

## ABO NON-CLINICAL IMPROVEMENT IN MEDICAL PRACTICE ACTIVITY

### Topic

<b>Title of Project:</b>	Improve the Percentage of Functionally Monocular Patients at the Dean McGee Eye Institute
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### Project Description

<p>Describe the quality gap or issued addressed by this activity. (Included in your response to this question should be a description of the resources that informed your decision to pursue this topic, a description of what the literature says about the issue you identified, and the rationale for choosing to address this clinical project.</p>	<p>There are almost 2.5 million eye injuries annually in the US. The AAO Preferred Practice Patterns for Amblyopia recommends that all patients with unilateral visual acuity <math>\leq 20/50</math> in the amblyopic eye be prescribed protective eyewear. We have modified that to include <math>&gt; 2</math> lines of intraocular difference in order to capture non-amblyopic patients who would similarly benefit from protective eyewear. Injury to the better-seeing eye in functionally monocular individuals may produce profound decreases in quality of life, personal health, and economic stability and productivity. Different interventions will be employed in attempt to improve compliance.</p>
<p><b>Background Information:</b> The month you pulled the baseline IRIS performance report and any additional information that me be pertinent:</p>	N/A
<p><b>Project Setting:</b> (Please select from options below):</p> <ul style="list-style-type: none"> <li>• Group Practice</li> <li>• Healthcare Network</li> <li>• Hospital</li> <li>• Multi-Specialty Group</li> <li>• Solo Practice</li> <li>• Surgical Center</li> <li>• Other</li> </ul>	<p>Group Practice</p> <p>Multi-Specialty Group</p> <p>Academic Department</p>
<p><b>Study population:</b> (describe the type of patient for whom the care process will be improved, e.g., all patients in your practice, patients with diabetes, patients presenting for emergency care:</p>	<p>Patients seen at DMEI with VA of <math>\leq 20/50</math> in one eye and <math>&gt;2</math> lines intraocular difference with qualifying diagnoses for organic causes of visual loss.</p>

**Quality Indicators / Performance****Measures:**

It is important to carefully define outcome or performance measures that will be quantified at baseline (before the care process is changed) and at re-measurement (after you have implemented the proposed improvement) to quantify the impact of your care process change. There are two basic types of performance measures - process of care measures and outcomes of care measures.

- Process of care measures (e.g. timely treatment of diabetic retinopathy) can influence outcome measure (e.g. decreased risk of severe vision loss);
- Outcome measures can be linked to processes of care that can be improved. Generally, performance measures are expressed as rates, often as percentage rates. For example, if the intent of a project is to improve the quality of glaucoma care in your practice, you may choose to improve your rate of establishing a goal IOP in patients with newly diagnosed glaucoma, measured over a 3-month period.
- The numerator of this process measure would be the number of newly diagnosed patients during this time who have a goal IOP recorded in the medical record.
- The denominator would be the total number of patients diagnosed during that same time period.

Continuous variables (e.g. the refracted spherical equivalent after cataract surgery) can often be simplified and transformed then into percentage rates by setting a quality threshold (within 0.5 diopters in the intended spherical equivalent) which, if attained, would qualify the patient to be in the numerator (e.g. number of patients within 0.5 diopters / total number of patients). It can be advantageous but not mandatory to have more than one quality measure in order to gauge the impact of your process change. In the example above, an additional outcome measure might be the percentage of patients in whom the goal IOP is attained within the first 6 months after diagnosis. If possible, measure quality indicators for at least 30 individual patients or data points during the baseline and again during the follow up period.

**Measure Type:** Outcome**Measure Name:** Qualifying Patients**Numerator Statement:** Patients seen at DMEI with VA of < 20/50 in one eye and >2 lines intraocular difference with qualifying diagnoses for organic causes of visual loss**Denominator Statement:** Total number of qualifying patients as described above.

We realize that this may not be feasible or appropriate for all projects. Please indicate at least one measure below; either a process or outcome measure:

**Example Measure:**

- . Measure Type: Process Measure
- . Measure Name: Patient pain level during intravitreal injection
- . Numerator Statement: Number of patients in who pain levels decreased by 2 points on a 1-10 scale
- . Denominator Statement: 30 consecutive patients undergoing intravitreal injection.

<p><b>Project Interventions:</b>  Quality improvement requires that you analyze your care delivery processes and identify changes, which if implemented, will improve care and outcomes. Generally, educational interventions are thought to be weak and demonstrate little impact. The introduction of tools, strategies or systematic approaches to care delivery is more powerful. A tool is a thing, for example a preoperative checklist, or written standardized process or protocol. Strategies include changes in procedures or policies like the introduction of a surgical time out before surgery is initiated. Systematic approaches to care delivery involve a comprehensive analysis of care process and the introduction of a combination of tools and strategies designed as a complete process. Please describe the changes to your care processes you intend to introduce:</p>	<ul style="list-style-type: none"> <li>● <b>Intervention 1:</b>  EHR reminders for qualifying patients to prescribe IRLs; stickers placed on computer terminals with reminders.</li> <li>● <b>Intervention 2:</b>  Default all EHR glasses prescriptions to IRLs for selected providers.</li> <li>● <b>Intervention 3:</b>  Default all EHR glasses prescriptions to IRLs for ALL providers.</li> </ul>
<p><b>Project Team:</b>  (include roles for yourself and all members of your team):  List the individuals who will be involved in your quality improvement project (i.e., solo project, partners in practice, office staff, OR personnel, anesthesiologists) and the roles they will contribute.</p>	<p>The Principal Investigator, Project Developer, and Coordinator</p>
<p>Will any other ophthalmologists be requesting MOC credit for participation in this SD-PIM?</p>	<p>Participating physicians in group practice participating in Maintenance of Certification who requested ABO credit.</p>

## Project Outcomes/Results

<p><b>Project Summary</b></p>	<p>In the following sections, please prepare a brief summary of the project highlighting the data collected, effectiveness of your measurement approach, interventions, and the overall impact of the project.</p>
<p><b>Baseline Data:</b> Quantify each of the quality indicators / performance measures described above for the baseline period (before interventions for improvement were introduced). Report the numerator, denominator and the calculated percentage rate for each measure.</p>	<p><b><u>Baseline data over 12-month period:</u></b> 169 qualifying patients received IRL rx / 374 total qualifying patients = <b><u>45.2%</u></b></p>
<p><b>Follow-up Data:</b> Quantify each of the quality indicators / performance measures described above for the re-measurement period (the period following implementation of the interventions for improvement).</p>	<p><b><u>Intervention 1: reminders over 5-month period:</u></b> 63 qualifying patients received IRL rx / 113 total qualifying patients = 55.8%</p> <p><b><u>Intervention 2: default EHR to IRLs for Certain providers over 2-month period:</u></b> Default group: 13 qualifying patients received IRL rx / 24 total qualifying patients = <b><u>54.1%</u></b></p> <p>Non-default group: 4 qualifying patients received IRL rx / 15 qualifying patients = 26.6%</p> <p><b><u>Intervention 3: Default EHR to IRLs for ALL providers over 6-month period:</u></b> 56 qualifying patients received IRL rx / 81 total qualifying patients = <b><u>69.1%</u></b></p>

## Project Impact

<p>Compare the baseline data to the re-measurement / follow-up data and quantify the impact of the process of care changes (your project interventions). The project hopefully resulted in improvement; however, some projects may result in a diminution in quality. If a lack of improvement or reduction in quality occurred, suggest other strategies that might be more effective.</p>	<p>In this large-scale computer-based QI study we were able to improve overall physician compliance for prescription of IRLs in functionally monocular patients by over 50%. Our faculty and resident physicians are much more aware of this need. Although our improvement rate is significant, it is not where we want it to be. We are employing additional reminder techniques and intend to embed them in a new EHR system over the next several years. In addition, we are exploring the development of refraction clinics, as well as direction of patients to online vendors and stores such as Home Depot for less expensive Plano IRLs.</p>
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## Project Reflection

Did you feel the project was worthwhile, effective?	YES
How might you have performed the project differently?	See Above
Please offer suggestions for other ophthalmologists undertaking a similar project.	N/A