**ABO IMPROVEMENT IN MEDICAL PRACTICE ACTIVITY**

**(CLINICAL)**

**Topic**

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| **Title of Project**: | Assessment of Osteoporosis/Osteopenia Risk and Development of Mitigation Strategy for Patients Taking Oral Corticosteroids for Uveitis |

**Project Description**

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| 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 | Patients with uveitis requiring long-term system therapy are typically started on short-term, tapering dose of oral corticosteroids and then a steroid-sparing agent is added. In my Uveitis only practice, I am covering over ten counties and interacting with 25 rheumatologists and 100's of PMD's. I would like to develop a stream-lined method to communicate easily and effectively with these physicians at the initiation of oral prednisone. Primarily I would like to delineate patients at risk, based on age, gender, ethnicity and concomitant co-morbidity/medications. Next step would be to align with the guidelines set by the ACR (American College of Rheumatology) and then track patients prospectively.  Patients assessed to need treatment/prophylaxis if not currently treated then treatment would be initiated in conjunction with PMD/Rheumatology. |
| **Background Information**:  The month you pulled the baseline IRIS performance report and any additional information that me be pertinent: | The development of osteoporosis is a limiting factor in the use of oral corticosteroids for uveitis, therefore as clinicians we need to effectively and efficiently assess and mitigate this risk in our clinical practice. The Tampa Bay Uveitis Center, LLC is a community based tertiary clinic in Southwest Florida. At the clinic we serve 10 surrounding counties. The clinic communicates with 35-50 rheumatologist to co-manage 350-500 uveitis patients on systemic immunosuppressive therapy. During the initiation of therapy some patients may require a short course of oral corticosteroids. In a small number of cases some patients may need a protracted course of oral corticosteroids increasing their risk for osteoporosis/osteopenia and potential bone fractures. |
| Project Setting: (Please select from options below):   * Group Practice * Healthcare Network * Hospital * Multi-Specialty Group * Solo Practice * Surgical Center * Other | Solo Practice |
| **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: | The study will include Uveitis patients who were initiated on oral corticosteroid therapy, beyond the 6-day Medrol Dosepak The Medrol Dosepak is a corticosteroid oral treatment initiated at 24mg on the first day and tapered by 4mg daily x 6-days. |
| **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**: Osteoporosis/Osteopenia Risk Assessment and Mitigation  **Numerator Statement**: All patients who will be started on oral corticosteroids beyond a Medrol Dosepak  **Denominator Statement**: All uveitis patients seen during the assessment time period |
| 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. |  |
| **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: | A written or electronic checklist at the time the oral corticosteroid is being considered, notification of PMD/Rheumatologist, f/u on action required/taken to prevent osteoporosis, ensure alignment with current ACR guidelines. |
| **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. | Uveitis Specialist  Ophthalmic Technician  Office Administrator |
| Will any other ophthalmologists be requesting MOC credit for participation in this SD-PIM? | NO |

**Project Outcomes/Results**

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| **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. | During the 90-day study period the following data was collected: 12/18 - 02/19 Total number of patients seen: 370 patients;  Number of patients treated with corticosteroids: 36 patients; The developed number of patients treated beyond the 6-day Medrol Dosepak: 24 patients.  After implementation of the study, during the last 30 days, the number of patients at risk that were identified that needed baseline bone density scanning (Dexa Scan): 5 patients;  Number of patients treated without added risk: 24-5=19  In the post-study 45 days 03/19 - 04/15/19:  Total number of patients seen: 155; Number of patients treated with corticosteroids beyond Medrol Dosepak: 12; Number of patients at risk identified to need baseline Bone scan: 2;  Number of patients treated without added risk: 10 |
| **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). | **Performance Measure**: Treatment with oral corticosteroid while minimizing osteoporosis/o  **Denominator**: Number of patients treated with corticosteroid; before instituting the project: 36 (90 days); after instituting the project: 12 (45 days)  **Numerator**: Number of patients treated without added risk; before project: 19; after instituting project: 10  Performance measure before project: 19/36 x 100= 52.78% Performance measure after project: 10/12 x 100 = 83.33 %  Rate improvement 83.33-52.78 = 30.55 % |

**Project Impact**

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| 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. | The performance improvement as noted above was 30.55 %. The form that was developed is deployed to PMD or rheumatologist every time a patient is put on corticosteroid treatment beyond the Medrol Dosepak course. Having the form allows for clear communication with the co-managing physician and easy documentation in the patients chart for appropriate f/u. |

**Project Reflection**

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| Did you feel the project was worthwhile, effective? | YES |
| How might you have performed the project differently? | The ACR guidelines were used in determining which patients needed assessment. In the next step I will add a questionnaire in my new patient form to easily identify these patients and keep it as a visible part of the patient's chart that is available if/when corticosteroid treatment is/will be considered. |
| Please offer suggestions for other ophthalmologists undertaking a similar project. | For accessibility and easy documentation, I would suggest getting it added to the EMR system. I plan to engage my EMR developers to identify an appropriate place to add it to the system.  The project will be incorporated into a co-management module for rheumatology fellows in training that will be rotating in the practice. |