



CIGNA MEDICAL COVERAGE POLICY

This Coverage Policy should NOT be used for Great-West benefit plans.

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Coverage Policy Number0177

Subject **Speech/Language Therapy**

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INSTRUCTIONS FOR USE

Coverage Policies are intended to provide guidance in interpreting certain **standard** CIGNA HealthCare benefit plans as well as benefit plans formerly administered by Great-West Healthcare. Please note, the terms of a participant's particular benefit plan document [Group Service Agreement (GSA), Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a participant's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a participant's benefit plan document **always supercedes** the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable group benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. Proprietary information of CIGNA. Copyright ©2008 CIGNA

Coverage Policy

Under many benefit plans, coverage for outpatient speech therapy and speech therapy provided in the home is subject to the terms, conditions and limitations of the Short-Term Rehabilitative Therapy benefit as described in the applicable benefit plan's schedule of copayments.

Many benefit plans have exclusion language that impacts coverage of speech therapy, including any or all of the following:

- **A maximum allowable speech therapy benefit for duration of treatment or number of visits. When this is present and the maximum allowable benefit is exhausted, coverage will no longer be provided even if the medical necessity criteria described below are met.**
- **Specific coverage exclusions for rehabilitative services for learning disabilities, developmental delays, autism, mental retardation and/or for treatments which are not restorative in nature.**
- **Specific coverage exclusions for behavioral training/treatment or services that are considered educational and/or training in nature. In benefit plans where this exclusion is present, services that are considered training such as voice therapy for conditions such as vocal cord polyps, hoarseness, respiratory papillomas, or intracardial cysts would not be covered.**
- **Specific coverage exclusions for myofunctional therapy for dysfluency (e.g., stuttering, spastic dysphonia or other involuntarily acted conditions) or functional articulation disorders (e.g., tongue thrust, lisp, verbal apraxia)**
- **Specific coverage exclusions for maintenance or preventive care consisting of routine, long-term, or non-medically necessary care provided to prevent recurrences or to maintain the member's current status**

If coverage is available for speech therapy, the following conditions of coverage apply.

CIGNA covers speech pathology evaluation and therapy as medically necessary for a severe impairment of speech, as noted on age-appropriate standardized tests that measure the extent of impairment, performance deviation, language and pragmatic skills assessment levels when ALL of the following criteria are met:

- An evaluation has been completed by a certified speech-language pathologist and the treatment recommended has the support of the treating physician.
- The therapy being ordered requires the one-to-one intervention and supervision of a speech-language pathologist.
- The therapy plan includes specific tests and measures that will be used to document significant progress every two weeks.
- Meaningful improvement is expected from the therapy.
- The treatment includes a transition from one-to-one supervision to an individual or caregiver provided maintenance program upon discharge.

CIGNA does not cover any of the following speech therapy related programs, because they are training in nature and not medically necessary:

- any computer-based learning program for speech training purposes (e.g., Fast ForWord® or other programs)
- school speech programs or speech therapy already being provided in occupational therapy
- group speech therapy (because it is not one-on-one, individualized to the specific person's needs)
- maintenance programs of routine, repetitive drills/exercises that do not require the skills of a speech-language therapist and that can be reinforced by the individual or caregiver

General Background

Language impairment is the inability to comprehend and/or appropriately use language. The impairment may involve the form of language (i.e., phonology, morphology, and syntax), the content of language (i.e., semantics), the function of language in communication (i.e., pragmatics), or any combination of the above. The terms language or speech impairment do not include dialectal differences, auditory processing disorders or selective mutism. Language is the brain's use of symbols for communication. Language is the unique human ability to communicate through symbols, whether spoken or written language, Braille, musical notation, or most forms of sign language. Language is distinct from speech, which is the verbal expression of language.

Speech and language impairments can result from a variety of local, systemic and neurological conditions. Examples of local impairments are injury or localized disease of the vocal cords; tumors or growths that cause swallowing and speech difficulty; and congenital cleft lip or cleft palate. Neurological causes of speech and language problems include stroke and a variety of conditions, such as multiple sclerosis. Speech and language impairments include may include the following conditions (Kortte and Palmer, 2002):

- Aphasia: This disorder involves the expression of language, the comprehension of language, or both. It can be classified into specific syndromes according to the ability to produce, understand and repeat language. The ability to produce language is assessed in terms of fluency, which is defined as the rate of speech and amount of effort in producing speech. There are several syndromes of aphasia and each is associated with a particular set of language capabilities and disabilities. Global aphasia is when both expressive and receptive problems are present. These include:
 - Broca's: This syndrome is characterized with nonfluent speech, intact comprehension and poor repetition skills.
 - Wernicke's: This syndrome is characterized with fluent speech, poor comprehension and poor repetition skills.
 - Conduction: This syndrome is characterized by fluent speech, intact comprehension and poor repetition skills.
 - Transcortical motor: This syndrome is characterized with nonfluent speech, intact comprehension and intact repetition skills.
 - Transcortical sensory: This syndrome is characterized by fluent speech, poor comprehension and intact repetition skills.
 - Anomic: This syndrome is characterized fluent speech, and intact comprehension and repetition skills.
- Aphonia: This is the total loss of speech sounds
- Apraxia/dyspraxia: This is the inability or difficulty to form words or speak, despite the ability to use the oral and facial muscles to make sounds
- Dysarthria: With this impairment, there is an impairment or clumsiness in the uttering of words due to diseases that affect the oral, lingual or pharyngeal muscles; speech may be difficult to understand, but the ability to communicate is present.
- Dysphasia: impairment of speech resulting from a brain lesion, stroke or neurodevelopmental disorder
- Dysphonia: This is a term that includes faulty or abnormal phonation or voice production. This condition differs from dysarthria in that the former involves only sound of the voice and latter involves overall sound including resonance and articulation.
- Stuttering: disruption in the fluency of speech; affected persons repeat letters or syllables, pause or hesitate abnormally, or fragment words when attempting to speak.

Communication Disorders in Children

Language tends to develop in a predictable pattern in children. The acquisition of language and communication goes from preverbal to verbal skills and the comprehension of language precedes spoken words. Assessment of language should be an element of every well-child visit. There is no generally accepted classification of childhood communication disorders; however the American Psychiatric Association (APA) in the Diagnostic and Statistical Manual of Mental Disorders provides a basic classification system that recognizes the following four types of communication disorders (APA, 2000):

- Expressive language disorder—criteria for this condition include:
 - Scores obtained from standardized individually administered measures of expressive language development are substantially below those obtained from standardized measures of both nonverbal intellectual capacity and receptive language development. The disturbance may be manifest clinically by symptoms that include having a markedly limited vocabulary, making errors in tense, or having difficulty recalling words or producing sentences with developmentally appropriate length or complexity.
 - Difficulties with expressive language interfere with academic or occupational achievement or with social communication.
 - Criteria are not met for mixed receptive-expressive language disorder or a pervasive developmental disorder.

- If mental retardation is present, a speech-motor or sensory deficit, or environmental deprivation is present, the language difficulties are in excess of those usually associated with these problems.
- Mixed receptive language disorder—criteria for this condition include:
 - Scores obtained from a battery of standardized individually administered measures of both receptive and expressive language development are substantially below those obtained from standardized measures of nonverbal intellectual capacity. Symptoms include those for expressive language disorder as well as difficulty understanding words, sentences, or specific types of words, such as spatial term.
 - Difficulties significantly interfere with academic or occupational achievement or with social communication
 - Criteria are not met for a pervasive developmental disorder.
 - If mental retardation is present, a speech-motor or sensory deficit, or environmental deprivation is present, the language difficulties are in excess of those usually associated with these problems.
- Phonologic disorder (formerly referred to as developmental articulation disorder)—criteria for this condition include:
 - Failure to use developmentally expected speech sounds that are appropriate for age and dialect. This includes errors in sound production, use, representation, or organization such as, but not limited to, substitutions of one sound for another or omissions of sounds (e.g., final consonants).
 - The difficulties in speech sound production interfere with academic or occupational achievement or with social communication.
 - If mental retardation is present, a speech-motor or sensory deficit, or environmental deprivation is present, the language difficulties are in excess of those usually associated with these problems.
- Stuttering—criteria for this condition include:
 - Disturbance in the normal fluency and time patterning of speech that is inappropriate for the individuals' age and is characterized by frequent occurrences of one or more of the following:
 - sound and syllable repetitions
 - sound prolongations
 - interjections
 - broken words (e.g., pauses within a word)
 - audible or silent blocking (e.g., filled or unfilled pauses in speech)
 - circumlocutions (e.g., word substitutions to avoid problematic words)
 - words produced with an excess of physical tension
 - monosyllabic whole-word repetitions (e.g., "I-I-I-I see him")

Communication disorders are demonstrated by a significant discrepancy between language and nonverbal intellectual development; although no specific cutoff criteria are provided (Simms, 2007).

Within these classifications provider are likely to see children with a wide range of language and communication difficulties. Mixed receptive-expressive language disorder may also be referred to as specific language impairment or developmental dysphasia or developmental language disorder.

Pragmatic Language Disorder: This disorder goes beyond the basic understanding of words and grammar and involves the use of language in social settings. Children who have this disorder may have difficulty comprehending the social context of conversations. It may be considered in the context of specific language impairment but is also seen as a symptom as of other many other disorders, including: autism and pervasive developmental disorder, Asperger's syndrome, nonverbal learning disability and right-hemisphere brain damage. It is also recognized by some providers as a distinctive developmental language disorder (Simms, 2007).

Articulation Disorders/phonologic Disorders: In this condition speech problems that interfere with sound articulation are usually considered a phonologic impairment. It has been noted that approximately 7.5% of three- to eleven-year old children exhibit significant speech sound distortions. In most circumstances these children babble at the normal age, and produce a wide range of vowel and consonant sound. As they progress they typically omit, substitute, or reduce consonants and clusters of sounds. These children may be unintelligible (Simms, 2007).

Dysarthria/Motor Speech Disorder: These disorders involve damage to the central or peripheral neurological mechanism. They may be caused by neuromotor disorders, such as cerebral palsy, muscular dystrophy, myopathy, or facial palsy. The resulting dysarthria may affect both speech and nonspeech functions (e.g.,

smiling, chewing, swallowing). There may be a lack of strength and muscular control manifests as slurring of words and distorted vowels and consonants and slow labored speech (Simms, 2007).

Verbal Apraxia: This disorder is characterized by inconsistent distortion of speech sounds. It may be the result of difficulty in planning and coordinating movements for speech production. In this condition the same word may be pronounced differently each time. There may be struggling behaviors and searching for the capability to produce the word. The apraxia may be limited to oral motor function, or it may be a more generalized problem affecting fine and/or gross motor coordination (Simms and Schum, 2007).

Late Talker Syndrome: This condition may be referred to as maturational delay or late bloomer. Children with delayed expressive language development, with no evidence of motor speech disorder and whose receptive language abilities are normal may have a maturational expressive language delay. This may be considered to a normal variant of development. It is a diagnosis that is generally made by exclusion, when other causes are ruled out. It is thought to be more common in boys than girls and tends to run in families. After these children start talking they continue to do well and there appears to be little long-term risk of speech, language or learning impairment. Little scientific research has been conducted in this condition (Johnson, 2005).

Otitis Media (OM): Otitis media with effusion (OME) is the presence of fluid in the middle ear without signs or symptoms of acute ear infection. Persistent middle-ear fluid from OME may result in decreased mobility of the tympanic membrane and serve as a barrier to sound conduction. It is commonly diagnosed between six and 30 months old. There are approximately 2.2 million diagnosed episodes of OME that occur annually in the United States (American Academy of Family Physicians [AAFP], American Academy of Otolaryngology-Head and Neck Surgery [AAO-HNS] and American Academy of Pediatrics [AAP], 2004). Joint guidelines from the AAFP/AAO-HNS/AAP (2004) on otitis media with effusion note that hearing testing is recommended when OME persists for three months or longer or at any time that language delay, learning problems, or a significant hearing loss is suspected. The guidelines note that conductive hearing loss often accompanies OME and may adversely affect binaural processing, sound localization, and speech perception in noise. In addition it is noted that while hearing loss caused by OME may impair early language acquisition, the child's home environment has a greater impact on outcomes. Recent randomized trials suggest that there is no impact on children with OME who are not at risk as identified by screening or surveillance.

In regards to language testing, the AAFP/AAO-HNS/AAP (2004) guidelines recommend that language testing should be conducted for children with hearing loss (pure-tone average more than 20-dB HL on comprehensive audiometric evaluation). Young children with speech and language delays during the preschool years are at risk for continued communication problems and later delays in reading and writing. Interventions may be needed to improve communication and other functional outcomes for children with histories of OME. Parents or caregivers should be questioned about specific concerns regarding their child's language development. Children's speech and language can be tested at ages six to 36 months by direct engagement of a child and by interviewing the parent with the Early Language Milestone Scale. In addition the child's parent or caregiver can be interviewed with the MacArthur Communicative Development Inventory and the Language Development Survey. The Denver Developmental Screening Test II can be used to screen general development including speech and language in older children. Comprehensive speech and language evaluation is recommended for children who fail testing or whenever the child's parent or caregiver expresses concern (AAFP/AAO-HNS/AAP, 2004).

Speech Therapy

When there is an underlying medical condition and a speech disorder speech therapy may be utilized. Prior to the initiation of speech therapy, a comprehensive evaluation of the patient and his or her speech and language potential is generally required before a full treatment plan is formulated.

Speech therapy services should be individualized to the specific communication needs of the patients. It should be provided one-to-one by a speech-language pathologist educated in the assessment of speech and language development, the treatment of language and speech disorders, and the evaluation of people with swallowing disorders. A speech-language pathologist can offer specific strategies, exercises and activities to regain functional communication abilities (Kortte and Palmer, 2002).

Before speech therapy is initiated a complete evaluation by the speech-language pathologist should be performed. As part of the evaluation, standardized assessment tests should be used for evaluations to identify and quantify impairment (Kortte and Palmer, 2002): Tests include the following:

- Receptive-Expressive Emergent Language Scale (REEL): infants (birth to three years)
- Test of Language Development (TOLD): school-age children
- Porch Index of Communication Ability (PICA): adults
- Boston Diagnostic Aphasia Examination: adults
- Peabody Picture Vocabulary Test (PPVT): for all ages

For the child with speech delay, the speech/language evaluation may demonstrate that the potential exists that, through speech therapy, the child will reach an age-appropriate level of speech. Some situations for which speech therapy may be appropriate in the prelingual child include: following long-term intubation, chronic otitis media, or after cochlear implant or cleft palate surgery.

A hearing test may also be conducted to determine if the child is experiencing mild hearing loss as a result of transient or persistent ear infections or allergies. Should these conditions be identified, then medical management and monitoring should be used to minimize the effects that this could have on future language learning. Comorbid psychiatric disorders, environmental deprivation, pervasive developmental disorders, mental retardation, autism and selective mutism should all be considered in cases of language delay (Johnson, 2005).

Speech therapy is generally not appropriate for use in prelingual children when there is no identified underlying medical condition or there is no possibility of the child reaching an age-appropriate level of speech (e.g., autism, pervasive developmental disorders developmental delay or mental retardation; the inability to construct sentences, stuttering or tongue thrust) (Johnson, 2005; Bressmann, 2005; Kroll, 2005).

Documentation of the proposed treatment should include all of the following:

- findings of the speech evaluation, including motor and expressive results
- short- and long-term measurable goals, with expectations for progress
- specific treatment techniques and/or exercises to be used during this treatment
- determination of how the goals will be measured and reported every two weeks
- expected duration of therapy for goals to be met
- documented strategy to transition this supervised therapy to a patient-administered or caregiver-directed maintenance program

Before continuing speech/language services, the results of these patient-specific measures should demonstrate that the individual is consistently improving and that a plateau (i.e., where no additional meaningful improvements are being measured or are expected to occur) has not been reached. Once the individual has reached their goals or a therapeutic plateau has been reached, then ongoing therapy becomes maintenance in nature.

The use of group therapy is not one-on-one, individualized to the specific patient needs. Services that are provided by speech therapists and occupational therapists may overlap (Michaud, et al., 2004). Speech therapy that is being provided as part of an occupational training program is considered duplicative in nature.

Voice Disorders

Voice disorders may also be referred to as vocal disorders. A voice disorder can result in a voice that is unpleasant and can impede effective communication. The ability to produce speech is present; it is the voice quality, pitch, resonance or duration that is affected. The cause may be organic or functional. Organic voice disorder may be caused by congenital or acquired anatomic abnormalities. Functional disorders may be caused by emotional or psychological problems but this may lead to anatomic alterations. In addition, there may be a psychological component when a voice disorder results primarily from an organic cause. Voice disorders are generally classified depending on the area of problem; however there often are several problem areas. These include problems with voice quality, resonance, loudness and pitch (Choi and Zalzal; 2005). The estimated prevalence of voice disorders in children ranges from 6–23%. In adults, the prevalence of voice disorders has been estimated to be between 3–10%. Most voice disorders are benign in nature (e.g., vocal nodules, polyps, edemas).

The most common factor that leads to vocal pathologies is vocal misuse or abuse. This includes excessive yelling, singing, talking or abusive behaviors, such as excessive throat clearing or aggressive vocal play. Vocal disorders that are due to vocal misuse and abuse are often labeled as hyperfunctional voice disorders. These actions can lead to lesions in the vocal ligament which include acute inflammatory vocal nodules, acute vocal fold polyps or acute vocal hemorrhage. If they are the result of a single event (e.g., spectator sports event) that they are usually reversible by vocal rest and vocal hygiene. If they are of a longer-standing nature of vocal abuse than more comprehensive behavioral and possibly surgical intervention may be needed (Bressmann, 2005).

Vocal cord lesions are small, benign growths on the vocal cords may be caused by vocal misuse or overuse and from trauma or injury to the vocal cords. The most common vocal cord lesion is vocal nodules or nodes. They are also referred to as singer's nodes since it is a frequent problem among professional singers. They usually occur in pairs, one on each vocal fold. The treatment is usually voice rest and voice therapy. The objective is to improve the speaking technique and remove the trauma on the vocal cords. Vocal cord polyps are also a common vocal cord lesion that is due to similar causes. They are a benign growth that is softer, most often forms on only one vocal cord (National Institute on Deafness and Other Communication Disorders [NIDCD], 2008).

These conditions are usually reversible. It is best to eliminate the vocal behavior that created the voice disorder. A brief period of voice therapy may be indicated to instruct the individual in good vocal techniques such as proper breath support for speech or eliminating forceful voicing. Therapeutic interventions may include education in how the voice works and good vocal hygiene, physiologic vocal exercises to improve the quality and strength of the voice, and compensatory techniques to optimize vocal function (Ashley, et al., 2006). They may require surgical removal if voice therapy has failed. Since these conditions easily recur following surgery if the vocal misuse continues and other period of voice therapy by a speech-language pathologist after surgery may be indicated (NIDCD, 2008).

Gastroesophageal Reflux Disease (GERD) and Laryngopharyngeal Reflux Disease

Reflux of gastric contents into the throat can cause a variety of symptoms in the esophagus as well as throat. Hoarseness, swallowing problems, a foreign body sensation, or throat pain are common symptoms of gastric acid irritation of the throat. Management of these conditions usually includes medication such as proton pump inhibitors (Jackler and Kaplan, 2005).

Literature Review

Cirrin and Gillam (2008) conducted a systematic review of articles that assess the outcomes of language intervention practices for school age students with spoken language disorders. The review included randomized clinical trials, nonrandomized comparison studies, and multiple-baseline single-subject design studies. There were 21 studies included in the review. Eleven of the studies limited participants to children in kindergarten and first grade and there were no studies that focused on students in middle grades or high school. The review noted that there is little research evidenced to guide evidenced-based decisions about treatment options.

Greener et al. (2005) reported the results of a Cochrane meta-analysis that was conducted to assess the effects of formal speech and language therapy and nonprofessional types of support from untrained providers for people with aphasia after stroke. After analyzing 60 studies, only 12 met the criteria for review. It was noted that most studies were old with poor or unassessable methodological quality. After reviewing the studies that were available, the authors concluded that speech and language therapy treatment for people with aphasia after a stroke has not been shown either to be clearly effective or clearly ineffective within a randomized controlled trial. Treatment should be based on management of patients should be based on other forms of evidence. Additional research is needed to determine the effectiveness of speech therapy in this population.

Glogowska et al. (2005) conducted a randomized, controlled trial of community based speech and language therapy in preschool children. The study took place in 16 community clinics. One hundred fifty-nine preschool children with appreciable speech or language difficulties were included. They were randomized to the therapy or watchful waiting. There were four quantitative measures of speech and language that were assessed at six and 12 months. The results demonstrated improvement in auditory comprehension that was significant in favor of therapy (adjusted difference in means 4.1, 95% confidence interval [CI] 0.5–7.6; $p=0.025$). There was no significant difference observed for expressive language (1.4, -2.1–4.8; $p=0.44$); phonology error rate (-4.4, -12.0–3.3; $p=0.26$); language development (0.1, -0.4–0.6; $p=0.73$); or improvement on entry criterion (odds ratio

1.3, 0.67–2.4; $p=0.46$). At the end of the trial, there were substantial speech and language deficits noted in 70% of the children. The study did not demonstrate the effectiveness of speech and language therapy as compared with watchful waiting over a 12 month period. The authors noted that providers of speech and language therapy should reconsider the appropriateness, timing, nature and intensity of such therapy in preschool children and continued research is needed to identify better treatment methods.

Pennington et al., (2004) conducted a Cochrane systematic review to determine the effectiveness of speech language therapy for children with cerebral palsy. Eleven studies were included in the review. Seven studies evaluated treatment rendered to children, four investigated the effects of training for communications partners. There was a wide variation in age, type and severity of cerebral palsy, cognitive and linguistic skills. The studies that focused directly on children indicated that this model of therapy delivery has been associated with increases in treated communication skills by individual children. There were methodological flaws that prevented firm conclusions from being made about the effectiveness of therapy. The maintenance of skill was not investigated thoroughly. The authors noted that further research is needed to investigate the effectiveness of new and established interventions and their acceptability to families.

In 2004, Law et al. reported on a meta-analysis conducted to determine the effectiveness of speech and language interventions for children with primary speech and language delay/disorder. From the 25 studies reviewed, the authors concluded the results suggest 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 the therapy outcomes.

Paradise et al. (2003) reported on a long-term prospective study of 397 children with persistent MEE who were treated with surgical tympanostomy, and 241 children with no MEE or intermittent MEE who were monitored frequently for the development or recurrence of MEE. This study focused on the impact of MEE on a child's cognitive, language, speech, or psychosocial development. During this study, results showed hearing thresholds were highest (i.e., indicated poorest hearing) in the youngest children and lowest in the oldest children. Mean voice recognition assessment (VRA) thresholds were significantly higher in the 6–8 month age group than in older children. On average, the presence of bilateral MEE was associated with 10–15 dB worse hearing than the normative values for the corresponding age group. These findings underscore the importance of taking into account not only the child's middle-ear status, but also the testing technique employed, patient age, and the clinical significance of the hearing test results.

Deane et al. (2001) conducted a Cochrane systematic review, to compare the efficacy of speech and language therapy versus placebo or no interventions in patients with Parkinson's disease. The study identified two trials with 71 patients. The method of randomization was good in one of the trials and the concealment of allocation was inadequate in both trials. These methodological problems could likely lead to bias from a number of sources. Meta-analysis was not possible due to variation in methods. The authors noted that with the methodological flaws noted in the studies, the small number of patients examined, and the possibility of publication bias, that there is insufficient evidence to support or refute the efficacy of any given form of speech and language therapy over another to treat dysarthria in Parkinson's disease.

Deane et al. (2001) conducted a Cochrane review to compare the efficacy of speech and language therapy versus placebo or no interventions in patients with Parkinson's disease. There were three randomized controlled trials identified with a total of 63 patients that compared speech and language therapy with placebo for speech disorders in Parkinson's disease. The authors concluded that there was insufficient evidence to support or refute the efficacy of speech and language therapy for dysarthria. The population that had been studied was small; outcome measures need to be determined relevant to the patient, and patients should be followed for a minimum of six months after therapy to determine the long-term impact of the therapy.

Speech software or computer-based programs

Fast ForWord[®] (Scientific Learning Corporation, Oakland, CA) products have been developed to improve reading and language skills. The use of speech software or computer-based programs, such as Fast ForWord, repetitive training devices/exercises or school-based programs are considered training in nature and are not

considered medically appropriate, as they do not involve the formal interaction of one-to-one supervision with a speech-language pathologist.

Bothe et al. (2008) conducted a randomized controlled trial to compare the language and auditory processing outcomes of children assigned to Fast ForWord-Language (FFW-L) to the outcomes of children assigned to nonspecific or specific language intervention comparison treatments that did not contain modified speech. Two hundred and sixteen children between the ages of 6 and 9 years with language impairments were randomly assigned to one of four arms: FFW-L, academic enrichment (AE), computer-assisted language intervention (CALI), or individualized language intervention (ILI) provided by a speech-language pathologist. One hour and 40 minutes of therapy was provided to all children, five days per week, for six weeks. Language and auditory processing measures were administered to the children by blinded examiners before treatment, immediately after treatment, three months after treatment, and six months after treatment. The children in all four arms improved significantly on a global language test and a test of backward masking. The children with poor backward masking scores who were randomized to the FFW-L arm did not present greater improvement on the language measures than children with poor backward masking scores who were randomized to the other three arms. Participants in the FFW-L and CALI arms earned higher phonological awareness scores than children in the ILI and AE arms at the six-month follow-up testing. The FFW-L program, the language intervention that provided modified speech to address a hypothesized underlying auditory processing deficit, was not more effective at improving general language skills or temporal processing skills than a nonspecific comparison treatment (AE) or specific language intervention comparison treatments (CALI and ILI) that did not contain modified speech stimuli. These findings question the temporal processing hypothesis of language impairment and the proposed benefits of using acoustically modified speech to improve language skills. In view of the finding that children in the three treatment arms and the active comparison arm made clinically relevant gains on measures of language and temporal auditory processing appears to indicate that a variety of intervention activities can facilitate development.

Summary

Speech therapy services may be appropriate for individuals with a speech impairment that is due to a disease, trauma, an underlying structural malformation or previous therapeutic process. There should be clear documentation of this process, and the goal(s) of therapy should include measures that will be used to demonstrate that a meaningful improvement has occurred as a result of the therapy.

Determination of the medical necessity for speech therapy for an adult or child should be based on the individual's medical condition and the severity of the functional impairment; age-specific functional impairment scores should be used, and the evaluation should be conducted by a certified speech-language pathologist. The therapy plan should include measurable goals, testing applications that will be used to measure improvement, and specific timeframes to begin an early transition from one-to-one supervision by a professional to a patient- or caregiver-provided level.

Voice therapy is not considered speech therapy; by definition, voice therapy is the modification of an individual's behavior aimed at minimizing or correcting maladaptive and inappropriate vocal behaviors.

Coding/Billing Information

Note: This list of codes may not be all-inclusive.

Covered when medically necessary:

CPT [®] * Codes	Description
92506	Evaluation of speech, language, voice, communication, and/or auditory processing
92507	Treatment of speech, language, voice, communication, and/or auditory processing disorder; individual

HCPCS	Description
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Codes	
G0153	Services of speech and language pathologist in home health setting, each 15 minutes
S9128	Speech therapy, in the home, per diem
S9152	Speech Therapy, re-evaluation

ICD-9-CM Diagnosis Codes	Description
	Multiple/Varied

Experimental/Investigational/Unproven/Not Covered:

CPT* Codes	Description
92508	Treatment of speech, language, voice, communication, and/or auditory processing disorder; group, 2 or more individuals

HCPCS Codes	Description
	No specific codes

ICD-9-CM Diagnosis Codes	Description
307.0	Stammering and stuttering
476.0-476.1	Chronic laryngitis and laryngotracheitis
478.4	Polyp of vocal cord or larynx
530.11	Reflux esophagitis
530.12	Acute esophagitis
530.81	Esophageal reflux
750.0	Tongue tie
784.69	Other symbolic dysfunction, apraxia
	Multiple/Varied

***Current Procedural Terminology (CPT®) ©2007 American Medical Association: Chicago, IL.**

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