Clinical Practice Guideline: Pediatric Eye Examinations

Reference Number: OC.UM.CPG.0047
Last Review Date: 11/2022

Coding Implications
Revision Log

See Important Reminder at the end of this policy for important regulatory and legal information.

Description

Pediatric comprehensive eye evaluations are performed on children ranging from birth to 18 years of age. The two major components of the evaluation are history and examination. Their content and application vary depending on needs and circumstances of the patient. Comprehensive examinations in children differ in technique, instrumentation, and diagnosis capacity depending on the child's mental and emotional development and their ability to interact with the examiner and the examination equipment

Policy/Criteria

Children with a family history of childhood eye disease, those with disorders associated with eye problems, and those whose caretakers are suspicious of vision problems should undergo a comprehensive eye exam. Referral should be made for children with apparent ocular abnormalities (e.g., ptosis, strabismus, nystagmus), developmental delay, suspected neurologic abnormality, systemic disorders with associated ocular abnormalities (e.g., juvenile idiopathic arthritis, diabetes mellitus), or a history of eye injury. Newborns with a history of metabolic/genetic disorders, intrauterine growth retardation, prematurity, or a family history of childhood eye disorders (including cataracts or retinoblastoma), should be referred for a comprehensive examination. In addition, premature neonates meeting screening criteria for retinopathy of prematurity (ROP) should be referred to an ophthalmologist experienced in the care of ROP according to American Academy of Pediatrics (AAP) guidelines.

I. Frequency of evaluation:
- **A.** Pediatric vision screenings are recommended beginning at six months of age. Vision screening in the primary care setting is usually performed by a nurse or other trained health professional during routine pediatric examinations. Vision screening in the community setting may be performed in preschools, in daycares, at schools, or at health fairs.
- **B.** Pediatric eye examinations are recommended in the presence of ocular health risks, ocular pathology, a vision complaint, the inability to be screened or following abnormal results on a vision screening. Comprehensive eye examinations are not necessary for healthy asymptomatic children who have passed an acceptable vision screening, have no subjective visual symptoms, and have no personal or familial risk factors for eye disease.

II. The following factors are considered ocular health risks in infants or toddlers:
- **A.** Prematurity, low birth weight, oxygen given at birth, grade III or higher intraventricular hemorrhage;
- **B.** Family history of retinoblastoma, congenital cataracts, or metabolic and genetic diseases, including hyperthyroid, diabetes, and heart disease;
- **C.** Infection during pregnancy, especially rubella, toxoplasmosis, syphilis, gonorrhea, herpes, cytomegalovirus, HIV/AIDS;
- **D.** Difficult or assisted labor, which may associate with fetal distress or low Apgar scores;

E. Known or suspected central nervous system dysfunction, e.g., developmental delays, cerebral palsy, seizure disorders, hydrocephalus;
F. High refractive errors;
G. Strabismus;
H. History of eye injury;
I. Anisometropia.

III. Pediatric vision screenings should include the following components, depending on the age and level of cooperation of the child. Physicians, nurses, other health care providers, and lay persons who perform vision screening should be trained to elicit specified risk factors for vision problems, detect structural eye problems, and/or assess visual abilities or acuities at every age.
A. Red reflex test (beginning in newborn to 6 months of age)
B. External inspection (beginning in newborn to 6 months of age)
C. Pupillary examination (beginning in newborn to 6 months of age)
D. Fix and follow (beginning at 3-12 months of age)
E. Corneal light reflection (beginning at 6-12 months of age)
F. Instrument based screening (beginning at 1-3 years of age)
G. Cover test (beginning at 3-4 years of age)
H. Distance visual acuity (beginning at 3-5 years of age)

IV. Pediatric eye examinations should include the following components:
A. A thorough history, containing the following:
1. Demographic data;
2. Documentation of identity and relationship of historian;
3. Other pertinent health care providers utilized by the patient;
4. Reason for the eye evaluation;
5. Current eye problems if noted;
6. Ocular history: prior eye problems, diseases, diagnoses and treatments;
7. Family history: known eye diseases and pertinent systemic diseases;
8. General medical status: birth weight, prenatal and postnatal, general health and development, surgery or hospitalization, any current medication and allergies;
9. Current medications and allergies;
10. Family history of eye conditions and relevant systemic diseases;
11. Social history, including racial or ethnic heritage;
12. Review of systems;

B. The exam consists of evaluation of the physiologic function and the anatomic status of the eye and visual system. The following may be employed as part of an eye examination:
1. Assessment of visual acuity and fixation pattern;
2. Binocular alignment and motility;
3. Binocularity/stereoacuity testing;
4. Binocular red reflex (Brückner) test;
5. Pupillary examination;
6. External examination;
7. Anterior segment examination;
8. Cycloplegic retinoscopy/refraction;

9. Funduscopic examination;

C. Other tests may indicated for selected patients, conditions or examination findings:
1. Binocularity/stereoacuity testing;
2. Sensorimotor evaluation (strabismus, suspected neurological disease);

V. Required Intervention:

A. Most patients with abnormal signs and symptoms can be diagnosed and treated solely on the basis of a comprehensive pediatric eye evaluation. Recommendations for appropriate treatment and follow-up will vary with each patient;

B. Optical correction should be considered if the visual acuity can be improved, if ocular alignment can be improved, to prevent or treat amblyopia, to treat strabismus, or if the patient has asthenopia;

C. The goals when prescribing eyeglasses for young children are to achieve good vision, straight eyes, normal binocular vision, and acceptance of the eyeglasses.

Reviews, Revisions, and Approvals	Date	Approval Date
Annual Review	12/2019	12/2019
Converted to new template; Revised to include criteria for pediatric vision screenings and indications for comprehensive eye examination.	08/2020	10/2020
Annual Review	12/2020	12/2020
Annual Review; Restructured Policy	12/2021	12/2021
Annual Review	11/2022	11/2022

References

1. American Academy of Ophthalmology Preferred Practice Patterns Committee, Pediatric Eye Evaluations – PPP 2017, American Academy of Ophthalmology, November 2017. https://www.aao.org/preferred-practice-pattern/pediatric-eye-evaluations-ppp-2017
2. American Optometric Association (AOA) Clinical Practice Guideline Pediatric Eye and Vision Examination, February 12, 2017, American Optometric Association. https://www.aoa.org/optometrists/tools-and-resources/clinical-care-publications/clinical-practice-guidelines.
3. Peterseim MMW, Arnold RW. Vision Screening: Program Models. Knights Templar Eye Foundation, Pediatric Ophthalmology Education Center. Nov 10, 2015. American Academy of Ophthalmology. https://www.aao.org/disease-review/vision-screening-program-models.
4. American Academy of Pediatrics, Committee on Practice and Ambulatory Medicine and Section on Ophthalmology; American Association of Certified Orthoptists; American Association for Pediatric Ophthalmology and Strabismus; American Academy of Ophthalmology. Policy Statement: Eye Examination in Infants, Children, and Young Adults by Pediatricians. *Pediatrics.* 2003;111(4):902-907.
5. Hagan JF, Shaw JS, Duncan PM. Bright Futures, Fourth Edition: Guidelines for Health Supervision of Infants, Children and Adolescents, Pocket Guide. American Academy of Pediatrics. 2017.

Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of

medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. "Health Plan" means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Envolve Vision, Inc. or any of such health plan's affiliates, as applicable.

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This clinical policy does not constitute medical advice, medical treatment or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members. This clinical policy is not intended to recommend treatment for members. Members should consult with their treating physician in connection with diagnosis and treatment decisions.

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Note: For Medicaid members, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

Note: For Medicare members, to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs, LCDs, and Medicare Coverage Articles should be reviewed prior to applying the criteria set forth in this clinical policy. Refer to the CMS website at http://www.cms.gov for additional information.

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