In hospitals systems across the country, quality and safety are frequently emphasized and quality measures in these areas are publicly reported. However, there is no widely accepted patient safety checklist recommended for use in ophthalmic surgery in the United States. In addition, physicians are required to undergo continuing education exercises and obtain other certification credits from the American Board of Ophthalmology in order to remain board certified. This presented with an opportunity to address the lack of an approved surgical quality and safety checklist while also providing our physicians a way to obtain maintenance of certification credit.

We hoped to improve patient safety and surgical quality by improving surgical teams’ levels of adherence to the checklist items over time through educational interventions and incentives. The University of Michigan agreed to sponsor our physicians’ applications for maintenance of certification credit for participating in this quality improvement initiative.

Purpose

- We planned to develop and utilize a new surgical checklist for use in the Department of Ophthalmology and Visual Sciences’ operating rooms.
- We used existing literature and our physicians’ experience to determine items to be included on the checklist.

Methodology

- Phase I: Data were collected from all ophthalmic surgeries in the department for one week in order to obtain a baseline measurement of performance without use of the checklist.
- Phase II: Surgeons and staff were notified that the new checklist was being posted in all ophthalmology operating rooms and data on performance were collected for two months.
- Analysis I: Adherence measures were compared from Phases I and II and results shared with surgical teams.
- Phase III: Surgeons and staff received further educational information about the checklist procedures, and monetary incentives ($5 per week that all debrief forms were completed by each circulating nurse) were given to OR staff for completing debrief forms. Data were collected for an additional two months.
- Analysis II: Adherence measures were compared across all Phases and results shared with surgical teams.

Results

- We found statistically significant differences in rates of adherence between all three phases (Table 1). In all areas, rates fell from Phase I to Phase II, and subsequently rose from Phase II to Phase III.
- During Phase I, debrief forms were filled out for 90% of cases. This number fell to 71% during Phase II before rising to 82% during Phase III.
- For those cases with completed debrief forms, between 87% and 90% had completed Pre-Op, Pre-Brief, Pre-Anesthesia, and Time-Out items in Phase I. These numbers fell to 85%–86% during Phase II, and rose significantly to 97% during Phase III.
- IOL confirmation data was not successfully collected during Phase I, but was collected during Phases II and III. For those cases where IOL confirmation was applicable, IOL was confirmed 86% of the time in Phase II and 98% of the time during Phase III.

Conclusion

- Through implementation of a surgical checklist, we achieved improved adherence to its six main components, thus improving patient safety in the operating room.
- Projects such as ours can help educate participating physicians and medical team members about quality improvement.
- Our initiative also allowed our ophthalmologists to maintain their certification in a way that captured the essence of medical competency.
- We plan to collect data once more to assess the department’s continued adherence to the checklist.