# Improving the Timeliness of Retinal Exams

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## Purpose

To increase the timeliness of Diabetic Retinopathy (DR) screening through implementing the use of an electronic clinical reminder tool. This quality improvement project will take place at the Department of Veteran Affairs (VA) Community Based Outpatient Clinic in Guntersville, Alabama.

## Problem/ Background

30 million+ Americans with Diabetes Mellitus (DM) (CDC, 2020)
- 28.5% of DM patients have detectable DR
- 4.4% of DM patients have visual impairment due to retinopathy
- Veterans are 2.5x more likely to have Diabetes (Federal Practitioner, 2017)

DR can be detected through a simple imaging screen (ADA, 2017)
VA's national goal is 85% of DM patients receive timely screening for DR
- 78% of DM patients received timely screening for DR in VA (NCQA, 2019)
- 81.72% screening rate in the VA region including the states AL, GA, and SC
  - Inconsistency of screening practices and recording practices
  - Inconsistencies lead to missed early treatment and poor outcomes

## Methodology

Timeliness of DR screening will be achieved using a Clinic Huddle Tool as part of the electronic clinical reminder system. Staff will be trained on the new standardized protocols of identification, contacting, and referral of patients.
Development of electronic clinical reminder screening tool
- Work with VSSC to insert screening filter into current EHR system
- Test new system for accuracy

Train staff and management
- Importance of screening
- Use of new system
- Recording results

Collect data
- # of pts needing DRS/ # of pts screened
- Data from surveys of stakeholders
- Time logs

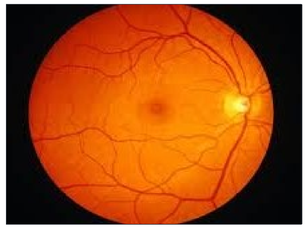


**Figure 1.** Normal retinal scan

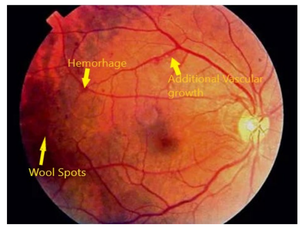
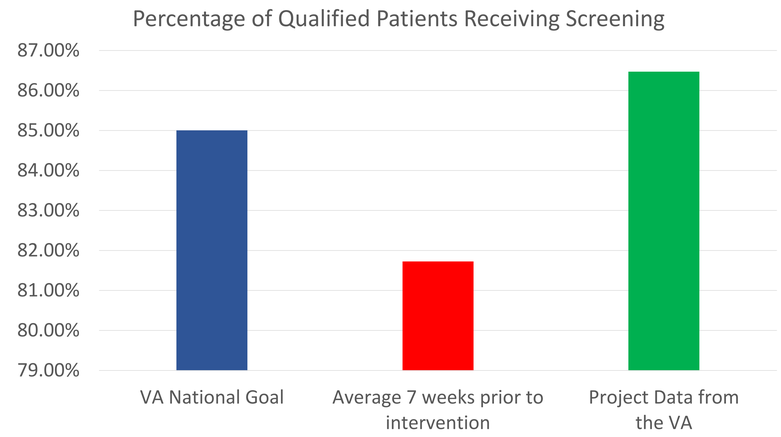



**Figure 2.** Diabetic retinopathy

## Theoretical Framework
## Kurt Lewin's Organizational Change Theory


| | Records review (mins) | Patients Due for Retinal Exam | Patients Imaged |
|---|---|---|---|
| Average of 7 Weeks Prior to project | 240 | 3.07 | 2.5 |
| Week One | 33 | 8 | 6 |
| Week Two | 29 | 7 | 5 |
| Week Three* | 27 | 6 | 4 |
| Week Four* | 31 | 7 | 3 |
| Week Five* | 30 | 8 | 4 |
| Week Six* | 30 | 6 | 5 |
| Week Seven* | 25 | 8 | 8 |

*Due to COVID19 Pandemic, patients were cancelling and requesting to be seen after virus was resolved. This impacted the overall pilot project results.




## Results

Increase from 81.72% timeliness to 86.47% timeliness
Increase of 20% of veterans screened
Decrease in weekly chart review of 3.5 hours
Decrease in time equates to an average 30 minutes
Survey indicates
- Tool is easy to use 100%
- Tool saves time 100%

Survey respondents would like to use the tool for other screenings
Salary cost of time spent on weekly chart review before pilot project $731.52
Salary cost of time spend on weekly chart review during pilot project $91.44

## Practice Implications

- Contributes body of work supporting use of electronic clinical reminders
- Sustainable LEAN practice by decreasing waste
- Project can be duplicated at any VA facility for any screening procedure
- Supports National Committee for Quality Assurance and VA national goals
- Increased timely screenings leading to better care and better patient outcomes

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Team Lead: Dr. Rebecca Huie DNP, RN, ACNP, VHA-CM
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