

ANALYSIS OF PERSPECTIVES AND RESIDENT EDUCATION ON MANUAL SMALL INCISION CATARACT SURGERY AT A "SAFETY-NET" HOSPITAL AFFILIATED WITH A U.S. OPHTHALMOLOGY RESIDENCY

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Introduction

Manual small-incision cataract surgery (MSICS) is a valuable technique in treating cataracts worldwide. While its comparable visual outcomes, sustainability, and better cost-effectiveness make it a mainstay of treatment in low-resource settings, its application in complex and advanced cataracts and utilization in surgical conversion highlight its utility across all other settings. In this study, we assess the variability in current MSICS education.

Methods

A retrospective chart review of MSICS cases performed at the University of Colorado from July 2020 - June 2023 was conducted using ICD-10 procedure codes, and 59 unique cases were found. Relevant information collected included surgery date, case length, attending surgeon, and resident surgical role. This data was analyzed through calculations of means, medians, and percentages appropriate for all datapoints.

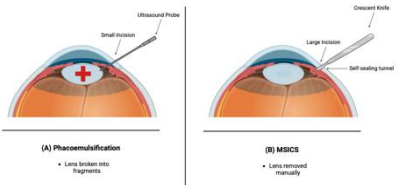


Figure 1: Phacoemulsification vs MSICS

Results

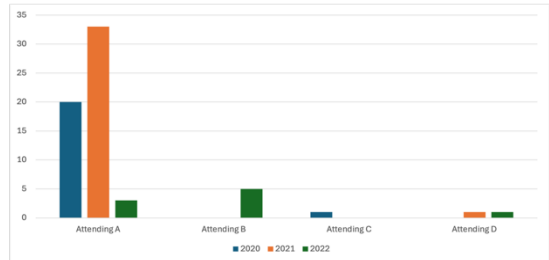


Figure 2: Number of MSICS surgeries by Attending & Year
 # of MSICS cases done by Attending A far exceeded all others. There is a steep drop-off in the number of MSICS cases done after 2021.

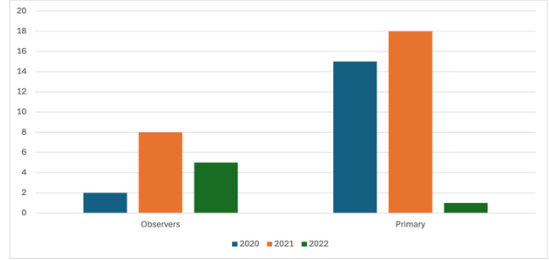


Figure 3: Number of MSICS Surgeries by Residents & Year
 Most residents were primary surgeons for MSICS cases in 2020-2021. In 2022, there was a stark drop-off in MSICS cases residents were part of.

Results (cont.)

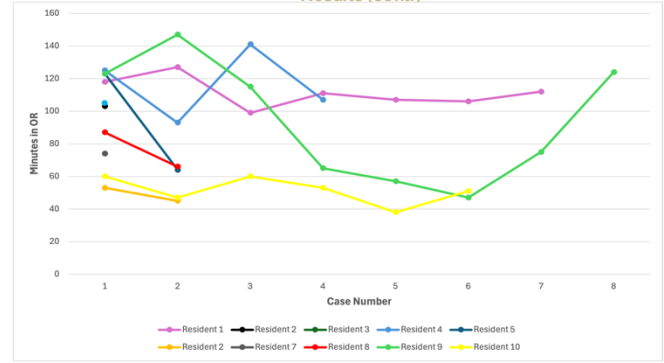


Figure 4: OR Time by Resident & Case Number for Primary Surgeries
 OR time did decrease by case number for resident surgeries, but this decrease was not statistically significant with a p-value of 0.68.

Conclusions and Future Directions

- At the University of Colorado, the number of MSICS cases performed was very dependent on the supervising attending.
- The number of cases a resident is involved in was variable throughout the years included in this study.
- Future directions should involve resident perspectives on current MSICS education and whether or not they would like to learn the procedure