

Questions and Answers from the “Year of Children’s Vision: Developing a Strong Vision Health System (Part I)” Webinar (Presented February 26, 2014)

QUESTION: I don't feel comfortable not referring for vision screening at 20/33 or greater but the acuity numbers for referral were quoted as 20/40 (ages 3-5).

ANSWER: The referral guidelines example in the Webinar from the American Academy of Pediatrics, the American Association for Pediatric Ophthalmology and Strabismus, the American Academy of Ophthalmology, and the American Association of Certified Orthoptists state that children ages 3 through 5 years should be rescreened or referred if they cannot identify the majority (3 of 5) of optotypes on the 20/40 line. Children ages 6 years and older should be rescreened or referred if they cannot pass the majority of optotypes on the 20/30 (20/32) line. Some states, for example, Massachusetts, do have 20/32 as a referral line for ages 3, 4, and 5.

QUESTION: Is there a preference to refer to an ophthalmologist as opposed to an optometrist especially for younger children never have been screened before?

ANSWER: We do not have a preference. You want to refer to a pediatric eye care professional (optometrist or ophthalmologist) with training and experience treating young children.

QUESTION: Why would we get charged for direct referral? We don't have many choices in our area who take Medicaid.

ANSWER: If a child is entitled to an eye examination to identify a disability, to determine eligibility for special education services, to develop an Individualized Education Program (IEP), or as a related service under the IEP, the eye exam must occur at no cost to the family. Ultimately the school would be responsible for the cost of the eye examination. The school district is responsible to locate, identify, and evaluate students with disabilities residing in the district ages 3 – 21 years, including students with visual impairments. Evaluations determine the existence of a disability, educational needs, effect of the exceptionality, need for specially designed instruction, and the nature and extent of special education needed by the student. These evaluations are at no cost to the parents, although existing evaluations/reports can be used. Contact your state's special education department for further clarification. Annette Carey, Coordinator of the Deaf/Blind Project, Office of Special Programs, West Virginia Department of Education, assisted with this response.

QUESTION: Is the referral form/consent available in Spanish?

ANSWER: Not at this time, but we will have it translated and posted in the next 30 days. Please check back on the YOCV website.

QUESTION: Should we be using the LEA symbol chart for all ages including middle and high school? Or should middle and high school children be screened using a visual machine with "E"? We would like to use the LEA symbol chart with middle to high school students instead of the machine.

ANSWER: Tests of visual acuity using the LEA Symbols optotypes are for preschool-aged children and children who are not yet comfortable with their letters. When children know their letters, switch to Sloan Letters, even in middle and high school. If your visual

machine has an option of slides or cards with Sloan Letters, use Sloan Letters with middle and high school children. If you recall from the webinar, children can guess the direction of the E by looking at the solid or broken lines.

QUESTIONS: We are currently using the Keystone Telebinocular. Is this compliant?

Are vision machines like Titmus and Optec adequate for testing?

What is your recommendation on the Welch Allyn sure Sight Autorefractor equipment?

A series of questions: "devices" were listed as refractive and photoscreeners. Is not the Titmus Tester a device? Second are photoscreening instruments still manufactured and who recommends their use? And third. Is there a difference in referral rates between critical line and threshold testing? I would imagine that threshold testing would yield fewer referrals.

ANSWER: The apparatuses described in the questions are "machines", not instruments or devices. Machines use cards or slides that require child responses and interaction. Instruments, or devices, provide vision screening results based on readings of the eye and are automated, meaning they require no child responses other than to look at the instrument during the reading. A guideline exists for "instruments", but not machines. For additional information, refer to the Instrument-Based Pediatric Vision Screening Policy Statement at <http://pediatrics.aappublications.org/content/130/5/983.full>

Photoscreeners are still manufactured.

To our knowledge, no research exists regarding differences in referral rates from critical line testing versus threshold testing. Critical line testing takes less time and decreased cooperation on the part of the child. Some children may have difficulty with threshold acuity testing.

QUESTION: You stated that a 20/30 line on an eye chart was not appropriate but the 20/32 line on the eye chart was appropriate for testing. Would you please explain why?

ANSWER: If you designed a ruler, you would want every inch to be the same length so that each inch marking carried the same meaning along the whole length of the ruler. For measuring visual acuity, each step in the measuring sequence should carry the same meaning. This requires that each size has the same number of optotypes, all spacing should be proportional to optotype size (optotype width between optotypes and the height of the next line down between lines), the mix of optotypes should be equally difficult, and the progression of size should have a constant ratio. National and international guidelines for standardized eye charts recommend a line size progression of 0.1 log units (a ratio of almost 5/4). The appropriate size between the 20/25 and 20/40 lines is 20/32 (to be really precise, it should be 20/31.62). Using 20/30 as the intermediate size between 20/25 and 20/40 would give unequal ratios ($30/25 = 1.2$ and $40/32 = 1.33$). Ian L. Bailey, OD, Professor of Optometry and Vision Science, School of Optometry, University of California, Berkeley, who was referenced in the eye chart design slides, assisted with this response.

QUESTION: What is the appropriate referral for a child who has difficulty with visual tracking . . . i.e., choppy eye movements when tracking a moving object. Should they be referred to their pediatrician or to an optometrist?
ANSWER: Given the two choices provided in the question, an optometrist would be the referral source.
QUESTION: We are talking about age 3 - 5 and referring to preschool but what about testing at Kindergarten level. Seems the same principles should apply given what Kay has stated. Can you confirm this?
ANSWER: Threshold eye chart tests of visual acuity would apply to all ages. You would use pediatric optotypes, such as LEA Symbols, until children comfortably know their letters, which could include Kindergarten. When children comfortably know their letters, switch to Sloan Letters.
QUESTIONS: Are the Lea symbols card for screening at 16 inches acceptable ? What about the use of the near vision Lea Symbols screeners by Good-Lite? When should we screen near and/or far vision?
ANSWER: Near vision testing is not a substitute for more formal distance acuity testing. If you are checking visual acuity at near, the LEA Symbols card with a 16-inch rope is acceptable.
QUESTION: Our county does the vision screening for new entries into state schools. For the pre k 3 & year olds, they use an E. Screener has one and the student has one and is asked to mirror what the screener is doing with their E. Is this acceptable for accuracy?
ANSWER: E screeners or “Tumbling E” charts should not be used with preschoolers because orientation and direction skills are emerging cognitive skills and are not “in place” until around ages 8 to 10 years. Mirroring what the screener is doing is another cognitive skill. Prior to ages 8 to 10 years, you are testing cognition and not vision. Even at ages 8 to 10 years, children can guess the direction of the E by looking at the solid or broken lines, even when asked to mirror what the screener is doing with their E. If the screener is using a single E and moving it in different directions, this is the same technique as showing the child a card with one optotype, or flashcards, which will yield different visual acuity results than an eye chart with full lines. Your better choice, for a test of visual acuity, would be LEA Symbols or HOTV optotypes.
QUESTIONS: Early Head Start programs are required to ensure that every child receive a vision screening with 45 days of enrollment. InfantSEE is one resource during the first year of life, but what method(s) do you recommend for children birth to three years of age if we as lay screeners need to be trained to perform something ourselves? What screening is recommended for the EHS children (ages Birth-3yrs)?

For children 6 months to 3yrs what method of screening is recommended?

ANSWER: National guidelines exist for this age group for screening vision and ocular health within the medical home. National guidelines are not currently available for Early Head Start (EHS), Parents As Teachers, and other early childhood programs. Look for guidelines from the Year of Children's Vision and the National Center for Children's Vision and Eye Health at Prevent Blindness in the future for this age group.

One of the best approaches EHS and other programs serving children ages birth to 3 years can employ currently is to maximize the parental relationship with the child's medical home to ensure that the data needed to meet the vision screening requirement is secured from the child's primary care provider. Many programs have added sections to the enrollment forms that capture the results of a subjective screening on a young child as a part of the well-child visit and signed by the provider. The subjective screen that the medical provider gives should include: (1) family history of early onset vision problems and ocular abnormalities, (2) maternal and neonatal infection, (3) observation for proper eye alignment, (4) pupillary reflex, (5) the presence of nystagmus, and (6) muscle balance. Additionally, the external parts of a child's eyes must be examined, including: the (1) lids, (2) conjunctiva, (3) cornea, (4) iris, and (5) pupils. Until visual acuity can be obtained, the provider should observe the child's eyes for ability to track, pupillary response to light, and retinal reflex symmetry. Finally, the parent or guardian must be asked if they have concerns about the child's vision.

The Instrument-Based Pediatric Vision Screening Policy Statement at <http://pediatrics.aappublications.org/content/130/5/983.full> (1) endorses instrument-based screening for children ages 6 months to 3 years, (2) recommends instruments as an alternative to tests of visual acuity for children ages 3 through 5 years (adding that tests of visual acuity to assess amblyopia in children ages 3 to 5 years remains a viable practice), and (3) recommends tests of visual acuity for children aged 6 years and older.

QUESTIONS: Is parent consent required for school screenings?

If we have policy that states we screen children in certain age groups, do we still need the written permission from parents/guardians in order to proceed with the screening?

When you are talking about obtaining permission for vision screenings- I send home a monthly newsletter and for the beginning of the school year newsletter I include in it that I will be doing vision and hearing screenings later in the year and unless they notify me that they request I not screen their child, I go ahead and screen them? Is this adequate?

ANSWER: Refer to your state or school district vision screening guidelines about written parental permission requirements for health assessments. If you want to collect eye exam results to determine whether your referrals are excessive as part of an annual vision health program evaluation, you will need written permission. If you want to consult with eye care professionals, you will need written parental consent. If you want to ensure the child's primary care provider receives a copy of the eye exam results for the child's medical record, you will need written permission.

QUESTION: Child-friendly eye care professionals.....Hmmm. I have taken children to eye doctors that ask things of children or expect children to act beyond their developmental stage. How do we improve the availability of child-friendly optometrists/ophthalmologists?? I only know of one in our state of KS (You know who she is!)
ANSWER: Some general ophthalmologists are child-friendly and trained to work with children. If you have concerns with an eye doctor's approach to young children and other eye care professionals practice in your area, you may want to seek another eye care professional.
QUESTIONS: We have the Tumbling E. Where do we get new charts for ages 3-5? Where would you recommend getting up-to-date eye charts?
ANSWER: Refer to School Health Corporation at http://www.schoolhealth.com/ or call 866-323-5465 or Good-Lite Company at https://www.good-lite.com or call 800-362-3860.
QUESTION: EyeSpy 20/20 includes 4 optotypes vs. the recommended 5. Comments on validity, standardization, etc?
ANSWER: EyeSpy 20/20TM is a software test of visual acuity that uses single, crowded LEA Symbols optotypes in a video matching game. Single, crowded LEA Symbols optotypes (lines around the single optotype) are evidence-based and appropriate. The national/international guideline referring to 5 optotypes per line is for tests of visual acuity with full lines, such as threshold charts with several lines or critical line charts with a line of optotypes for the child's age. Refer to this link for a peer-reviewed study: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2928400/
QUESTION: I have been using the SureSight screener in my school system to do mass screenings. Should I go back to using LEA symbols and HOTV visual acuity cards?
ANSWER: The Welch Allyn SureSight is an appropriate vision screener if the instrument is calibrated every 18 months, uses version 2.25 software, and is set in child mode for preschoolers. Version 2.25 software should be available from School Health Corporation in mid- to late March 2014. A printout of vision screening results will display your software version. Having a test of visual acuity with LEA Symbols or HOTV optotypes would be a good "backup" in case your device malfunctions, you forgot to charge the battery, you cannot achieve a reading, or the child is untestable.
QUESTION: Is the auto refractor screening and a stereopsis screen considered a complete screening for 3-5 yr olds?
ANSWER: If you are doing instrument-based screening, you may not need to do a stereopsis test. Many instrument-based screening devices will detect strabismus, which stereoacuity testing is also designed to detect.
QUESTION: Can the resources/forms you will share be modified to personalize for our own agency?
ANSWER: Screening organizations may personalize the provided resources/forms to

include logos and local contact information to encourage use of resources/forms in the system of children's eye health. This will help to ensure receipt of information from eye care providers as well as to give parents a local source to ask questions and receive help with follow up eye care. Screening organizations may not alter the scientific content of the documents or share the information without proper credit to the source.

QUESTION: Are there any legal implications for a screener giving a false pass when child did indeed have acuity issues? Will children actually be missed because they received a pass?

ANSWER: We are not attorneys; so, the answer to your question is based on opinion and consensus among the presenters. Health screening, in general, over-refers some individuals who do not have the targeted condition, such as a vision disorder in this topic, and misses some individuals who have the targeted referral. Your best line of defense is to ensure you use age appropriate and evidence-based vision screening tools and that you have been formally trained to use those tools.

QUESTION: Is it possible to get brochures for parents of young children for our offices?

ANSWER: The Year of Children's Vision website - <http://nationalcenter.preventblindness.org/year-childrens-vision> - has a wealth of fact sheets and brochures that screening programs may use for parent education. Most documents can be printed from the website directly. If you want hard copy materials for distribution, send a request to Prevent Blindness by emailing: info@preventblindness.org Please include your name, mailing address, title of brochure requested, and quantity desired. Charges may apply for larger quantities of brochures.

QUESTION: We have a child with a diagnosis congenital nystagmus, decreased visual acuity, and photophobia. He is supposed to wear glasses, but he does not like to wear them. Is there anything we can do to support this child?

ANSWER: If the glasses are uncomfortable, the child will not wear them. Getting a good frame fit by an optician who is experienced in pediatric eyewear is important. The frame should be comfortable with the eye centered in the middle of the lens and one that fits the child now—not one that he or she will grow into in a year. Suggest to the parents that they check the glasses regularly to ensure they are not bent or scratched. Glasses with a band around the back will help glasses stay in the appropriate location on the face.

QUESTION: Did I understand it right from Chaplin that the best vision screener for ages 3 to 5 year children would be the Tumbling E possibly?

ANSWER: The best vision screener for children ages 3 to 5 years would not be the Tumbling E. Orientation and direction are emerging cognitive skills. Up and down develops before left and right. Orientation and direction cognitive skills are "in place" around ages 8 to 10 years. Prior to this, you are testing cognition. Additionally, children can guess the direction of the E by looking at the broken or solid lines. One of the national/international guidelines is that optotypes be as nearly equal in legibility as possible to prevent guessing. The appropriate optotypes for children ages 3 to 5 years would be LEA Symbols or HOTV letters.

QUESTION: Where can we get a list of pediatric eye doctors in Kansas?
ANSWER: Eye care professional locator websites are available at http://www.aapos.org/find_for the American Association for Pediatric Ophthalmology and Strabismus and at http://www.aoa.org/doctor-locator-search for the American Optometric Association.
QUESTION: We use the SPOT vision screener by PediaVision. We absolutely love it! Is this a screening device that is recommended, if funds are available?
ANSWER: The Instrument-Based Pediatric Vision Screening Policy Statement does not recommend specific brands. Look for additional guidance soon from the National Center for Children's Vision and Eye Health at Prevent Blindness. In the interim, consult your local pediatric eye care providers for appropriate and recommended referral criteria settings for your instrument.
QUESTION: We are currently using the Square shape HOTV for children from 3-5. Do you recommend us to use the triangle shape charts ?
ANSWER: If you draw a line around the outside of the optotypes on your eye chart and the line is a rectangle, your eye chart will not adhere to standardized eye chart design national and international guidelines. If you use a chart of lines as your test of visual acuity, the line around the outside of the optotypes should resemble a triangle. Appropriate pediatric optotypes are LEA Symbols and HOTV letters.
QUESTION: Can you tell me why it is not good to use the Allen Preschool Vision cards again?
ANSWER: Four challenges to Allen Pictures include: (1) asking children to make "whole" pictures from "parts"; (2) cultural bias (how many young children today could identify the telephone?); (3) optotypes calibrated against a 30-foot Snellen E instead of a Landolt C, which is the international standard against which optotypes should be calibrated; and (4) Dr. Allen said his test was not as good as existing tests in 1957, such as the illiterate E and Sjögren hand test. Allen, H. F. (1957). A new picture series for preschool vision testing. <i>American Journal of Ophthalmology</i>, 44(1), 38-41. Tests of visual acuity not depending on the sense of direction improve testability, decrease testing time, and provide truer visual acuity scores. Lippmann, O. (1974). Choice of preschool vision test. <i>The Eye, Ear, Nose and Throat Monthly</i>, 53(5), 68-73.
QUESTION: Do you have a list of Medicaid providers by state/county?
ANSWER: We do not have a list of Medicaid providers by state/county. Someone in your state Medicaid program should be able to provide you with a list providers in your local area.
QUESTION: As far as I am aware, if a child has Medicaid as the primary insurance, the child's doctor must make the referral to eye specialist.
ANSWER: Contact the Medicaid program in your state.

QUESTION: Does Medicaid cover glasses for school and home?

ANSWER: Whether Medicaid covers the cost of a set of glasses for home and another set for school depends on your state's Medicaid program. Contact the Medicaid program in your state.