, Eye Institute, Cleveland Clinic Abu Dhabi, Al Maryah Island, Abu Dhabi, UAE, <sup>2</sup>Department of Ophthalmology, Cleveland Clinic Lerner College of Medicine, Case Western Reserve University, Cleveland, OH, USA, <sup>3</sup>Department of Ophthalmology, University of Maastricht Medical Center+, Maastricht, The Netherlands

Correspondence to: Dr. Aniruddha Agarwal, Associate Staff Physician, Vitreoretina and Uveitis, Department of Ophthalmology, Cleveland Clinic Abu Dhabi, Al Maryah Island, Abu Dhabi, UAE. E-mail: aniruddha9@gmail.com

## References

- Reddy JK, Sundaram V, Dani S, Shah N, Ingawale A, Pooja CM. Comparison of different endophthalmitis prophylactic measures in cataract surgery - An analysis of 2.4 lakh cases. Indian J Ophthalmol 2022;70:4000-2.
- Park J, Popovic MM, Balas M, El-Defrawy SR, Alaei R, Kertes PJ. Clinical features of endophthalmitis clusters after cataract surgery and practical recommendations to mitigate risk: Systematic review. J Cataract Refract Surg 2022;48:100-12.
- Kang JM, Padmanabhan SP, Schallhorn J, Parikh N, Ramanathan S. Improved utilization of operating room time for trainee cataract surgery in a public hospital setting. J Cataract Refract Surg 2018;44:186-9.
- 4. Umali MIN, Castillo TR. Efficiency of operating room processes for elective cataract surgeries done by residents in a National University Hospital. Clin Ophthalmol 2020;14:3527-33.
- Foster T. Data for benchmarking your OR's performance. OR Manager 2012;28:13-6.
- Yannuzzi NA, Si N, Relhan N, Kuriyan AE, Albini TA, Berrocal AM, et al. Endophthalmitis after clear corneal cataract surgery: Outcomes over two decades. Am J Ophthalmol 2017;174:155-9.
- Verma L, Agarwal A, Dave VP, Honavar SG, Majji AB, Lall A, et al. All India Ophthalmological Society (AIOS) Task Force guidelines to prevent intraocular infections and cluster outbreaks after cataract surgery. Indian J Ophthalmol 2022;70:362-8.

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.



Cite this article as: Agarwal A. Commentary: Preventing endophthalmitis after cataract surgery: An update. Indian J Ophthalmol 2022;70:4003.