Implementation of an Ophthalmology Focused Quality Improvement Curriculum at Kresge Eye Institute

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INTRODUCTION

• Quality improvement (QI) projects are becoming an increasingly popular method by which we can improve the efficiency and safety of our health care services for our patients as the demand for medical services continues to rise.

• The ACGME requires that ophthalmology residents receive exposure and demonstrate competence in QI methods via systematic analysis of currently existing practice models.

• Previous studies have shown that the successful implementation of quality improvement projects by residents require:
  • Formal teaching of residents about quality improvement and analysis such as the PDSA (Plan, Do, Study, Act) cycle.
  • Providing a diverse opportunity for residents to participate in quality improvement projects.

• To help prepare our residents, we have developed and are implementing our first QI curriculum at the Kresge Eye Institute (KEI) in Detroit, MI.

METHODS

• All KEI residents were split up into 7 teams of 3 composed of one ophthalmology resident per year, PGY 2 - 4, per team.

• To provide the resident teams with the best opportunity for completion of a successful project, each team will be given one hour of grand rounds time per week on average to meet with their team/implement their projects.

• Residents are also provided resources on conducting quality improvement projects, as well as access to a faculty advisor.

• April 2021: A QI summit will serve as a platform for teams to present a summary of their initiatives, analyze effectiveness, and suggest curriculum improvements.

TIMELINE

•· July 15th 2020 – Intro to QI lecture

• August 15th 2020 – Residents teams submitted their requested topic and mentor.

• September 1st 2020 – Topics finalized

Phase 1
Sept. 1st – Dec. 15th, 2020 – IRB submission, curriculum execution and analysis.

Phase 2
March 25th – Sept. 1st, 2021 – QI Summit submission (April), presentation (May). Curriculum extension proposals vs. new QI initiatives submission (August).
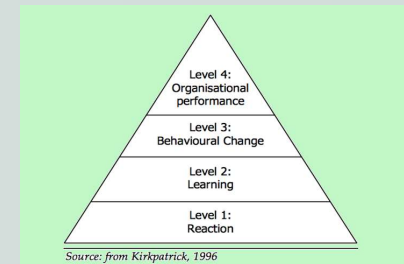
Phase 3
Sept 1st – Dec 15th, 2021 – Second Round execution vs. New Project implementation

CURRENT PROJECTS

• Prevention of Emergent Exposure Keratopathy in MICU patients by utilizing prophylactic ocular lubrication.

• Improving KEI First-Year Resident Clinic efficiency by analyzing current clinic workflow and no show rates.

• Analysis of the new First Year Reading Schedule.

• Improvement on bedside imaging for patients with corneal pathology using Xenvo Pro Lens Kit for smartphones.

• Analyzing the American Academy of Ophthalmology Preferred Practice Patterns for Primary Open-Angle Glaucoma patients by current residents.

• Evaluating the need for a Night Float for Ophthalmology.

• Increasing awareness regarding Resident Burnout.

RESULTS

• The effectiveness of this new addition to the ophthalmology curriculum at KEI will be judged by the Kirkpatrick Pyramid for program evaluation.

• Analysis of end of the surveys on resident satisfaction, lessons learned, results.

• The broader impact of this curriculum will be evaluated by looking at each resident's group projects, and the effect it had on KEI residents and patient population at the QI Summit.

Level 4: Organisational performance
Level 3: Behavioural Change
Level 2: Learning
Level 1: Reaction

Source: from Kirkpatrick, 1996

CONCLUSIONS

• The QI Summit in April 2021 will serve as an opportunity for the residents to share the results of their projects with each other, as well as KEI faculty and staff.

• We anticipate this quality improvement curriculum to positively impact both resident education and patient care moving forward..

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