EyeConnect: A Multimethod, Interprofessional, CE-Certified Initiative to Improve Diabetic Eye Care Across the Continuum of Care

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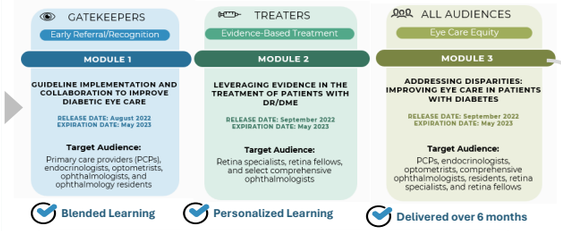
EYECONNECT Take Action to Prevent Blindness for Your Patients With Diabetes

BACKGROUND

Preventable vision loss from diabetic retinopathy (DR) and diabetic macular edema (DME) remains a persistent challenge driven in part by delays in screening, diagnosis, referral, and treatment—particularly among underserved patient populations. [CDC 2020] DR is the leading cause of blindness among working-age adults in the United States. Since these challenges span multiple care settings and specialties, improving outcomes requires proactive engagement from all clinicians who manage patients with or at risk for DR/DME. As a result, Paradigm Medical Communications, LLC, in collaboration with the American Academy of Physician Associates, the American Association of Nurse Practitioners, the California Academy of Family Physicians, Endocrine Society, the National Minority Quality Forum's Center for Sustainable Health Care Quality and Equity, and Salus University Pennsylvania College of Optometry, developed the interprofessional education, CE-certified initiative ***Eye Connect: Take Action to Prevent Blindness for Your Patients With Diabetes***, aiming to improve multidisciplinary collaboration, early recognition, and evidence-based treatment of DR/DME across diverse clinical audiences.

METHODS:

Between **August 2022 and May 2023**, **3 educational modules were launched,** each comprising multiple activities designed to address specific gaps experienced throughout the DR/DME care continuum for **gatekeepers (primary care physicians, endocrinologists, nurse practitioners, physician associates, optometrists, comprehensive ophthalmologists, ophthalmologists, and ophthalmology residents)** and **treaters (retina specialists and retina fellows).** Outcomes were evaluated using qualitative and quantitative matched cohort data analyses, including pre/postassessments of knowledge, competence, and confidence, supplemented by a longitudinal study that included real-world clinical behavior comparisons between learners and matched controls.



Immersive group-based online learning offered a social learning experience that prioritized engagement, peer-to-peer learning, and mentorship within a small group setting.

- Self-paced assessments
- Live group discussion
- Case study
- Action plans

Matched Cohort Analysis

US-based primary target audiences who have completed all pre- and postassessment questions and indicated that they see patients with or at risk for DR/DME

21 CE/CME multimodal activities

included live residents' and fellows' programs, live webinars, enduring materials, patient cases, and animated infographics

LONGITUDINAL REAL-WORLD STUDY

OBJECTIVE: To measure and assess the impact of medical education programs on the behavior of learner healthcare practitioners (HCPs) as compared with nonlearner HCPs (control group) and assess the impact on outcomes of the patients managed/treated by these learner HCPs via a patient journey analysis

Learner HCPs completed their education between 8/2022 and 5/2023

Inclusion criteria:

- Included only patients seen/treated by learner HCPs
- Only patients with a history of diabetes (type 2 or type 2) as identified via diagnosis codes found on medical claims

Exclusion criteria:

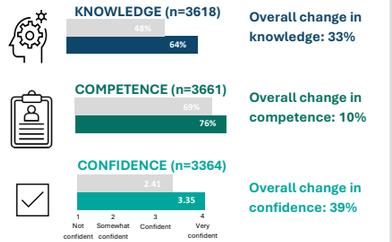
- Patients must NOT have had prior anti-vascular endothelial growth factor (VEGF) use during the look-back period
- Patients must NOT have had a prior DR/DME diagnosis in the look-back period

1-year "look-back" period from 8/1/22 to 8/1/21, and "look-forward" period from 5/31/23 to 5/31/24

RESULTS

Collectively, **participants reported potentially impacting over 2 million patients annually**, with more than 80% managing individuals with or at risk for DR/DME on a weekly basis. Results from matched cohort pre- and postactivity assessments demonstrated significant improvements:

MATCHED COHORT DATA



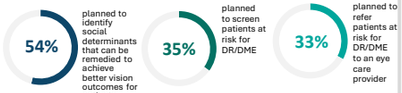
Top 3 Confidence Changes were Related to:

60% Summarize new data that demonstrate the importance of early and proactive DR/DME diagnosis and treatment, to provide the rationale for earlier referral

45% Recognize early signs of DR/DME that warrant referral, based on accurate interpretation of examination and tests, including novel imaging devices

42% Implement strategies that address disparities in diabetic eye care among underserved patient populations, including racial and ethnic minorities and older patients

Clinician Behaviors: Self-Reported Frequency of Practice Care Strategies (often + very often)



Immersive Group-Based Online Learning

Gatekeeper activity:

- 300 participating learners
- 168% knowledge/competence change related to recognizing key factors for patient education that are needed to catalyze uptake of recommended eye care in patients with diabetes
- 97% reported that they made progress on implementing their action plan

Treater activity:

- 150 participating learners
- 60% knowledge/competence change related to assessing the effects of intravitreal anti-VEGF therapy on DR/DME, as evidenced by recent data and differentiating among new and emerging strategies for more durable dosing of anti-VEGF to treat DR/DME

9756 TOTAL LEARNERS

3519 US-based cohort learners reported seeing a combined total of **49,214 patients with or at risk for DR/DME each week**.

TOP SPECIALTIES

Primary care · Ophthalmology · Optometry

LONGITUDINAL REAL-WORLD IMPACT ANALYSIS

1083 clinicians had relevant claims data making them eligible for endpoint analysis and a total of 75,099 eligible patients seen by a clinician who had a control match were identified.

ENDPOINT 1:
Referral of patients with DR/DME from gatekeepers to treaters

MODULE 1: GATEKEEPERS — Early Referral/Recognition

The mean rate of referral **decreased** very slightly in both the learner and control groups. **Learner HCPs tend to see/treat more target patients** than nonlearner HCPs, **which translates into higher volumes of referral and treatment.**

ENDPOINT 2:
Treatment of patients with DR/DME with anti-VEGF agents prior to the development of complications

MODULE 2: TREATERS — Evidence-Based Treatment

The mean rate of treatment of patients with DR/DME with anti-VEGF agents prior to developing complications **increased slightly for the learner group**, suggesting a **positive trend for this group**, whereas it decreased for the control group.

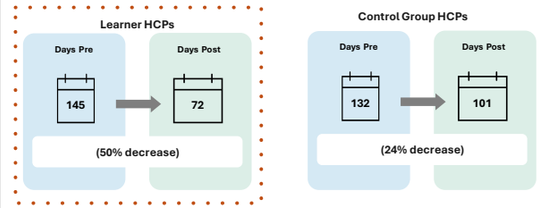
ENDPOINT 3:
Volume of patients of an ethnic minority with DR/DME who experience barriers to treatment

MODULE 3: ALL AUDIENCES — Eye Care Equity

Both the learner and control groups experienced **growth** in mean volume of ethnic minority patients with DR/DME per HCP. In addition, both group showed overall increases for each group in percentage of ethnic minority patients.

PATIENT JOURNEY

The average number of days between gatekeeper referral and treatment changed from:



CONCLUSIONS:

The EyeConnect educational initiative successfully demonstrated the value of CME in addressing complex, multidisciplinary healthcare challenges by equipping clinicians with the tools to recognize and act on early signs of DR/DME, bridging critical gaps in patient care.

The outcomes underscore the need for sustained efforts, including patient advocacy, increased funding for CME programs, and leveraging innovative technologies to enhance patient care. It is imperative to align HCPs so that they are able to work collaboratively to provide optimal eye health care to patients who have or are at risk for developing blindness or other eye-care related complications.

The need for continued education in 3 areas stood out:

- *Recognize early signs of DR/DME that warrant referral, based on accurate interpretation of examination and tests, including novel imaging devices*
- *Identify barriers to diabetic eye care in vulnerable patient populations, such as older patients and racial and ethnic minorities*
- *Differentiate among new and emerging strategies for more durable dosing of anti-VEGF to treat DR/DME*

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