Improving process measures around preschool vision screening of children 3 to 5 years of age in Ohio primary care practices

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INTRODUCTION

Although children can undergo vision screening in a variety of different settings, primary care providers (PCPs) play a vital role in assuring that all children have high-quality vision screening as part of routine well child care (WCC) and that those children who have an abnormal vision screen receive timely follow-up care with an eye doctor experienced in treating children. The Preschool Vision Screening Learning Collaborative (PVSLC) equipped PCPs with training, information, and techniques to screen the preschool population.

OBJECTIVES

Primary care providers will attempt age and developmentally appropriate vision screening (distance visual acuity – DVA and stereopsis – S) on all children 3 through 5 years old at WCCs.

Providers will inform families of the results and assist in arranging follow-up with an eye care specialist for abnormal results or arranging for re-testing if the screening was incomplete.

METHODS

• PCP practices were recruited through the Ohio Chapter, AAP and self-selected to participate (December 2013 to June 2014).
• Practices formed core QI teams comprised of at least a lead physician and project manager, who attended a one-day learning session.
• Learning Collaborative – Learning session was comprised of evidenced-based training on age-appropriate preschool vision screening (PVS) guidelines and techniques, referral and rescreening criteria; QI methods; and on data collection strategies.
– Teams participated in 5 monthly action period calls to review data, receive further education on PVS, discuss best practices.
– Teams also participated in one site visit, after the learning session, to ensure all PVS tests were appropriately setup.
– Providers received CME for attending the learning session, and MOC Part IV along with a practice stipend for meeting collaborative requirements.

METHODS (continued)

• Primary care teams utilized the Random Dot E stereopsis test (Figure 1) and the 10 feet LEA symbol Distance Visual Acuity test (Figure 2).
• Data collection:
  – Utilized the American Board of Pediatrics Process Improvement Module (ABP PIM) for Preschool Vision Screening and to the PVSLC Project Team.
  – Baseline data collection within the ABP PIM was modified to a retrospective chart (n=20 per provider).
  – 4 ABP PIM cycles were submitted.
  – Providers were also asked to establish processes for uploaded data to a universal registry, ImpactSIIS.
• Data analysis:
  – Run charts were constructed for monthly action period calls.
  – Rates were calculated for attempted screenings, successful screening, scheduling of unstable children and referral of abnormal results.

RESULTS

• 11 practices (34 physicians and 13 support staff) participated in the 6-month PVSLC improvement period.

RESULTS (continued)

• Practice data was submitted in aggregate to the ABP PIM. Age-specific data and results were not available for analyses.

CONCLUSIONS

Primary care providers were able to increase the receipt and successful completion of PVS as well as improve referral rates for children presenting with vision abnormalities by participating in a quality improvement collaborative. Not only was the quality of PVS enhanced, but improved screening practices identified more children with vision abnormalities for referral to community eye care providers.

ACKNOWLEDGEMENTS

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Ohio Chapter

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Figure 1. Random E Test

Figure 2. 10-foot Lea Symbol Test

Table: SCREENING ATTEMPT RATES

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