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Q / How should you evaluate a toddler for speech delay?

EVIDENCE-BASED ANSWER

A / USE A BRIEF SCREENING TOOL to assess children for speech and language delay at every preventive visit. If a delay in speech is identified, evaluate the child for potentially treatable causes, starting with a history and physical examination and a formal audiogram. Additional tests and referral to appropriate specialists may be indicated (strength of recommendation

[SOR]: C, expert opinion).

Speech and language therapy improves phonological delays and vocabulary difficulties in young children (SOR: A, systematic review of randomized controlled trials [RCTs]). However, no studies have evaluated long-term outcomes or looked for adverse effects from speech and language screening or interventions.

Evidence summary

Although no studies identify the optimal age or frequency of screening,¹ the American Academy of Pediatrics (AAP) recommends surveillance for developmental delays (including speech and language delay [SLD]) at every preventive visit and additional developmental screening at 9, 18, 24, and 30 months.²

No single standardized tool exists to screen for SLDs; no research compares the tools against each other or offers clear evidence of how sensitive they are.¹ Commonly used brief screening tools include Ages and Stages Parent Questionnaire (ASQ) (1-66 months of age), Denver Developmental Screen II (1-66 months), Early Language Milestone Scale (1-36 months), Clinical Adaptive Test/Clinical Linguistic and Auditory Milestone Scale (<24 months), Infant Developmental Inventory and Child Development Review (1-66 months), and the Fluharty Preschool Speech and Language Screening Tests (3-5 years).

When a child screens positive for speech and language delay

When an SLD is recognized, experts recommend a history and physical examination to evaluate for common causes (TABLE). A detailed history should focus on family, social,

and environmental aspects affecting speech. A comprehensive physical examination should evaluate the child's interaction with the examiner and family members, pronunciation of sounds and words, and include a careful examination of the face, external ears and tympanic membranes, nose, palate, teeth, tongue, and neck.^{3,4}

Experts recommend full audiologic assessment and vision testing for all children with SLD and an electroencephalogram or chromosomal studies if appropriate. When no cause for the SLD is found, experts recommend consulting a speech pathologist. Consultation with an audiologist, psychologist, neurologist, occupational therapist, or social worker also may be helpful.¹⁻⁴

How effective are speech and language interventions?

A systematic review of 14 RCTs evaluated speech and language therapy interventions ranging from 3 to 6 months' duration in preschool children. Investigators reported significant improvements in speech and language outcomes, including articulation, phonation and syntax, and expressive and receptive language with the interventions. Individual studies were limited by small size, heterogeneity, and varied measures of short-term outcomes.¹

TABLE

Common causes of speech and language delays

Autism
Bilingualism
Cerebral palsy
Elective mutism
Expressive language disorder (developmental expressive aphasia)
Hearing loss
Maturation delay (developmental language delay)
Mental retardation
Psychosocial deprivation
Receptive aphasia

Source: Leung A, et al. *Am Fam Physician*. 1999.⁴

A Cochrane meta-analysis of 25 RCTs (N=1539 children, of whom 986 were <5 years) found that speech and language therapy produced similar improvements for preschool and elementary school children. Therapy improved phonological delays significantly (standard mean difference [SMD]=0.44; 95% confidence interval [CI], 0.01-0.86), and vocabulary difficulties even more (SMD=0.89; 95% CI, 0.21-1.56). However, in this review, therapy didn't significantly affect receptive speech difficulties (SMD=-0.04; 95% CI, -0.64 to 0.56).

The analysis didn't evaluate whether specific age groups would respond better to therapy.⁵ No studies evaluated long-term effectiveness or possible harms associated with screening or intervention.⁴

Recommendations

The AAP Council on Children with Disabilities, Section on Developmental Behavioral Pediatrics recommends general developmental surveillance at every well-child visit for children from birth through 3 years of age and more formal screening tests at the 9-, 18-, and 30-month visits. The AAP doesn't recommend a specific screening test, however.²

The US Preventive Services Task Force found insufficient evidence that brief formal screening instruments accurately identify preschool children who would benefit from further evaluation and intervention, but found fair evidence that interventions improve speech in the short term.⁶

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Use a brief screening tool to assess children for speech and language delay at every preventive visit.

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