

<b>Subject: Speech Language Therapy for Children with Developmental Language Delay (Excludes Pervasive Developmental Disorders)</b>		<b>Original Effective Date:</b> 7/5/07
<b>Guidance Number:</b> MCG-035	<b>Revision Date(s):</b> 10/10, 6/29/12, 10/30/13	
<b>Medical Coverage Guidance Approval Date:</b> 10/30/13		

**PREFACE**

*This Medical Guidance is intended to facilitate the Utilization Management process. It expresses Molina's determination as to whether certain services or supplies are medically necessary, experimental, investigational, or cosmetic for purposes of determining appropriateness of payment. The conclusion that a particular service or supply is medically necessary does not constitute a representation or warranty that this service or supply is covered (i.e., will be paid for by Molina) for a particular member. The member's benefit plan determines coverage. Each benefit plan defines which services are covered, which are excluded, and which are subject to dollar caps or other limits. Members and their providers will need to consult the member's benefit plan to determine if there are any exclusions or other benefit limitations applicable to this service or supply. If there is a discrepancy between this policy and a member's plan of benefits, the benefits plan will govern. In addition, coverage may be mandated by applicable legal requirements of a State, the Federal government or CMS for Medicare and Medicaid members. CMS's Coverage Database can be found on the following website: <http://www.cms.hhs.gov/center/coverage.asp>.*

**FDA INDICATIONS**

Speech Therapy is not subject to FDA regulation.

**CENTERS FOR MEDICARE AND MEDICAID SERVICES (CMS)**

*The coverage directive(s) and criteria from an existing National Coverage Determination (NCD) or Local Coverage Determination (LCD) will supersede the contents of this Molina medical coverage guidance (MCG) document and provide the directive for all Medicare members. The directives from this MCG document may be followed if there are no available NCD or LCD documents available and outlined below.*

Speech Language Therapy for Children with Developmental Language Delay (NCD)<sup>1</sup>

CMS does not have a national coverage policy (NCD) available for this specific topic. Speech therapy is a CMS covered benefit.

Speech Language Therapy for Children with Developmental Language Delay (LCD)<sup>1</sup>

There was no available Medicare Local Coverage Determination (LCD) for this specific topic available as of September 13, 2010. Please search the Medicare Local Coverage Determination (LCD) search website for coverage criteria that may be available in your specific region at:

<http://www.cms.gov/mcd/search.asp?clickon=search>

**INITIAL COVERAGE CRITERIA**

Speech therapy may be authorized in patients with developmental language delay when **ALL** of the following criteria are met: **[ALL]**

Area in gray does not apply to South Carolina Members

- ❑ Developmental language delay<sup>38 49</sup> diagnosis in members who are 12 months of age or older when one of the following criteria are met:[**ONE**]
  - There is a State Mandate specifically for coverage of “developmental delay”; **or**
  - In conjunction with the “developmental language delay” diagnosis there is a primary or secondary medically based diagnosis relating to disease, illness, congenital anomaly, or injury such as:
    - Significant swallowing disorder from neurological conditions;
    - Brain injury secondary to trauma, cerebral vascular accident, brain tumor, intrauterine anomaly;
    - Cerebral palsy or other significant neuromuscular disorder
    - Hearing loss: member is 6 months of age or older, except for infants with documented permanent hearing loss<sup>40</sup>  $\geq$  30 to 40db in the frequency region important for speech recognition (500-4000Hz) to detect permanent hearing loss;<sup>43</sup> **and**
  
- ❑ Documentation that one of the following developmental SCREENING<sup>46 47</sup> tests has been completed and the results indicate a speech delay or communication deficit that validates a referral to a speech language pathologist. These screening tests identify a child who is at risk of developmental delay. Screening tests include but are not limited to:
  - Denver II
  - Child Development Inventory or CDI
  - PEDS (Parents’ Evaluation of Developmental Status)
  - The Age and Stages Questionnaire (ASQ)
  - Brigance screens
  - Battelle Developmental Inventory Screening Test (BDIST) or (BDI-2)
  - PEDS Developmental Milestones (PEDS:DM)
  - The Bayley Infant Neurodevelopmental Screener (BINS)
  - Infant-Toddler Checklist for Language and Communication
  - Early Language Milestone (ELM) Scale-2
  - Developmental Profile – 3<sup>rd</sup> Edition (DP-3)

AND

- ❑ Documentation that at least 2 age appropriate Diagnostic Evaluation Assessment TOOLS<sup>47 49</sup> have been completed by a qualified speech-language therapist or pathologist to evaluate if a specific language or communication deficit is present. Examples of diagnostic evaluation tools and assessments may include but are not limited to the following\*:
  - Receptive & Expressive Emergent Language Test, Third ed. (REEL-3)
  - Goldman Fristoe Test of Articulation-2 (GFTA-2)
  - Khan-Lewis Phonological Analysis (KLPA-2)
  - Spanish Articulation Measures (SAM)
  - Oral & Written Language Scales (OWLS)
  - Spanish Language Assessment Procedure (SLAP)

- Clinical Evaluation of Language Fundamentals (CELF-4 Spanish, CELF-4 English)
- Preschool Language Scale (PLS-4 Spanish), PLS-4 English)

**Note:** Scoring for the above Diagnostic TOOLS<sup>46 49</sup> must indicate the following: [ONE]

- A score of 70 or below on a test that has a standard score of 100; or
- A score of at least 2 standard deviations from the mean

\*Additional American Speech Language Hearing (ASHA) diagnostic evaluation tools may be found in the Directory of Speech-Language Pathology Assessment Instruments.<sup>45</sup>

- Articulation disorders may be authorized when there is an underlying medical condition causing the disorder: (not an inclusive list): such as cleft lip/palate, hearing deficit, macroglossia, or cerebral palsy); and:<sup>49</sup>
  - Standardized scoring for articulation language must be 70 or below; and
  - A speech sample shows a minimum of 50 utterances to validate the speech disorder
- Prescriber is the member's primary care physician or their physician designee and provides a written order; **and**
- Initial evaluation and therapy performed by a qualified speech-language therapist who has determined a treatable speech-language delay/disorder exists; **and**
  - Only one speech therapy evaluation (CPT 92506, S9152) is allowed for a course of treatment
- Physician referral to an Early Intervention program (EIP) for children 0 to 35 months of age or school based therapy program in older children<sup>38</sup> is initiated to provide speech therapy as a first option
  - Individualized speech therapy will not be authorized if the services are being provided concurrently by any state or federal agency such as EIP, or local school district
- Documentation review includes the following:[**ALL**]<sup>33</sup>
  - Clinically documented speech disorder resulting in the inability to achieve age appropriate speech milestones
  - Initial findings and post-testing results showing progress
  - Expectation that the patient's condition will improve significantly in reasonable time period
  - Results of specific standardized tests, or assessments used to determine the individual's level of functional communication; the results of testing must show standardized scores as well as scaled scores when applicable<sup>39</sup>
  - Objective, measurable, and functional descriptions of an individual's deficits
  - Plan of care with specific treatment techniques and/or exercises to be used
  - Frequency and duration of treatment plan
  - Measurable long-term and short-term goals and how measured and reported every two weeks
  - Reasonable estimate of when goals will be reached
  - Level and complexity of services requested can only be rendered safely and effectively by a licensed speech and language pathologist or audiologist

- Requested therapy provides, specific, effective, and reasonable treatment based upon the individual's diagnosis and physical condition, include corresponding CPT codes that will be billed
- Feasibility of training parent(s) or caregiver(s) based on outlined goals; strategy to transition care to patient or caregiver maintenance program

*Note:* A series of 3-5 visits may be necessary to train the parent(s) or caregiver(s);

#### Initial Authorization- Number of Treatments<sup>35</sup>

May authorize up to 10 treatments of initial therapy with written progress reports every two weeks required for continuation.<sup>35</sup>

#### AMR Reviewer Statement on Number of Treatments:

- Mild delay: May take up to 8 to 10 sessions<sup>39</sup>
- Severe delay: several months<sup>39</sup>

➤ “If the communication problem is mild it may take about 8 to 10 sessions. If the disorder is severe it could take several months depending on the medical condition associated with the need for Speech Therapy.” AMR Reviewer (Board certified in Board certified in Speech Pathology), 2010

**NOTE:** There are no universal guidelines on what type of intervention to offer children with primary speech and language delay/disorder or on its' timing, nor is there consistent evidence on which to base a decision.<sup>20</sup>

### **CONTINUATION OF THERAPY**

- Documentation of written progress reports every 2 weeks from the speech therapist is required and must include **ALL** of the following:[**ALL**]<sup>33</sup>
  - Start of care date
  - Time period covered by the report
  - Communication diagnosis
  - Statement of the functional communication at the beginning of the progress report period
  - Statement of current status compared to the evaluation baseline data and prior progress reports, including objective measures of communication in functional terms that relate to the treatment goals
  - Member's response to treatment and progress toward goals
  - Changes in prognosis and reason for the change
  - Changes in the plan of care and reason for the change
  - Consultations with other professionals, when applicable
  - Signature and title of qualified professional responsible for the therapy
- To continue speech therapy after 6 months a re-evaluation must be done that includes documentation of scores from 2 different Diagnostic Evaluation Assessment TOOLS (see initial coverage criteria above)

### **Discontinuation of Speech/language Therapy**

- Indications for discontinuation of services include one or more of the following criteria:[ONE]<sup>33,44</sup>
  - Goals have been achieved
  - Treatment is refused or the member is non-compliant
  - The speech, language, communication disorder is within normal limits or consistent with the individual's premorbid status. Maximum potential for improvement has been achieved
  - Development of a maintenance program once the member has completed the speech/language therapy initial goals and/or the skills of a therapist are not required
  - Medical condition develops that precludes treatment
  - Measurable improvements/no change in status have not been demonstrated as indicated by the treatment plan after 3 consecutive sessions<sup>39</sup>
  - Individual state benefit coverage limitations have been exhausted

**NOTE:** There are no universal guidelines on what type of intervention to offer children with primary speech and language delay/disorder or on its' timing, nor is there consistent evidence on which to base a decision.<sup>20</sup>

#### COVERAGE EXCLUSIONS

All other requests for treatment that do not meet the 'Coverage Criteria' section above may **not** be authorized including the following:

- Self-correcting dysfunctions such as language therapy for normal non-fluency<sup>39</sup>
  - children between the ages of 2 and 5 years may experience normal non-fluency and speech therapy may not be authorized for this condition<sup>49</sup>
- Procedures that can be effectively performed by a nonprofessional (e.g., caregiver, family member or school system) after instruction and training are completed, such as nondiagnostic routine, repetitive and reinforced services or procedures and the practicing of word drills.
- Duplicate therapies of the same treatment from two different Rehabilitative providers (Occupational or Physical Therapy in conjunction with Speech Therapy).
- Maintenance therapy in which no additional functional progress is being made or unless a change in status occurs that would require a reevaluation.
- Speech therapy for a mental health diagnosis
- Facilitated Communication (FC), auditory integration training (AIT), and sensory integration (SI) therapy<sup>2</sup>
- Computer-based learning programs for speech training such as Fast ForWord<sup>2</sup>
- Therapy to improve or enhance school, recreational, or job performance
- Long term rehabilitative services when significant therapeutic improvement is not expected
- Therapy that is considered primarily for the enhancement of educational purposes whereas services are provided by public or private educational agencies (e.g., developmental delays without a medical diagnosis).<sup>38,39</sup> Refer to the following information:

Individualized Education Program (IEP)/Extended Year Program for children with developmental delay [ALL]:

- ❑ When applicable, an IEP referral, for school-aged children should be completed by the primary care physician and submitted to the school district.
- ❑ Speech therapy services denied by the school district, including summer services/extended year programs, and not covered in a child's IEP will be reviewed by the Health Plan for medical necessity in accordance with the member's state specific guidelines and the information contained within this guideline
- ❑ Interim summer programs are provided by school districts for children whose handicap conditions are severe enough to exhibit the need for a structured learning environment of 12 months to continue with achieving appropriate developmental gains
- ❑ For preschool children, summer instruction must be available for those disabilities severe enough that a structured learning program of 12 months duration is required to prevent substantial regression. These requests will be reviewed by the Molina Health plan for medical necessity in accordance with the member's state specific contractual arrangements and the information contained within this guideline.

*Note: State Education codes allow for speech therapy services for children age 3 and older who demonstrate significant speech/language deficits interfering with the child's education potential to be obtained through the school system following an evaluation process. In addition, each state has an early intervention process to address the needs associated with children ages 0-3. (Refer to the General Information section for specific information regarding these processes).*

**DESCRIPTION OF PROCEDURE/SERVICE/PHARMACEUTICAL**

There is no universally accepted classification of childhood communication disorders.<sup>8</sup> A speech disorder refers to an impairment of the articulation of speech sounds, fluency, and or voice disorders.<sup>7,8</sup> A language disorder refers to impaired comprehension with or without the use of spoken, written, and/or symbol systems. It may involve grammar, morphology, syntax, vocabulary, or functional (pragmatic) use of language.

Speech disorders result from the following:<sup>7</sup>

- Articulation disorders- Difficulty with the production of speech sounds resulting from hearing impairment, neurologic problems (dysarthrias-caused by neuromuscular impairment from brain tumor, stroke, or nervous system such as cerebral palsy), apraxia (difficulty coordinating mouth and speech movements), structural defects
- Fluency Disorders- Stuttering
- Voice Disorders- Related to misuse or organic changes

Language has includes the following four components:<sup>6,32</sup>

- Semantics- the study of vocabulary and word meaning
- Phonological- the ability to produce and discriminate the specific sounds of a given language
- Syntax- the individuals grammar or ability to combine words into sentences
- Pragmatics- the ability to use language in interactions with others

Language disorders may be acquired or developmental. Acquired language disorders include degenerative neurological disorders, infection, head injury or neglect and abuse. Language Disorders include two subtypes of developmental language disorders:<sup>7</sup>



- Expressive language (involves articulation, voice and fluency) impairment as defined by two diagnostic criteria:
  - Scores on standardized individually administered measures of language development are substantially below those obtained from standardized measures of both receptive language development and nonverbal intellectual capacity
  - The language development interferes with academic or occupational achievement or with social communication
  
- Mixed receptive expressive language impairment is an impairment in receptive (reception of sensory information) and language as demonstrated by scores on standardized tests. This may involve verbal and sign language or difficulty understanding words, sentences, or specific types of words.

Developmental delay has been defined as the condition in which a child age 7 years or younger<sup>38</sup> is not developing and/or achieving skills according to the expected timeframe.<sup>5</sup> After age 7 years, any residual deficits are less likely to resolve and are best termed “disorders”. Developmental language delay occurs in 5 to 10 percent of children and is considered the most common developmental disability of childhood.<sup>2</sup> They may involve comprehension, expressive or total language development. Delays in communication and language development are typically evident by 18 months of age<sup>5</sup> but may be identified by 6 months of age, or not until after 36 months of age.<sup>38</sup> The development of speech and language has demonstrated to be a useful indicator of a child’s cognitive ability and overall success in school.<sup>2,3</sup> Language is the most useful indicator.<sup>38</sup> Parents should advocate for their children in the school system to receive the services they need and ensure the condition is monitored throughout periodic school reevaluations.<sup>2</sup> Speech and language delay/disorder may be present as a primary condition, when it cannot be accounted for by any known etiology, or as a secondary condition, where it is present due to another primary condition such as hearing loss, autism spectrum disorder, general developmental difficulties, neurological impairment, or behavioral and emotional difficulties.<sup>4</sup>

Delayed development in language (Late Talker) may be caused by anatomic structural defects such as cleft palate, hearing impairment, oral motor or neuromotor dysfunction, intellectual disability (previously called mental retardation), verbal apraxia, developmental language delays or disorders, pervasive developmental delay or verbal apraxia.<sup>6</sup>

This document includes speech and language impairments from developmental delays excluding pervasive disorders (pervasive developmental disorder not otherwise specified (PDD-NOS), autism, Asperger syndrome, and childhood disintegrative disorders), acquired speech or language disorders, stuttering, and voice impairments.

## GENERAL INFORMATION

### Summary of Medical Evidence

#### Hearing Loss

It has been recommended that all children with delayed speech and language have an audiometric assessment to detect hearing loss that may be contributing to the speech impairment.<sup>2,6</sup> Significant hearing loss occurs in one to two per 1000 newborns; early childhood deafness occurs in two per 1000 children.<sup>9</sup> Nearly all children will develop

transient hearing loss related to ear infections during the period from birth to 11 years of age. Children with permanent hearing loss should be managed by a multidisciplinary team including a speech pathologist.<sup>10</sup> Early identification (between 3 to 6 months of age) and effective treatment of hearing loss has shown to improve language, communication, and cognitive skills.<sup>11-15</sup>

### Screening Tests

The value of standardized screening tests as the only tool for assessing communication impairments has been challenged.<sup>2</sup> The U.S. Preventive Task Force has indicated there is insufficient evidence to recommend for or against the use of a screening tool for children age 5 and under. The chance for false positives due to the potential for isolating and measuring only certain aspects of communication without consideration of others can be an issue with some of these tests.<sup>3</sup> However the American Academy of Pediatrics recommends the use of a screening tool in addition to information from parents and the medical examination to assist in identifying developmental delays.<sup>5</sup>

### Early Intervention

It has been demonstrated that early intervention services produce improved outcomes for children.<sup>24-26</sup> The children that participated in these services had higher rates of high school completion, lower rates of grade retention and lower rates of juvenile arrests.<sup>24</sup> Early intervention programs have shown to reduce the cost of public resources for health, education and public assistance services.<sup>25</sup> A study with 30 preschool aged children with severe phonologic disorders were randomized to receive four months of therapy followed by four months of no treatment or four months of no treatment followed by four months of therapy.<sup>27</sup> The children that received early therapy had greater improvement in speech intelligibility at both 4 and 8 months. Language skills have also demonstrated improvement in children with delayed language. A study of 21 toddlers with delayed language development were randomly assigned to early versus delayed treatment groups, the early treatment group demonstrated improvement in five linguistic areas: mean length of utterance, lexical repertoire, total number of words, number of different words, and percentage of intelligible utterances.<sup>28</sup>

The Program for Infants and Toddlers with Disabilities (Part C of the Individuals with Disabilities Education Act [IDEA]) provides funding to states to operate statewide programs for Early Intervention services for infants and toddlers and their families.<sup>36</sup> Under part C, states **must** provide services to any child “under 3 years of age who needs early intervention services” (IDEA 2004, §632(5) (A)) because the child:

- (i) is experiencing developmental delays, as measured by appropriate diagnostic instruments and procedures in 1 or more of the areas of cognitive development, physical development, communication development, communication development, social or emotional development, and adaptive development; or
- (ii) has a diagnosed physical or mental condition which has a high probability of resulting in developmental delay” (IDEA 2004, §632(5)(A))<sup>34</sup>

A state also **may** provide services, at its discretion, to at risk infants and toddlers. An at risk infant or toddler is defined under Part C as “an individual under 3 years of age who would be at risk of experiencing a substantial developmental delay if early intervention services were not provided to the individual” (IDEA 2004, (IDEA 2004, §632(1)).<sup>34</sup>



## Individuals with Disabilities Education Act (IDEA)

Speech or language therapy not meeting the requirements of medical necessity, but that may likely be helpful for school-age children can usually be obtained through the school system.<sup>35</sup> State Education Codes allow for speech therapy services for children age 3 and older who demonstrate significant speech/language deficits interfering with the child's education potential.

The Individuals with Disabilities Education Act (IDEA) is a federal law designed to protect the rights of students with disabilities by ensuring that everyone receives a free appropriate public education regardless of ability.

Special education services are individualized to meet the unique needs of students with disabilities and are provided in the least restrictive environment. Special education may include individual or small group instruction, curriculum or teaching modifications, assistive technology, transition services and other specialized services such as physical, occupational, and speech therapy. These services are provided in accordance with an Individualized Education Program (IEP), which is specifically tailored to the unique needs of each student.

The Individuals with Disabilities Education Act (IDEA) mandate the "early identification of, and intervention for developmental disabilities through the development of community-based systems."<sup>16</sup> This law requires physicians to refer children with suspected developmental delays to appropriate early intervention services in a timely manner. All states receive federal funding to provide appropriate intervention through infant and child-find programs for children with developmental delays.

Children from birth to age 21 and 11 months, who meet the eligibility criteria in one of thirteen qualifying disabilities and who require special education services because of the disability can qualify for services under IDEA. The categories of disabilities are; autism, deaf/blind, deafness, hearing impaired, mental retardation, multiple disabilities, orthopedic impairment, serious emotional disturbance, specific learning disabilities, speech or language impairment, traumatic brain injury, visual impairment including blindness, and other health impairment. To be eligible, a student must have a disability that adversely affects her or his educational performance and must need special education in order to receive an appropriate education.

Children who qualify under IDEA are provided with services and accommodations individualized to their needs. At its most basic IDEA entitles a child suspected of having a disability to a comprehensive evaluation by a multi-disciplinary team provided at no cost to parents. If the child is determined to need special education and related services an Individual Education Plan (IEP) will be implemented based on the specific needs of the child as decided by the team, including parents.

Once covered under an IEP, students with disabilities are re-evaluated at least every three years and their IEP is reviewed whenever a change in placement occurs, which is often annually as transferring from grade to grade is considered a change in placement.

It has been reported in the literature that delays in communication and language development are evident by 18 months of age.<sup>5</sup> Interventions can be effective in children with delayed language development at 18 months of age.

## Cochrane Reviews

A Cochrane meta-analysis of 25 studies was used to determine the effectiveness of speech and language intervention for children with a primary diagnosis of speech/language delay/disorder.<sup>20</sup> The oldest participants were 15 years of age. The authors concluded that speech and language therapy is effective for children with phonological or vocabulary difficulties, but there is a lack of evidence that interventions are effective for children with receptive difficulties, and no conclusion could be drawn for the use of expressive syntax interventions. There was also no significant difference found in therapy administered by a professional versus therapy provided by a trained parent, or that group interventions produced better outcomes than individual interventions. The studies did show that using peers with normal language as part of the intervention did have a positive impact on therapy outcomes.

A Cochrane analysis was conducted to evaluate the efficacy of speech therapy intervention versus no intervention in children under age three.<sup>29</sup> The review also evaluated the effectiveness of various types of interventions in improving the speech intelligibility of children with dysarthria. There were no randomized trials or group studies that were identified. Observational studies were found that demonstrated teaching interventions to include the production of slow, loud speech to children with dysarthria may produce increases in speech intelligibility, clarity and voice quality. The authors concluded there was no strong evidence regarding the effectiveness of speech and language therapy to improve speech in children with early acquired dysarthria.

A Cochrane review was attempted to determine the efficacy of intervention delivered by Speech and language Pathologist(s)/Speech and Language Therapists to evaluate Childhood Apraxia of Speech (CAS).<sup>21</sup> CAS in children have difficulty making sounds in the right order, which makes it difficult for people to understand them when speaking. The review identified 31 articles that were excluded following evaluation as they did not meet study design criteria. The authors concluded that there are too few well-controlled studies in this area to draw conclusions regarding the efficacy of treatment for CAS.

A Cochrane review was performed to determine the effectiveness of different types of speech and language therapy in children with cerebral palsy.<sup>30</sup> The review also evaluated the effectiveness of speech language therapy that has a focus on the child and their familiar communication partners measured by a change in their interaction patterns. Eleven studies were included in the analysis. Seven studies focused on the type of treatment given directly to children and four studies evaluated the effects of training with communication partners. There was a wide variation among the studies in age, cognitive and linguistic skills, and severity and type of cerebral palsy. Methodological flaws prevent firm conclusions being made about the effectiveness of therapy. The studies targeting communication partners describe small exploratory group projects which contain insufficient detail to allow replication, have very low power and cannot provide evidence of effectiveness of this type of treatment. The authors concluded that there is currently no strong evidence regarding the positive effects of speech language therapy for children with cerebral palsy or their communication partners compared with no intervention at all. There is no change in practice recommended from the review.

#### Agency for Healthcare Research and Quality

The Agency for Healthcare Research and Quality conducted a meta-analysis containing twenty five randomized-control trials (1 rated good, 13 fair, and 11 poor quality)<sup>31</sup> to determine if speech and language interventions improve speech and language outcomes for preschool ages 0 to 5. Studies evaluated the effects of individual or group therapy directed by clinicians and/or parents focusing on specific speech and language domains. These

include expressive and receptive language, articulation, phonology, lexical acquisition, and syntax. The following results were found:

0 to 2 year age group: No studies exclusively examined this age group. A single good quality study of children 18 to 42 months identified therapist directed, 12 months of 10-minute weekly interventions working on multiple language domains including phonology and receptive and expressive language. The results indicated therapy for receptive auditory comprehension showed significant improvement when directed by the therapist as compared to the control group. Results for expressive and phonology outcomes did not differ between the groups.

2 to 3 years: One good and 6 fair quality studies were included. Clinician directed treatment for receptive and expressive language, and receptive auditory comprehension showed improved. Parent directed therapy for expressive delays also showed improvements. Group therapy and clinician directed approaches demonstrated improvement in lexical acquisition. In 3 studies, there were no between group differences for clinician-directed expressive or receptive language therapy, parent directed expressive or receptive therapy, or parent-directed phonology treatment.

3 to 5 years: Five fair quality studies identified significant improvements when compared to control group interventions. In 2 studies, there were no differences found. Clinician directed and group based interventions were both successful at improving receptive and expressive competencies.

Limitations of studies, in general, include small numbers of participants (only 4 studies enrolled more than 50 subjects), lack of consideration of potential confounders, and disparate methods of assessment, intervention, and outcome measurement. As a result, conclusions about effectiveness are limited.

### Long Term Outcomes

Children with isolated speech disorders have better long term outcomes than children with both language and speech impairment.<sup>2</sup> Signs of persisting difficulty are found in both groups, mainly in children who have continued impairments after age 5.

### Professional Organizations

The American Academy of Pediatrics recommends ongoing surveillance and screening of developmental disorders.<sup>5</sup> Standardized screening tests should be administered at 9, 18 and 30 –month visits and for individuals whose surveillance yields concerns regarding the potential for delayed development. Developmental concerns should be addressed throughout the first 5 years of life during preventive care visits. Five components of surveillance should be performed: documenting and maintaining a developmental history; making accurate observations of the child; eliciting and attending to the parents' concerns regarding their child's development; and maintaining an accurate record of documenting the process and findings. Once a high risk child is identified determining the cause through medical examination and referral is required. Children with developmental concerns should be referred to early intervention and early-childhood programs. Relationships should be established with state and local services, programs, and resources.

**CODING INFORMATION**

<b>CPT</b>	<b>Description (Only covered in conjunction with a primary medical diagnosis or if a State Mandate for coverage of Developmental Delay)</b>
92506	Evaluation of speech, language, voice, communication, and/or auditory processing (Only one speech therapy evaluation (CPT 92506, S9152) is allowed for a course of treatment)
92507	Treatment of speech, language, voice, communication, and/or auditory processing disorder; individual
92508	Treatment of speech, language, voice, communication, and/or auditory processing disorder; group, 2 or more individuals (NOT COVERED)
92521	Evaluation of speech fluency (eg, stuttering, cluttering)
92522	Evaluation of speech sound production (eg, articulation, phonological process, apraxia, dysarthria)
92523	Evaluation of speech sound production (eg, articulation, phonological process, apraxia, dysarthria); with evaluation of language comprehension and expression (eg, receptive and expressive language)
92524	Behavioral and qualitative analysis of voice and resonance

<b>HCPCS</b>	<b>Description (Only covered in conjunction with a primary medical diagnosis or if a State Mandate for coverage of Developmental Delay)</b>
G0153	Services of a speech and language pathologist in home health or hospice settings, each 15 minutes
G0161	Services performed by a qualified speech-language pathologist, in the home health setting, in the establishment or delivery of a safe and effective speech-language pathology maintenance program, each 15 minutes
S9128	Speech therapy, in the home, per diem
S9152	Speech therapy, reevaluation (Only one speech therapy evaluation (CPT 92506, S9152) is allowed for a course of treatment)

<b>ICD-9</b>	<b>Description (Only covered in conjunction with a primary medical diagnosis or if a State Mandate for coverage of Developmental Delay)</b>
315.00	Reading disorder, unspecified
315.01	Alexia
315.02	Developmental dyslexia
315.09	Other, Specific spelling difficulty

315.1	Mathematics disorder, Dyscalculia
315.2	Other specific learning difficulties, Disorder of written expression
315.31	Expressive language disorder, Developmental aphasia and Word deafness
315.32	Mixed receptive-expressive language disorder
315.34	Speech and language developmental delay due to hearing loss
315.39	Other, Developmental articulation disorder; Dyslalia; Phonological disorder
315.5	Mixed development disorder
315.8	Other specified delays in development
315.9	Unspecified delay in development
388.40-388.45	Other abnormal auditory perception
389.00-389.9	Hearing impairment or loss
784.61	Alexia and dyslexia
<b>ICD-10</b>	<b>Description (Only covered in conjunction with a primary medical diagnosis or if a State Mandate for coverage of Developmental Delay)</b>
F81.0	Specific reading disorder
R48.0	Dyslexia and alexia
F81.0	Specific reading disorder
F81.81	Disorder of written expression
F81.81	Disorder of written expression
F81.89	Oth dvlpmentl d/o scholastic skills
F80.1	Expressive language disorder
F80.2	Mixed receptive-expressive language d/o
H93.25	Central auditory processing disorder
F80.4	Speech & language dvlpmentl delay d/t hearing loss
F80.89	Oth dvlpmentl d/o speech & language
F80.9	Developmental d/o speech & language uns

F82	Specific dvlpmentl d/o motor function
F88	Oth d/o of psychological development
F81.9	Developmental d/o of scholastic skills uns
F89	Unspec d/o psychological development
H93.241	Temporary auditory threshold shift rt ear
H93.242	Temporary auditory threshold shift lt ear
H93.243	Temporary auditory threshold shift bilat ear
H93.249	Temporary auditory threshold shift uns ear
H93.291	Other abnormal auditory perceptions rt ear
H93.292	Other abnormal auditory perceptions lt ear
H93.293	Oth abnormal auditory perceptions bilat ear
H93.299	Oth abnormal auditory perceptions uns ear
H93.221	Diplacusis right ear
H93.222	Diplacusis left ear
H93.223	Diplacusis bilateral ears
H93.229	Diplacusis unspecified ear
H93.231	Hyperacusis right ear
H93.232	Hyperacusis left ear
H93.233	Hyperacusis bilateral ears
H93.239	Hyperacusis unspecified ear
H93.299	Oth abnormal auditory perceptions uns ear
H93.211	Auditory recruitment right ear
H93.212	Auditory recruitment left ear
H93.213	Auditory recruitment bilateral ears
H93.219	Auditory recruitment unspecified ear
H93.299	Oth abnormal auditory perceptions uns ear



H90.2	Conductive hearing loss unspecified
H90.0	Conductive hearing loss bilateral
H90.11	Conductive hl uni rt ear unrestricted contrlat side
H90.12	Conductive hl uni lt ear unrestricted contrlat side
H90.2	Conductive hearing loss unspecified
H90.0	Conductive hearing loss bilateral
H90.11	Conductive hl uni rt ear unrestricted contrlat side
H90.12	Conductive hl uni lt ear unrestricted contrlat side
H90.2	Conductive hearing loss unspecified
H90.0	Conductive hearing loss bilateral
H90.11	Conductive hl uni rt ear unrestricted contrlat side
H90.12	Conductive hl uni lt ear unrestricted contrlat side
H90.2	Conductive hearing loss unspecified
H90.0	Conductive hearing loss bilateral
H90.11	Conductive hl uni rt ear unrestricted contrlat side
H90.12	Conductive hl uni lt ear unrestricted contrlat side
H90.2	Conductive hearing loss unspecified
H90.11	Conduct hl uni rt ear unrestricted contrlat side
H90.12	Conduct hl uni lt ear unrestricted contrlat side
H90.0	Conductive hearing loss bilateral
H90.0	Conductive hearing loss bilateral
H90.11	Conduct hl uni rt ear unrestricted contrlat side
H90.12	Conduct hl uni lt ear unrestricted contrlat side
H90.2	Conductive hearing loss unspecified
H90.5	Unspecified sensorineural hearing loss
H90.3	Sensorineural hearing loss bilateral

H90.3	Sensorineural hearing loss bilateral
H90.41	Sensorinurl hl uni rt ear unrestricted cntrlat side
H90.42	Sensorinurl hl uni lt ear unrestricted cntrlat side
H90.3	Sensorineural hearing loss bilateral
H90.41	Sensorinurl hl uni rt ear unrestricted cntrlat side
H90.42	Sensorinurl hl uni lt ear unrestricted cntrlat side
H90.5	Unspecified sensorineural hearing loss
H90.41	Sensorinurl hl uni rt ear unrestricted cntrlat side
H90.42	Sensorinurl hl uni lt ear unrestricted cntrlat side
H90.5	Unspecified sensorineural hearing loss
H90.41	Sensorinurl hl uni rt ear unrestricted cntrlat side
H90.42	Sensorinurl hl uni lt ear unrestricted cntrlat side
H90.3	Sensorineural hearing loss bilateral
H90.8	Mixed conductive sensorineural hearing loss unspec
H90.71	Mix hear loss uni rt ear unrestrct contrlat side
H90.72	Mix hear loss uni lt ear unrestrct contrlat side
H90.6	Mix conductive sensorineural hear loss bilateral
H91.3	Deaf nonspeaking not elsw classified
H91.01	Ototoxic hearing loss right ear
H91.02	Ototoxic hearing loss left ear
H91.03	Ototoxic hearing loss bilateral ears
H91.09	Ototoxic hearing loss unspecified ear
H91.8x1	Other specified hearing loss right ear
H91.8x2	Other specified hearing loss left ear
H91.8x3	Other specified hearing loss bilateral
H91.8x9	Other specified hearing loss unspec ear

H91.90	Unspecified hearing loss unspecified ear
H91.91	Unspecified hearing loss right ear
H91.92	Unspecified hearing loss left ear
H91.93	Unspecified hearing loss bilateral ears
R48.0	Dyslexia and alexia

#### RESOURCE REFERENCES

- Centers for Medicare & Medicaid Services (CMS) Medicare Coverage Database Homepage. Accessed on 6/18/2010 from: <http://www.cms.hhs.gov/mcd/search.asp>
- Carter J, Musher K, Duryea T et al. Evaluation and treatment of speech and language disorders in children. In: UpToDate, Rose, BD (Ed), UpToDate, Waltham, MA, May, 2010. Updated July 2013.
- Nelson HD, Nygren P, Walker M, Panoscha R. Screening for speech and language delay in preschool children: systematic evidence review for the US Preventive Services Task Force. *Pediatrics* 2006;117; e298-e319.
- Law, J, Garrett Z, Nye C. The efficacy of treatment for children with developmental speech and language delay: a meta-analysis. *Journal of Speech, Language, and Hearing Research*. August, 2004;47:924-943.
- Council on Children with Disabilities, Section on Developmental Behavioral Pediatrics, Bright Futures Steering Committee and Medical Home Initiatives for Children with Special Needs Project Advisory Committee. Identifying infants and young children with developmental disorders in the medical home: an algorithm for developmental surveillance and screening. *Pediatrics* 2006; 118; 405-420.
- Duryea TK, Drutz JE, Augustyn M, Torchia MM. Emergent literacy including language development. In: UpToDate, Rose, BD (Ed), UpToDate, Waltham, May, 2010. Updated July 2013.
- Carter J, Musher K, Augustyn M, Torchia MM. Etiology of speech and language disorders in children. In: UpToDate, Rose, BD (Ed), UpToDate, Waltham, May, 2010. Updated July 2013.
- Simms MD, Schum RL. Language Development and Communication Disorders. Kliegman: In: Nelson Textbook of Pediatrics. 18<sup>th</sup> Ed. B Saunders; 2007. MD Consult Web site.
- Sanford B, Weber PC, Isaacson GC, TePas E. Etiology of hearing impairment in children. In: UpToDate, Rose, BD (Ed), UpToDate, Waltham, May, 2010. Updated July 2013.
- Sanford B, Weber PC, Isaacson GC, TePas E. Treatment of hearing impairment in children. In: UpToDate, Rose, BD (Ed), UpToDate, Waltham, May, 2010. Updated July 2013.
- Yoshinaga IC, Sedey AL, Coulter DK, Mehi AL. Language of early and later-identified children with hearing loss. *Pediatrics* 1998 Nov;102(5):1161-71.
- Watkin P, McCann D, Law C et al. Language ability in children with permanent hearing impairment: the influence of early management and family participation. *Pediatrics*. 2007 Sept;120(3): e694-701.
- Downs MP, Yoshinaga-Itano C. The efficacy of early intervention for children with hearing impairment. *Pediatric Clin North America* 1999 February; 46(1):79-87.
- Yoshinaga-Itano C. Benefits of early intervention for children with hearing loss. *Otolaryngology Clinics North America* 1999 Dec;32(6):1089-102.
- Vohr B, Jodoin-Krauzyk J; Tucker R et al. Early language outcomes of early-identified infants with permanent hearing loss at 12 to 16 months of age. *Pediatrics*. 2008 Sept;122(3):535-44.

16. Individuals With Disabilities Education Act Amendments of 1997 (Pub L No 105-117).
17. Screening for Speech and Language Delay in Preschool Children, Topic Page. February 2006. U.S. Preventive Services Task Force. <http://www.uspreventiveservicestaskforce.org/uspstf/uspschdv.htm>
18. Feightner JW. Canadian Guide to Clinical Preventive Health Care: Preschool Screening for Developmental Problems, Chapter 26.
19. Nelson, H.D., Nygren, P., Walker, M., Panoscha, R., (2006) Screening for Speech and Language Delay in Preschool Children. Agency for Healthcare Research and Quality, Systematic Evidence Review, Number 41. No. 290-02-0024. Accessed at: <http://www.ahrq.gov/downloads/pub/prevent/pdfser/speechsyn.pdf>
20. Law J, Garrett Z, Nye C. Speech and language therapy interventions for children with primary speech and language delay or disorder. Cochrane Database of Systematic Reviews 2003, Issue 3, Art No.: CD004110. DOI:10.1002/14651858.CD004110.
21. Morgan AT, Vogel AP. Intervention for childhood apraxia of speech. Cochrane Database of Systematic reviews 2008, Issue 3. Art No.: CD006278. DOI:10.1002/14651858. CD006278.pub2.
22. Pennington L, Miller N, Robson S. Speech therapy for children with dysarthria acquired before three years of age. Cochrane Database of Systematic Reviews 2009, Issue 4. Art No: CD006937. DOI:20.1002/14651858.CD006937.pub2.
23. Boyle J, McCartney E, Forbes J, O'hare. A randomized controlled trial and economic evaluation of direct versus indirect and individual versus group modes of speech and language therapy for children with primary language impairment.
24. Barnett WS, Masse LN. Comparative benefit-cost analysis of the Abecedarian program and its policy implications. Econ Education Review 2007;26:113-125.
25. Reynolds AJ, Temple JA, Robertson DL, Mann Ea. Long-term effects of an early childhood intervention on educational achievement and juvenile arrest: a 15-year follow-up of low-income children in public schools. JAMA 2001;285:2339-2346.
26. Poon JK, LaRosa AC, Pai S. Developmental delay: timely identification and assessment. Indian Pediatrics. May, 2010 47:415-422.
27. Almost D, Rosenbaum P. Effectiveness of speech intervention for phonological disorders: a randomized controlled trial Deve Med Child Neurology 1998;40:319.
28. Robertson SB, Weismer SE. Effects of treatment on linguistic and social skills in toddlers with delayed language development. Journal of Speech Language Hearing Res 1999;42:1234.
29. Lee AS-Y, Gibbon FE. Non-speech oral motor treatment for developmental speech sound disorders in children. Cochrane Database of Systematic Reviews 2011, Issue 10. Art. No.: CD009383. DOI: 10.1002/14651858.CD009383
30. Pennington L, Goldbart J, Marshall J. Speech and language therapy to improve the communication skills of children with cerebral palsy. Cochrane Database of Systematic Reviews 2003, Issue 3. Art.No.:CD003466.DOI: 10.1002/14651858.CD003466.pub2.
31. Agency for Healthcare Research and Quality. Screening for Speech and Language Delay in Preschool Children. No 41. February, 2006. Accessed at: <http://www.ahrq.gov/downloads/pub/prevent/pdfser/speechsyn.pdf>
32. Busair JO, Weggelaar NM. How to investigate and manage the child who is slow to speak. BMJ January, 2004;328:272-276.
33. American Speech-Language-Hearing Association. Overview of documentation for medicare outpatient therapy services. 2013 Accessed at: [http://www.asha.org/practice/reimbursement/medicare/medicare\\_documentation.htm](http://www.asha.org/practice/reimbursement/medicare/medicare_documentation.htm)

34. Shackelford, J., (2006). State and jurisdictional eligibility definitions for infants and toddlers with disabilities under IDEA. (NECTAC Notes, No.21). Chapel Hill: The University of North Carolina, FPG Child Development Institute, National Early Childhood Technical Assistance Center.
  35. Bischel MD. Speech-language therapy review criteria guidelines, Volume II. Apollo's Managing Physical/Occupational/Speech Therapy & Rehabilitation Care. Updated 2010.
  36. Cortiella, C., (2004) IDEA Parent guide: a comprehensive guide to your rights and responsibilities under the individuals with disabilities act (IDEA 2004). National Center for Learning Disabilities, New York, New York.
  37. Sanford B, Weber PC, Isaacson GC, et al. Treatment of hearing impairment in children. In: UpToDate, Rose, BD (Ed), UpToDate, Waltham, May, 2010. Updated July 2013.
  38. Advance Medical Review. Independent Specialist Review. Physician Reviewer Board Certified in Pediatrics and Behavioral & Developmental Medicine. October 10, 2010.
  39. Advance Medical Review. Independent Specialist Review. Speech Pathologist Board Certified in Speech Pathology. October 11, 2010.
  40. Gifford KA, Holmes MG, Bernstein HH. Hearing Loss in Children. Pediatric Review 2009;30:207-216.
  41. Hamilton S, Screening for developmental delay: Reliable, easy-to-use tools. The Journal of Family Practice May 2006 · Vol. 55, No. 5
  42. LaRosa A, Glascoe F, Augustyn M. Developmental and behavioral screening tests in primary care. . In: UpToDate, Rose, BD (Ed), UpToDate, Waltham, May, 2010. Updated July 2013.
  43. Joint Committee on Infant Hearing. Policy Statement Year 2007 position statement: principles and guidelines for early hearing detection and intervention programs. Pediatrics. October 2007; 120:4:898-921 (doi:10.1542/peds.2007-2333).
  44. American Speech-Language-Hearing Association. (2004). Admission/Discharge Criteria in Speech-Language Pathology [Guidelines]. Available from [www.asha.org/policy](http://www.asha.org/policy).
- 2012 Update**
45. American Speech Language Hearing Association (ASHA). Directory of Speech-Language Pathology Assessment Instruments. Accessed at: <http://www.asha.org/assessments.aspx>
  46. Advance Medical Review. Independent Specialist Review. Physician Reviewer Board Certified in Pediatrics and Behavioral & Developmental Medicine. April 13, 2012
  47. Advance Medical Review. Independent Specialist Review. Speech Pathologist Board Certified in Speech Pathology. April 16, 2012
- 2013 Update**
48. UpToDate: Sices L. Overview of expressive language delay (“late talking”) in young children. Rose, BD (Ed), UpToDate, Waltham, MA. July 2013.
  49. Advanced Medical Review (AMR): Policy reviewed by a board certified speech pathologist. August 15, 2013.