**DIABETIC RETINOPATHY: MEETING PATIENT NEEDS**

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**BACKGROUND**

- Diabetic retinopathy (DR) is a microvascular complication of diabetes caused by damage to the retinal blood vessels due to hyperglycemia.
- Ophthalmic vascular changes in patients with diabetes can lead to retinal damage, vision loss, and blindness.
- In the US, about 7.7 million people had DR in 2017, and the prevalence is expected to double by 2050.
- NPs are important care providers for patients with diabetes, as they are key members of diabetes care teams.
- To improve NP knowledge and confidence in screening for and partnering to manage DR, AANP developed a 1.25-hour online CE program.

**METHODS**

- Outcomes questions were developed based on the learning objectives, needs assessment, and content.
- Learners answered questions online.
- Statistically significant differences pre- to posttest were identified using McNemar test for multiple choice questions and Wilcoxon test for overall percent correct and rating scale questions.
- P ≤ .05 indicated a statistically significant difference.
- Effect size (ES) to indicate the size of the change was calculated using Cohen's d. A value of 0.20, small; 0.50, medium; 0.80, large.

**AUDIENCE**

- **Total Learners:** 2301
- **Pretest Completers:** 1359
- **Survey Respondents:** 32

**PROFESSION**

- NPs: 97.1%
- Adult/Gerontology: 15.3%
- Family: 79.9%

**CERTIFICATION**

- **Training Certifications:**
  - Adult/gerontology: 97.1%
  - Family: 79.9%
  - Adult/Gerontology: 15.3%

**LEARNING OBJECTIVES**

1. Identify patients who are candidates for DR screening according to guideline recommendations.
2. Summarize recent clinical evidence on the safety and efficacy of anti-VEGF therapies for DR.
3. Incorporate strategies for effective patient-centered approaches to management, including education, promotion of adherence, and coordination of interdisciplinary care.
4. Explain individualized and evidence-based strategies to overcome barriers to treatment adherence.

**RESULTS**

- **Most notable increases in knowledge:**
  - Increase in awareness of the frequency of follow-up with anti-VEGF therapies: Pretest 41%, Posttest 90%.
  - Increase in awareness of requirements for primary care-based imaging: Pretest 37%, Posttest 119%.

- **In posttest evaluation (n = 1359):**
  - 88% of learners planned to implement at least one practice change.
  - 52% increase in overall correct answers from pre- to posttest with large effect size (Cohen's d = 1.42).

- **In 60-day follow-up (n = 32):**
  - 53% of learners reported at least one practice change.
  - 59% (n = 1339) of learners saw an average of 33.1 patients each month who could be or are being screened for DR.
  - Potential patient impact from learning activity: 44,945 per month.

**CONFIDENCE CHANGE**

- Confidence in identifying patient populations at risk for DR
  - Pre (mean±SD, 2.77±1.02)
  - Post (3.99±0.69)

- Confidence in discussing DR screening importance with patients
  - Pre (3.00±1.04)
  - Post (4.05±0.68)

- Confidence in referring patients with DR for guideline-recommended screening
  - Pre (3.08±1.05)
  - Post (4.06±0.67)

**ONGOING BARRIERS AND NEEDS**

- Greatest barriers to implementing lessons learned:
  - 27.1% patient education level
  - 17.7% cost or lack of insurance coverage
  - 14.6% time constraints

- 23.9% reported no barriers to implementing lessons learned.

**Top 3 suggestions for future activities:**

- In-depth pharmacologic management of diabetes
- In-depth lab interpretation for diabetes and metabolic syndrome
- Gestational diabetes

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