

ABO NON-CLINICAL IMPROVEMENT IN MEDICAL PRACTICE ACTIVITY

Topic

Title of Project:	Tracking ICL Outcomes in the United States Army
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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>Numerous surgeons in the US Army are performing ICL surgery however the outcomes are not being tracked. There is a need to track ICL outcomes in the US Army.</p>
<p>Background Information: The month you pulled the baseline IRIS performance report and any additional information that me be pertinent:</p>	<p>Visian ICL is a refractive procedure commonly used in the military as an alternative to LASIK or a surface ablation procedure. Approximately 7,000 ICLs have been placed by Army Ophthalmologists since 2007, and little data is available showing the outcomes. Initial data was collected, however overtime surgeons have stopped tracking results.</p>
<p>Project Setting: (Please select from options below):</p> <ul style="list-style-type: none">• Group Practice• Healthcare Network• Hospital• Multi-Specialty Group• Solo Practice• Surgical Center• Other	<p>Group Practice</p>
<p>Study population: (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>All patients in the US military that undergo refractive surgery.</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: Process**Measure Name:** ICL case outcome reported.**Numerator Statement:** Number of ICL surgeries with outcome data reported.**Denominator Statement:** 100 consecutive ICL surgeries.**Measure Type:** Outcome**Measure Name:** Uncorrected visual acuity.**Numerator Statement:** Number of eyes with uncorrected visual acuity 20/40 or better with post-operative month one.**Denominator Statement:** 100 consecutive ICL surgeries.**Measure Type:** Outcome**Measure Name:** Complications after ICL surgery.**Numerator Statement:** Number of complications that occur after ICL surgery at 3 months (cataract formation, corneal edema, narrow angle closure).**Denominator Statement:** 100 consecutive ICL surgeries.

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>Project Interventions: 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>	<p>A standardized form will be created and distributed to all Army refractive surgeons to track ICL outcomes. As Army Refractive Consultant to the Surgeon General, I will create written policy to enforce reporting of outcome data and it will be collected quarterly.</p>
<p>Project Team: (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>Refractive Surgery Consultant: Create and distribute tracking sheet, create policy, and collect data quarterly.</p> <p>Army Ophthalmology Consultant: Enforce policy and review outcomes.</p> <p>Army Ophthalmologist: Helping track data from his facility and guiding other facilities Army Refractive Surgeons (~30): Track and provide outcome data.</p>
<p>Will any other ophthalmologists be requesting MOC credit for participation in this SD-PIM?</p>	<p>Yes; two ophthalmologists who received credit for participation.</p>

Project Outcomes/Results

Project Summary	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.
Baseline Data: 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.	No data. Each surgeon tracked their own outcomes but did not report to the Refractive Surgeon Consultant. No written policy to report outcomes.

<p>Follow-up Data: 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>Most (4,135; 87.4%) phakic IOL procedures occurred in Army facilities, with fewer in Navy (310; 6.6%), Joint facilities (154; 3.3%), Air Force (131; 2.7%), and National Guard (2; <1%) facilities. Most procedures occurred within the US (4657; 98.4%), with few procedures occurring at DoD facilities outside US (75; 1.6%). Of the 4759 phakic IOL procedures, 60% were performed on active duty personnel. Post-procedure diagnoses, incidence, and 95% Confidence interval (CI): Glaucoma 20 of 3909 patients (0.5%) CI 0.3%-0.8%; Cataract 71 of 3792 patients (1.9%) CI 1.5%-2.4%; Corneal change (unspecified) 6 of 3914 patients (0.2%) CI 0.1%-0.3%; Refractive error 80 of 3867 patients (2.1%) CI 1.7%-2.6%.</p> <p>Written policy was created to report ICL outcomes.</p>
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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>ICL complication rates in the DOD were identified (at least a rough estimate) and written policy was implemented to report ICL outcomes. Funding was denied for an outcome database or improved electronic health record to continue tracking outcomes.</p>
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Project Reflection

<p>Did you feel the project was worthwhile, effective?</p>	<p>YES</p>
<p>How might you have performed the project differently?</p>	<p>If I completed the review again, I would have worked with our highest volume ICL center and review their surgical outcomes. After reviewing their data, I would compare it to a small volume center.</p>
<p>Please offer suggestions for other ophthalmologists undertaking a similar project.</p>	<p>When starting a new procedure, I would create a database or file and track results/outcome from the beginning. We were able to anticipate this with cross-linking, so we started tracking and determined the information we wanted to track prior to starting the procedures.</p>