# ABO Self-Directed Improvement in Medical Practice Activity (Non-Clinical)

## Topic

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<tr>
<th>Title of Project:</th>
<th>Improving No-Show Rates in Patients with Diabetic Eye Disease</th>
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## Project Description

Describe the quality gap or issue 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)

The no-show rate for our group practice has been 26% over the past 12 months. This is particularly important for patients with significant eye disease, or high-risk patients (i.e., diabetic eye disease). Diabetes is the leading cause of new vision loss in the U.S. The benefits of treatment cannot be realized if the patient does not follow-up. The goal of this study is to focus on improving the no-show rate for patients with a history of diabetes with or without diabetic eye disease and who have been lost to follow-up for 18 months or more.

## Background Information:

The month you pulled the baseline IRIS performance report and any additional information that may be pertinent:

Telephone reminders are the most common form of patient reminders and appointment confirmation being utilized in medical practices. Even with this modality, the national no-show rate in medical practices has been estimated to be between 20 to 30%. This is particularly important for patients who are at high risk for disease, or who have been diagnosed with an eye disease that requires frequent monitoring and/or treatment. In our general ophthalmology practice, we have found this to be an issue, particularly with the following two subsets of patients: those with diabetic eye disease, and those with a history of glaucoma. The goal of this study is to implement a dual call-back system which we define as a coordinated telephone call back system between the ophthalmology office staff and the patient's primary care office call center.

## Project Setting: (Please select from options below):

- Group Practice
- Healthcare Network
- Hospital
- Multi-Specialty Group
- Solo Practice
- Surgical Center
- Other

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## 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 type of patient for whom the care process will be improved are those with a history of diabetes, with or without a history of diabetic eye disease. Ultimately, all patients in the practice would benefit from implementation of our proposed simple dual call-back process.
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:** No-show rate after coordinated call backs performed  
**Numerator Statement:** Number of patients who followed up after being contacted  
**Denominator Statement:** 40 patients lost to follow up and enrolled in the coordinated call-back system
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:

Our office received frequent referrals from large local primary care groups for diabetic eye examinations. Our current call back process involves a telephone reminder from the office staff two days prior to the patients scheduled appointment. This commonly used call-back system still yields a high no-show rate. The changes to the care processes that I intend to introduce is the implementation of a dual call back system, where call backs from both of our call centers are coordinated for shared patients.

### 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.

The individuals who will be involved in this quality improvement project are myself as one of the practice associates, the front office staff in our practice, and the staff from the call-back center of a large and local primary care referral practice with whom we share patients. My role is to develop and help coordinate a call-back plan with our office staff and to communicate the plan with the local primary care group. Once the call-back plan is coordinated between our front office staff and the primary care group’s call-back center manager, our front office staff members will identify 40 patients whom were originally referred by the primary group with a diagnosis of diabetes, and who have been lost to follow up in our practice for a period of 18 months or greater. That list would then be forwarded to the primary groups call center. Then, 2 separate calls would be placed, one from our office, and another from the primary care center informing the patient of their missed appointment with the ophthalmologist.

### 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.

The goal of this study was to focus on improving the no-show rate in our group practice for patients with a history of diabetes with or without diabetic eye disease and who had been lost to follow up for 18 months or more. A dual/coordinated call back system between our front office staff and that of the primary care group’s call center with whom we share patients was implemented. 40 patients whom were originally referred by the primary care group with a diagnosis of diabetes, and who had been lost to follow up in our practice for a period of 18 months or greater were identified for the study. Pre-intervention analysis revealed a no-show rate of 26% in our group practice.

#### 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.

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.

The goal of this study was to focus on improving the no-show rate in our group practice for patients with a history of diabetes with or without diabetic eye disease and who had been lost to follow up for 18 months or more. A dual/coordinated call back system between our front office staff and that of the primary care group’s call center with whom we share patients was implemented. 40 patients whom were originally referred by the primary care group with a diagnosis of diabetes, and who had been lost to follow up in our practice for a period of 18 months or greater were identified for the study. Pre-intervention analysis revealed a no-show rate of 26% in our group practice.
### 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).

40 patients who were lost to follow up were identified and their information forwarded to the primary groups call center. 2 separate calls were placed, one from our office, and another from the primary care center informing the patient of their missed appointment with the ophthalmologist. 37 patients were reached by telephone, and appointments made for 34 patients. Three patients were not reached either from messages not being returned or disconnected telephone numbers. Of the three patients who did not make an appointment, two informed the staff that they would call back and one had found another eye specialist. Of the 34 patients who scheduled an appointment, 33 were seen in the office and one re-scheduled their appointment. The no-show rate was 18% after the coordinated call-back system was implemented.

### Project Impact

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.

Our pre-intervention call-back process involved a telephone reminder from the office staff two days prior to the patients scheduled appointment. This call-back system yielded a no-show rate of 26% in our group practice, measured over the past 12 months. A dual/coordinated call back system was implemented, and the no show rate was reduced to 18%. This is an 8% improvement over the pre-intervention group.

### Project Reflection

Did you feel the project was worthwhile, effective?

Yes

How might you have performed the project differently?

A coordinated call back system between our front office staff and the primary care call center was implemented and carried out. Although the study demonstrated an improved no-show rate with this method, some patients still failed to show for their appointments and there was no recourse. In retrospect, I would establish a system whereby a reminder letter containing an AAO brochure or similar educational material on diabetic eye disease highlighting the risk of irreversible vision loss is mailed out. Such educational material would serve to increase patient awareness and promote a call to action (i.e. follow-up)

Please offer suggestions for other ophthalmologists undertaking a similar project.

I am very aware of the time constraint issues facing physicians today, and the many challenges inherent in balancing patient care with the myriad of office and personnel duties and responsibilities. Providing an efficient call-back system that yields the lowest patient no-show rate is the goal of this project. In order to achieve maximum efficiency in this regard, I would utilize the described coordinated call-back system for all patients in the practice, rather than limit them to only those with a particular diagnosis.