



CLINICAL GUIDELINES

Speech Language Pathology Services

Version 1.0

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SLP-1.1: Definitions

SLP-1.1.1: Care Classifications

Habilitation

- Health care services that help an individual to keep, learn, or improve skills and functioning for daily living. Examples include therapy for a child who is not walking or talking at the expected age. These services may include physical and occupational therapy, speech-language pathology, and other services for people with disabilities in a variety of inpatient and/or outpatient settings. (National Association of Insurance Commissioners (NAIC). Most states have their own definition, but they have adopted some version of the NAIC definition.¹

Rehabilitative Therapy

- Rehabilitative therapy is care provided to relieve the functional loss associated with an injury or condition and is necessary to return the individual to the functioning level required to perform their activities of daily living, instrumental activities of daily living and work activities. Therapeutic care generally occurs within a reasonable period of time and is guided by evidence based practice of speech language pathology (SLP) services.²

Skilled Maintenance Care ^{3,4}

- Maintenance care is defined as services required to maintain the individual's current condition or to prevent or slow deterioration of the individual's condition.

Palliative Care

- Palliative care is typically performed to alleviate symptoms and does not provide corrective benefit to the condition. An individual receiving palliative care, in most instances, demonstrates varying lapses between treatments. This type of care is not medically necessary as the treatment does not require the skills of a therapist.

Preventive Care

- Preventive care includes management of the asymptomatic individual. This type of care is not medically necessary as the treatment does not require the skills of a therapist.

SLP-1.1.2: Supplementary Definitions

Condition Severity Grading^{5,6}

- Conditions can be classified as mild, moderate or severe.
 - ◆ **Mild conditions:** assessment indicates delay that minimally interferes with communication and may impact acquisition or result in a loss of educational, social, and vocational skills. Mild (-1 to -1.5 standard deviation from the mean [or a score of 84 to 78]).
 - ◆ **Moderate conditions:** assessment indicates delay that interferes with communication and usually impacts acquisition or result in a loss of educational, social, and vocational skills. Moderate (-1.5 to -2 standard deviation from the mean [or a score of 77 to 70]).
 - ◆ **Severe conditions:** assessment indicates limited functional communication that always interferes with acquisition or result in a loss of educational, social, and vocational skills. Severe (>2 standard deviation from the mean [or a score of 69 or below]).

Duplicate Therapy Services

- Services provided under two different disciplines' treatment plans or by two providers of the same discipline for the same body part or diagnosis are considered duplicate care.

Generally Accepted Standards of Practice

- Generally Accepted Standards of Practice are widely accepted clinical concepts and practices based on credible scientific evidence published in the peer-reviewed literature and/or evidence-based guidelines generally recognized by the relevant healthcare community.

Hearing Screenings

- **Hearing Screening** is the systematic application of a test or examination completed to identify individuals who are at risk for a hearing disorder or impairment and may benefit from further assessment, direct preventative action and/or appropriate intervention.^{19, 20}

Skilled Therapy versus Non-Skilled Therapy

- **Skilled therapy:** The individual's special medical complications require the skills of a therapist to perform a therapy service or the needed therapy services are of such complexity that the skills of a therapist are required to perform the procedure.
- **Non-skilled therapy:** Palliative procedures that are repetitive or that reinforce previously learned skills, treatment that do not involve complex and sophisticated therapy procedures, or require the judgment and skill of a qualified therapist for safety and effectiveness.
- Non-skilled care is not indicated because this type of care does not involve complex and sophisticated therapy procedures, or require the judgment and skill of a qualified therapist for safety and effectiveness. The unavailability of a competent person to provide a non-skilled service, regardless of the importance of the service to the individual, does not make it a skilled service when a therapist furnishes the service.²¹

Timing of Care

- **Critical Period:** a defined time frame when biologic and/or physiological conditions make the individual especially sensitive to certain environmental stimuli; therefore promoting development of new or recently lost skill(s). Current evidence supports that the period from birth to toddler years are a critical period for neuroplasticity and overall development.^{7,8,9,10,11} Optimal timing for performance and/or cooperative interventions for development of cognitive, social, emotional, visual, perceptual and motor skills occur during childhood.^{7,12}
 - ◆ Research suggests that the critical for natural language acquisition is up to 6 years.¹³
 - ◆ The preponderance of spontaneous recovery after neurological insult occurs by 3 months but is possible up through 6 months.¹⁴
 - ◆ The innate ability to acquire language declines gradually at puberty, generally by 13 years of age.¹⁵
 - ◆ Research suggests that from the age of 2 years and up until age 16, unused synapses that are not routinely activated are gradually thinned and removed as the inactive cells die. After this critical period, the innate ability to learn and develop will be reduced, and in some instances may be completely eliminated.¹³
- **Episodic based care:** refers to a specific period of intervention targeting an individual's specific need with definite beginning and end dates. Individuals with chronic conditions, such as cerebral palsy (CP) or muscular dystrophy, may require multiple episodes of care throughout their lifespan.^{16,17}
 - ◆ Each episode should have a meaningful outcome.¹⁸ Goals must be set to accomplish realistic and functional goals established by the parent and/or child and are anticipated to be met within the established timeframe.
 - ◆ An episodic care ends when the child is in a steady state and needs only practice and repetition.¹⁶
 - ◆ Parents of children with chronic conditions may prefer breaks between episodes of therapy to allow for a rest period and to participate in other community activities as opposed to receiving therapy for an indefinite length of time.¹⁷

SLP-1.2: Indications for Treatment ^{22, 23,24,25,26}

Speech Language Pathology Services will be considered medically necessary when current information is submitted to demonstrate that ALL of the following criteria have been met:

- Speech Language Pathology services are required to address a functional deficit in the individual's daily activities resulting from a physical impairment due to illness, disease, injury, or congenital disorder.
- The skills of a therapist are required for the treatment of the functional deficit and/or underlying impairment.
- The services shall be considered under generally accepted standards of practice to be a specific and effective treatment for the individual's condition.

- The services shall be of such a level of complexity and sophistication or the condition of the individual shall be such that the services required can be safely and effectively performed only by a therapist, or in the case of speech language pathology services by or under the supervision of a therapist. Services performed by or under the supervision of a qualified therapist do not, alone, support skilled therapy services without the treatment or condition meeting the required complexity level for skilled care as defined in **SLP-1.1.1: Care Classifications**.
- There must be an expectation that the individual's condition will improve significantly in a reasonable (and generally predictable) period of time.
- Hearing screenings are required for children or adults during the initial speech and language evaluation unless results of a comprehensive audiologic assessment completed within a year of the initial speech language evaluation have been received by the provider.^{19,20}
- The amount, frequency, and duration of the services must be reasonable under generally accepted standards of practice. Criteria to establish treatment frequency and duration are based on the following^{27,28}
 - ◆ Severity of objective clinical findings
 - ◆ Presence of and number of complicating factors and comorbidities
 - ◆ Natural history and chronicity of condition
 - ◆ Response to treatment provided
 - ◆ Individual's level of independence

Indications for Skilled Maintenance Care

In addition to the criteria above, skilled maintenance care is indicated for ANY of the following:

- To establish or design a maintenance program appropriate to the capacity and tolerance of the individual
- To instruct the individual or caregiver regarding the maintenance program.
- For periodic re-evaluations of the maintenance program
- For delivery of maintenance programs:
 - ◆ Skilled therapy service is indicated when a customized assessment of the individual's clinical condition demonstrates that the skills of a qualified therapist are necessary for the performance of a safe and effective service.
 - ◆ The deciding factors are always whether the services are considered reasonable, effective treatments for the individual's condition and require the skills of a therapist, or whether they can be safely and effectively carried out by non-skilled personnel or caregivers.

Additional Indications for Continuation of Treatment

In addition to the requirements listed above, requests for Continuation of Treatment (after the initial request) must include current information that demonstrates ANY of the following criteria have been met:

- Submitted information shows objective measures of function illustrating an individual's functional response to treatment

- Submitted information shows the individual's baseline function and current level of function and that these relate to the treatment goals. Objective findings must demonstrate the individual is making functional progress.
- Submitted information supports that the skills of a therapist are required because the individual/Caregiver is unable to manage the condition independently
- Submitted information supports additional care is needed to instruct Individual/Caregiver in a home exercise program to best manage the individual's condition
- Submitted information supports the presence of a new injury/disease or exacerbation of current condition caused by a significant re-injury that has not been previously addressed
- Skilled care is required in order to prevent/slow deterioration for an individual to reach maximum practicable level of function
- Follow up hearing screening and referral to an audiologist, is highly recommended when progress has not been achieved or is minimal and evidence suggests risk for hearing impairment affecting body structure/function, activities, or participation.^{19,20}

SLP-1.3: Non-Indications^{22, 23, 24, 25}

- The individual, alone or with help from a caregiver, can continue management of symptoms with an independent home program.
- The individual, alone or with help from a caregiver, can continue to make functional progress with an independent home program.
- The individual's communication and/or swallowing skills are commensurate to those of others of the same chronological age, gender, ethnicity, or cultural and linguistic background.
- The individual's communication skills do not impair participation in health, safety and independence status.
- Language, speech, cognitive and/or swallowing function is determined to be within normal limits or is consistent with the individual's baseline.
- Nutrition and hydration needs are optimally met by alternative methods such as a percutaneous endoscopic gastrostomy (PEG tube).
- Treatment goals and objectives have been met.
- Therapy services have become routine or repetitive in nature, indicating they are not of a skilled nature.
- No objective clinical improvement is shown for the condition being treated with respect to function or complexity in a reasonable and generally predictable period of time
- A skilled therapy service is proven to be ineffective and is unable to maintain or prevent deterioration in function.
- The individual has been non-compliant with the treatment plan.

- The individual exhibits behavior that interferes with improvement or participation in treatment and efforts to address these factors have not been successful.
- The individual is unable to tolerate treatment because of a serious medical, psychological or other condition.
- Visits for the same or similar condition is not medically necessary, as the individual's condition can improve with care provided under one treatment plan and by one provider.

SLP-1.4: Benefits, Coverage Policies, and Eligibility

Benefits, coverage policies, and eligibility issues pertaining to each health plan and/or jurisdiction may take precedence over eviCore's medical necessity criteria. The final determination of reimbursement for SLP services is the decision of the health plan and is based on the individual's policy or benefit entitlement structure as well as claims processing rules. Providers should reference health plan policies for covered and non-covered SLP services.

Applicable Federal and State Mandates

- The Federal Government and many state insurance mandates require health insurance companies to pay for medically necessary and evidence-based treatments for certain population groups or conditions. eviCore takes into consideration these applicable federal and state mandates when authorizing care.
 - ◆ **Early and Periodic Screening Diagnostic and Treatment (EPSDT) Mandate**²⁹: The goal of this benefit is to ensure that children under the age of 21 who are enrolled in Medicaid receive age-appropriate screening, preventive services, and treatment services that are medically necessary to correct or ameliorate any identified conditions – the right care to the right child at the right time in the right setting.
 - EPSDT: <https://www.medicaid.gov/medicaid/benefits/epsdt/index.html>
 - ◆ **Autism Mandate**³⁰: A number of states require health insurance coverage for Autism Spectrum Disorder. These state mandates require certain insurers to provide coverage for either the diagnosis or treatment of the disorder.
 - American Speech Language and Hearing Association (ASHA) Autism Mandates: <https://www.asha.org/Advocacy/state/State-Insurance-Mandates-Autism>

Medicare Coverage Policies

- For Medicare programs, the coverage policies of Centers for Medicare and Medicaid Services (CMS) take precedence over eviCore's medical necessity criteria. In the absence of an applicable Local Coverage Determination or Local Coverage Article, eviCore policies will apply for the determination of medical necessity for SLP services for Medicare programs.

SLP-1.5: Administrative Rules

SLP-1.5.1: Time Frame for Submission

The following submission time frames generally apply for health plans that require authorization:

- **Initial Concurrent Requests:** While time frames may change based on jurisdiction and/or health plan rules, initial requests are typically submitted within seven (7) calendar days of the requested date of service.
- **Concurrent Continuation of Care Requests:** While time frames may vary based on jurisdiction and/or health plan rules, any subsequent concurrent request must generally be submitted within seven (7) calendar days of the requested date of service.
- **Retrospective Requests:** While this type of review is dependent upon jurisdiction and/or health plan rules, dates of service greater than seven (7) calendar days in the past are generally considered a retrospective review.

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SLP-2.0: Augmentative and Alternative Communication

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SLP-2.1: Additional Criteria to Establish Medical Necessity

In addition to the criteria established in **SLP-1.2: Indications for Treatment** and **SLP-1.3: Non Indications**, the following considerations may also be applicable to help establish medical necessity.

- A description of the individual's current level of functioning or impairment.
- Most recent standardized evaluation scores, percent of functional delay, or standard deviation (SD) score, when appropriate, for the individual's diagnosis/disability.

SLP-2.2: Clinical Considerations

The intent of this section is not to cover every complexity that a condition or individual may present, but to inform on how common complexities may be considered as part of a review. The effect of a complexity must be considered on a case-by-case basis. It is the responsibility of the provider to clearly document any complexities to be considered.

- Individuals who are candidates for utilization of AAC present with speech, language, or motor impairment(s) that prevent functional independent communication. A speech and language diagnosis will accompany the utilization of AAC. Common disorders associated with limited communication ability include apraxia of speech (pediatric and adult), aphasia, progressive disorders and pediatric spoken language disorders.
- Evidence supports the fact that carefully selected AAC including SGDs are a reasonable, necessary, and effective treatment for individuals with significant communication deficits. AAC/SGDs can support oral language development in young children with developmental delays. AAC can enable people with chronic delays to become more independent in the community, communicate functional needs more specifically, participate more fully in social exchanges, tell stories, and make telephone calls. AAC can enable people to return to work, and can allow for continued quality of life for those with neurodegenerative disease.
- Consider the following domains when measuring meaningful outcomes following AAC implementation:
 - ◆ Achieving goals supported or requested by the person using the AAC, their family, and people with whom they interact
 - ◆ Positive changes to participation in activities
 - ◆ Increases in communicative competence
 - ◆ Improvements in other areas of communication skills and abilities (like speech, language, literacy, fluency, voice, and pragmatics) which are targeted goals within the AAC intervention.

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SLP-3.0: Aural Rehabilitation

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SLP-3.1: Additional Criteria to Establish Medical Necessity

In addition to the criteria established in **SLP-1.2: Indications for Treatment** and **SLP-1.3: Non Indications**, the following considerations may also be applicable to help establish medical necessity.

Pediatrics:

- Formal diagnosis of hearing loss confirmed by an audiologist.
- Standardized assessments administered at least annually that support more than one (1) standard deviation below the mean in a composite area.

Adults:

- Formal diagnosis of hearing loss confirmed by an audiologist.
- A description of the individual's current level of functioning or impairment.
- Most recent standardized evaluation scores, percent of functional delay, or standard deviation (SD) score, when appropriate, for the individual's diagnosis/disability.

SLP-3.2: Clinical Considerations

The intent of this section is not to cover every complexity that a condition or individual may present, but to inform on how common complexities may be considered as part of a review. The effect of a complexity must be considered on a case-by-case basis. It is the responsibility of the provider to clearly document any complexities to be considered.

Early Intervention:

- The American Academy of Pediatrics recommends beginning the process for early intervention at birth for children diagnosed with hearing loss. The following goals were developed by the American Academy of Pediatrics to support access to early intervention for this population.¹
- American Academy of Pediatrics (AAP) Early Hearing Detection and Intervention (EHDI) Goals:
 - ◆ Ensure every child with hearing loss is diagnosed and receives appropriate, timely intervention.
 - ◆ Enhance pediatricians', other physicians', and non-physician clinicians' knowledge about the EHDI 1-3-6 guidelines—screening by 1 month of age, diagnosis of hearing loss by 3 months of age, and entry into early intervention (EI) services by 6 months of age.
 - ◆ “Ensure newborn hearing screening results are communicated to all parents and reported in a timely fashion according to state laws, regulations, and guidelines. Incorporate EHDI into an integrated, medical home approach to child health.”¹
 - ◆ Children with hearing loss have the potential to maintain development with same age peers if appropriate amplification and intervention services are pursued. A selection of devices such as Bone anchored hearing aids (BAHA), Cochlear Implants (CI), and hearing aids are utilized for amplification. The earlier appropriate amplification is fit and monitored, the better the prognosis for speech and language development in infants and toddlers. Children with hearing loss may not reach full maturity in speech sound development without early

intervention with appropriate amplification. Infants and young children with a pre-linguistic onset of hearing loss can exhibit noticeable delays in their entire speech production system.

- ◆ Speech and language intervention along with appropriate amplification is critical to communication development. Actively involving a child's caregivers in early intervention can lead to better outcomes for treatment. An interdisciplinary approach ensures that both components for successful outcomes are present. Amplification must be monitored at intervals to verify that the individual is receiving adequate input from his or her device. Speech and language intervention is needed to focus on auditory skills to support the individual's ability to understand and interpret the sound being received. The elimination of either of these factors can lead to significant delays in development and the lack of appropriate use of the technology available.
- ◆ The auditory stages of development include a hierarchy of four levels of auditory skill. Some auditory development will develop naturally, particularly with early, high quality, monitored amplification. However, skilled therapy is critical to address those skills that need direct instruction in both early invention and school age children.

School Age:

- As children progress into school age years, the expectations for language utilization in both academic and social settings increases. Children who have not received the benefits of both early intervention and appropriate amplification often need speech and language services at an increased intensity as they attempt to play "catch up" with their peers. Children who have received these services however, can be on level with peers and need less frequent or possibly maintenance level support. Ongoing collaboration with teachers, caregivers, and community members (coaches, counselors, and organization leaders) to support effective communication is needed consistently throughout the school years. Services to support success in social and academic settings is often needed throughout the school age years.

Adolescent and Adult:

- An increase in the incidence of acquired hearing loss versus congenital hearing loss occurs in this age group. Speech therapy services include support and maintenance care for individuals who were born hearing impaired, and then those who have experienced acquired hearing loss due to a medical issues, trauma, or abusive behaviors such as drugs or excessive loud noise. Noise Induced Hearing Loss is the leading cause of acquired hearing loss in the adolescent/young adult population. Personal listening devices used without monitoring decibel levels have resulted in an increase in hearing loss.
- Hearing loss in the adult population is primarily due to aging, but trauma and other medical conditions are factors as well. A skilled audiologist is able to provide appropriate amplification to support activities of daily living. Speech therapy for this population is primarily maintenance to support the utilization of new amplification. Aural rehabilitation is typically not a primary cause of concern, as a consistent foundation of auditory skill has already been established.

- Providing family members, caregivers, employers, co-workers, and other communication partners training in communication techniques and strategies to facilitate effective communication with the hearing impaired individual is critical part of the speech therapist role. Counseling and support may be needed as individuals adjust to the knowledge of their hearing loss and the impact on activities of daily living. Services should focus on a program designed to treat the specific areas of weakness with focus on improving functional communication so that the individual may participate in a variety of communication situations within his or her community or employment.

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SLP-4.0: Autism Spectrum Disorder

SLP-4.1: Additional Criteria to Establish Medical Necessity	21
SLP-4.2: Clinical Considerations	21

SLP-4.1: Additional Criteria to Establish Medical Necessity

In addition to the criteria established in **SLP-1.2: Indications for Treatment** and **SLP-1.3: Non Indications**, the following considerations may also be applicable to help establish medical necessity.

- Standardized assessments administered at least annually that support more than one (1) standard deviation below the mean in a composite area.
 - ◆ Objective findings, including informal assessments, are also accepted if standardized testing is not able to be completed.

SLP-4.2: Clinical Considerations

The intent of this section is not to cover every complexity that a condition or individual may present, but to inform on how common complexities may be considered as part of a review. The effect of a complexity must be considered on a case-by-case basis. It is the responsibility of the provider to clearly document any complexities to be considered.

- Comprehensive developmental early intervention programs have been shown to improve cognition, adaptive behavior, communication, and symptoms associated with autism. Frequency and intensity for the programs range from 13 to 25 hours per week.^{1, 2} These studies support early detection and early intervention services for autism diagnosis.
- Mohammadzaheri et al.³ reported a treatment frequency duration of 2 times a week for 12 weeks using Pivotal Response Treatment (PRT) and Applied Behavior Analysis (ABA). Treatment in a naturalistic setting (PRT) was reported to show a higher increase in Mean Length of Utterance (MLU) than structured ABA therapy. Significant gains were reported with a treatment frequency of twice a week for 12 weeks for children with ASD.
- A pilot study⁴ regarding the TEACCH program supported that significant gains were made in social skills with a treatment frequency of 20 sessions over a six month duration. Children with higher functioning autism were documented to have increased developed social skills by the end of the study.
- Individuals who are functionally stable, and have an adequate means of communication are candidates for periodic or intermittent therapy services. This clinical presentation is often observed in older children who have reached a functional level of communication appropriate for their developmental level.⁵
- Symptoms will range in number, intensity, level of severity, and overall functional effect on an individual's communication.

Early Intervention:

- Early intervention (EI) programs are provided to children between the ages of 0 and 5 years, with or at risk for developmental disabilities. The direct involvement of parents, professionals, and peers is an important element to an effective early intervention program.

- Plauché Johnson described the initial indicators of child at risk for ASD. “For children who have autism (with or without coexisting global developmental delays), the development of social skills and language is more delayed and characteristically ‘out of sync’ with motor, adaptive and cognitive functioning. The discrepancy between the development of social skills and general development is one of the most important defining criteria.”
- Delays in the areas of joint attention is reported to be the most significant indicator of early ASD. Parents often are able to identify that the infant’s interpersonal relationship development is not progressing as expected. Other red flags include delays in the areas of social orienting, verbal communication including responding to name, pretend play, pre-linguistic skills, absent or delayed speech and language regression.⁶
- Early identification of these red flags can allow parents and caregivers to access necessary early intervention services at the earliest appropriate time. Early intervention services are correlated with improvement in long-term communication function.^{7, 8} Early intervention services are supported as an important component for treatment of children with ASD.
- One of the key factors in the successful implementation of an early intervention program is parental support. Parent implemented intervention has been shown to be effective in increasing communication skills in children with developmental delays including ASD.^{9,10,11} Parents and caregivers can be successful in implementing intervention in a natural home environment.

Child and Pre-teen:

- The social challenges presented by the diagnosis of ASD can cause significant difficulties for school age and pre-teen children. Routine daily activities in the areas of academics, extra-curricular activities, and peer relationships can be challenging. Intervention shifts from developmental skills to social communication and compensatory strategies. Participating in activities with typically developing peers such as a birthday party or an amusement park field trip can pose unique challenges for this age group. Speech Language Pathologists can have a significant impact towards assisting the parent and child to make accommodations and preparations to be included in peer activities. The public school system offers support in the areas needed for success in an academic setting.

Teenage and Young Adult:

- Functional communication skills become even more prominent in treatment as the child enters the teen years. Increased social challenges associated with high school, college, and vocation, further support the need for direct instruction and correlation with functional life skills individualized to the individual. The long-term living environment and employment status/expectations play a significant role in the implementation of services at this age. Speech and language intervention can also assist with cognitive and reasoning skills to promote independent living. Adequate communication skills in the workplace are essential to long-term vocational success. Focusing on skills necessary for independent living versus developmental language goals is a critical component to successful therapy intervention for this age group.

Adult:

- The focus of therapy should continue to be communication for daily living and vocational skills. Consultative treatment can be helpful to support the individual in adjusting to changing life circumstances (new job, promotion, new living situation, etc.).

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SLP-5.0: Bilingual Service Criteria

SLP-5.1: Additional Criteria to Establish Medical Necessity	25
SLP-5.2: Clinical Considerations	25

SLP-5.1: Additional Criteria to Establish Medical Necessity

In addition to the criteria established in **SLP-1.2: Indications for Treatment** and **SLP-1.3: Non Indications**, the following considerations may also be applicable to help establish medical necessity.

- A description of the individual's current level of functioning or impairment.
- Standardized assessments administered in the individual's primary and secondary language at least annually that support more than one (1) standard deviation below the mean in a composite area. Individuals with exposure to more than one language must receive culturally and linguistically adapted norm referenced standardized testing in all languages the individual is exposed to in order to compare potential deficits.

SLP-5.2: Clinical Considerations

The intent of this section is not to cover every complexity that a condition or individual may present, but to inform on how common complexities may be considered as part of a review. The effect of a complexity must be considered on a case-by-case basis. It is the responsibility of the provider to clearly document any complexities to be considered.

- Equivalent proficiency in both languages should not be expected.
- Language and/or speech deficits must be present in the language in which the individual has the highest proficiency.
- Delivery of services must be in the language in which the highest receptive language proficiency.
- Thorough case history may be needed:
 - ◆ Age, manner and exposure of acquisition of the language(s)
 - ◆ Dialect of the language utilized
 - ◆ Language(s) used at home, school, etc.
 - ◆ Language(s) used with the family
 - ◆ Length and exposure to each language
 - ◆ Language of academic instruction
- Use an interpreter if necessary: a person trained to translate written text from one language to another. Additional information is available under Collaborating with Interpreters: <https://www.asha.org/Practice-Portal/Professional-Issues/Collaborating-With-Interpreters/>.

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SLP-6.0: (Central) Auditory Processing Disorder (C)APD

SLP-6.1: Additional Criteria to Establish Medical Necessity	28
SLP-6.2: Clinical Considerations	28

SLP-6.1: Additional Criteria to Establish Medical Necessity

In addition to the criteria established in **SLP-1.2: Indications for Treatment** and **SLP-1.3: Non Indications**, the following considerations may also be applicable to help establish medical necessity.

- Central Auditory Processing composite battery assessment administered at least annually that support a delay of more than one (1) standard deviation below the mean
- Formal diagnosis of (C)APD from an audiologist

SLP-6.2: Clinical Considerations

The intent of this section is not to cover every complexity that a condition or individual may present, but to inform on how common complexities may be considered as part of a review. The effect of a complexity must be considered on a case by case basis. It is the responsibility of the provider to clearly document any complexities to be considered.

- Auditory behaviors present as if hearing loss is present, despite normal hearing. (C)APD may occur secondary to a lesion or disorder or of idiopathic etiology. The following are risk factors that can be linked to (C)APD.
 - ◆ Age-related changes in Central Auditory Nervous System (CANS) function
 - ◆ Genetics
 - ◆ Neurological disorders
 - ◆ Traumatic Brain Injury (TBI)
 - ◆ Cerebrovascular disorder (e.g., stroke)
 - ◆ Toxin Exposure
 - ◆ Recurrent Otitis Media
 - ◆ Prematurity
 - ◆ Prenatal/neonatal factors
- (C)APD and ADHD frequently co-occur. Differential diagnosis requires determining whether the disorders are co-morbid or whether ADHD or CAPD is the primary (or sole) disorder.
- Due to neuromaturation of the central auditory pathways, caution must be taken when interpreting assessment results in children under the age of seven due to variability.^{1,2}
- Progress and response to treatment may be evaluated using test-retest of standardized measures as well as academic performance assessments. It is critical that the demands and needs of the individual be monitored and modified as needed over time.
- (C)APD typically requires an interdisciplinary approach involving the audiologist, speech-language pathologist, and other professionals, and should be implemented as a collaborative effort by the audiologist and speech-language pathologist (and possibly others) as soon as possible following the diagnosis to exploit the plasticity of the CNS, maximize successful therapeutic outcomes, and minimize residual functional deficits.

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SLP-7.0: Cognitive Communication Disorders

SLP-7.1: Additional Criteria to Establish Medical Necessity	31
SLP-7.2: Clinical Considerations	31

SLP-7.1: Additional Criteria to Establish Medical Necessity

In addition to the criteria established in **SLP-1.2: Indications for Treatment** and **SLP-1.3: Non Indications**, the following considerations may also be applicable to help establish medical necessity.

Pediatric:

- Standardized assessments administered at least annually that support more than one (1) standard deviation below the mean in a composite area.

Adult:

- A description of the individual's current level of functioning or impairment
- Most recent standardized evaluation scores, percent of functional delay, or standard deviation (SD) score, when appropriate, for the individual's diagnosis/disability.

SLP-7.2: Clinical Considerations

The intent of this section is not to cover every complexity that a condition or individual may present, but to inform on how common complexities may be considered as part of a review. The effect of a complexity must be considered on a case-by-case basis. It is the responsibility of the provider to clearly document any complexities to be considered.

- Gilmore et al.¹ documented a study focusing on young individuals with TBI. Significant gains were documented on at least one standardized measure with 20 hours of therapy per week for 12 weeks. Participants demonstrated increases in cognitive-linguistic functions, classroom participation and individual therapy goals. This improvement was generalized to daily living activities.
- A systematic review was conducted by Marsh² and colleagues to research treatment intensity in relation to functional outcomes in individuals post TBI. Increased functional progress and recovery was documented with early onset treatment and intensive neurorehabilitation for moderate to severe TBI.
- Symptoms will range both in amount and level of severity as will their functional effect on the individual. Common etiologies include dementia, concussion, brain tumors, stroke and traumatic brain injury.

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SLP-8.0: Fluency Disorders

SLP-8.1: Additional Criteria to Establish Medical Necessity	33
SLP-8.2: Clinical Considerations	33

SLP-8.1: Additional Criteria to Establish Medical Necessity

In addition to the criteria established in **SLP-1.2: Indications for Treatment** and **SLP-1.3: Non Indications**, the following considerations may also be applicable to help establish medical necessity.

- A description of the individual's current level of functioning or impairment
- Most recent standardized evaluation scores, percent of functional delay, or standard deviation (SD) score, when appropriate, for the individual's diagnosis/disability.

SLP-8.2: Clinical Considerations

The intent of this section is not to cover every complexity that a condition or individual may present, but to inform on how common complexities may be considered as part of a review. The effect of a complexity must be considered on a case by case basis. It is the responsibility of the provider to clearly document any complexities to be considered.

- Individuals who are functionally stable, and have an adequate means of communication are candidates for periodic or intermittent therapy services.
- Develop an individualized program designed to address the complex interaction of language, speech, emotional reactivity, observable stuttering, covert stuttering behaviors reported by an individual and relevant individuals.
- Develop an individual program designed to address symptoms and secondary characteristics of stuttering.
- Develop a treatment plan that emphasizes implementation of strategies in a variety of communication situations within his/her home, school and/or community.
- Cluttering symptoms may be decreased by regulating speech rate, over-emphasizing multisyllabic words and word endings, increasing awareness of when a communication breakdown occurs (e.g., through observation of listener reactions), and increasing self-regulation of rate and clarity of speech. Some people who clutter tend to decrease volume at the ends of sentences or phrases and, therefore, can benefit from learning to keep a steady volume throughout their utterances.
- To facilitate ongoing effective communication, home programming should include training for communication partners in communication techniques and strategies.¹

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SLP-9.0: Language Disorders

SLP-9.1: Additional Criteria to Establish Medical Necessity	36
SLP-9.2: Clinical Considerations	36

SLP-9.1: Additional Criteria to Establish Medical Necessity

In addition to the criteria established in **SLP-1.2: Indications for Treatment** and **SLP-1.3: Non Indications**, the following considerations may also be applicable to help establish medical necessity.

Pediatric Spoken Language Disorders:

- Standardized assessments administered at least annually that support more than one (1) standard deviation below the mean in a composite area.

Pediatric Written Language Disorders:

- Standardized assessments administered at least annually that support a delay of more than one (1) standard deviation below the mean in a composite area of both written and spoken language. In the absence of a documented spoken language disorder, education learning services such as reading, writing, spelling, and studying are not covered.

Adult Language Disorders:

- A description of the individual's current level of functioning or impairment.
- Most recent standardized evaluation scores, percent of functional delay, or standard deviation (SD) score, when appropriate, for the individual's diagnosis/disability.

SLP-9.2: Clinical Considerations

The intent of this section is not to cover every complexity that a condition or individual may present, but to inform on how common complexities may be considered as part of a review. The effect of a complexity must be considered on a case-by-case basis. It is the responsibility of the provider to clearly document any complexities to be considered.

Pediatrics:

- Individuals who are functionally stable, and have an adequate means of communication are candidates for periodic or intermittent therapy services. This clinical presentation is often observed in older children who have reached a functional level of communication appropriate for their developmental level.¹
- Higher frequency accompanied by high dose treatment does not necessarily equate to better outcomes. Opportunities for learning should be distributed over time to allow for generalization. High dosage, low frequency therapy services were documented to provide better outcomes than high frequency, high dosage or low dosage, low frequency intensity. Extensive practice of a single target can lead to prompt dependency or the inability to self-regulate and self-correct. Random practice treatment leads to increased self-regulation.^{2,3}
- Develop an individual program designed to address the child's immediate communication needs so that the child may participate in a variety of communication situations within his/her home, school and/or community. Constantino and Bonati report that "Communication is one of the fundamental human rights, and its impairment results in significant consequences in various areas of child development. Lack of functional communication is generally a life-long condition that

severely impacts quality of life of subjects and their families, and is highly correlated with subsequent behavioral problems and high social and economic costs.”⁴

- The individual’s characteristics affect optimal treatment intensity such as level of tolerance of therapy, cognitive level, environmental factors, and caregiver participation. Higher treatment frequency does not necessarily correlate to better outcomes. There is a concept of diminishing return in that once a certain point of function has been reached, additional change or improvement is unlikely regardless of treatment intensity.⁵
- Develop an individual program utilizing the communication strengths of the child and the expectations of the family.
- A written language disorder presents as difficulty in understanding and expressing written information because of pre-existing problems in knowledge and use of spoken language (vocabulary, grammar, syntax and non-literal language concepts). A prior or current diagnosis of a spoken language disorder typically precedes the diagnosis of a written language disorder.
- The symptoms associated with selective mutism are often attributed to the presence of psychological disorders including social anxiety and social phobia. The individual will not speak in specific social situations such as school, but speaks without difficulty in other situations. The disorder may impact achievement in educational, occupational, social areas. The failure to speak is not related to an inability to use or understand the spoken language in the social context. A team approach is appropriate and collaboration for intervention should also include the physician and/or psychologist.

Adults:

- Aphasia is caused by damage to the language centers of the brain. Damage may involve both the right and left hemispheres. One of the most common causes of aphasia is stroke/CVA. Other causes include Traumatic Brain Injury (TBI), Brain Tumor, Brain Infection, and Progressive Neurological Diseases.
- Aphasia may be masked by the motor speech disorders of apraxia and/or dysarthria. Severity ranges vary. Deficits may affect one, multiple, or all areas of language functioning. Dysphagia may be a co-morbidity. Cognitive impairments may negatively impact recovery of language skills.
- Bilingual individuals may exhibit aphasia in diverse ways for each language spoken, depending on proficiency, when language was learned, and how often each language is used.
- Cherney et al. reported that the optimal intensity for each individual will be dependent on the type of intervention, the specific skills being targeted, and the expectations of the individual. The characteristics of each individual and environmental factors all play a significant role in determining appropriate treatment frequency. This information is in addition to the type of practice utilized in therapy as described above.⁶

- A Cochrane evidence based review documents that speech language treatment is supported to increase functional communication skills for aphasia post stroke. Information suggests that high intensity, high dosage treatment over a short period of time or a similar intensity of therapy spread out over a long period of time is effective. High intensity over a short period of time may not correlate to better outcomes.⁷
- Cherney et al. conducted a systematic review regarding high intensity and low intensity services for individuals with aphasia. A series of studies were reviewed to compare the effectiveness of varied treatment intensity. The results demonstrated no significant difference between high intensity and low intensity treatment. The results suggests that the same benefits can be demonstrated with less intensive services.⁸

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SLP-10.0: Orofacial Myofunctional Disorders

SLP-10.1: Additional Criteria to Establish Medical Necessity	41
SLP-10.2: Clinical Considerations	41

SLP-10.1: Additional Criteria to Establish Medical Necessity

In addition to the criteria established in **SLP-1.2: Indications for Treatment** and **SLP-1.3: Non Indications**, the following considerations may also be applicable to help establish medical necessity.

- A description of the individual's current level of functioning or impairment.
- Most recent standardized evaluation scores, percent of functional delay, or standard deviation (SD) score, when appropriate, for the individual's diagnosis/disability.
- Most recent instrumental assessment or clinical swallow exam.

SLP-10.2: Clinical Considerations

The intent of this section is not to cover every complexity that a condition or individual may present, but to inform on how common complexities may be considered as part of a review. The effect of a complexity must be considered on a case-by-case basis. It is the responsibility of the provider to clearly document any complexities to be considered.

- A disorder of tongue and lip posture and movement. Speech misarticulations can co-occur with this condition in some individuals. Chewing and swallowing skills may also be affected.
- Orofacial myofunctional disorders may result from the following:
 - Improper oral habits such as thumb or finger sucking, cheek/nail biting, tooth clenching/grinding.
 - Restricted nasal airway due to enlarged tonsils/adenoids and/or allergies.
 - Structural or physiological abnormalities such as a short lingual frenum (tongue-tie) or abnormally large tongue.
 - Neurological or developmental abnormalities.
 - Hereditary predisposition to some of the above factors
- Symptoms of tongue thrust in children of 4-7 years may benefit from an evaluation with preventative measures prescribed. Children of 8 years through adults benefit from intervention services when their ability to communicate and swallow effectively is impaired because of an orofacial myofunctional disorder and when there is a reasonable expectation of benefit to the individual in body structure/function and/or activity/participation.

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SLP-11.0: Speech Sound and Motor Speech Disorders

SLP-11.1: Additional Criteria to Establish Medical Necessity	43
SLP-11.2: Clinical Considerations	43

SLP-11.1: Additional Criteria to Establish Medical Necessity

In addition to the criteria established in **SLP-1.2: Indications for Treatment** and **SLP-1.3: Non Indications**, the following considerations may also be applicable to help establish medical necessity.

Pediatrics:

- Standardized assessments administered at least annually that support more than one (1) SD below the mean in composite area.

Adults:

- A description of the individual's current level of functioning or impairment.
- The individual's most recent standardized evaluation scores, percent of functional delay, or standard deviation (SD) score, when appropriate, for the individual's diagnosis/disability

SLP-11.2: Clinical Considerations

The intent of this section is not to cover every complexity that a condition or individual may present, but to inform on how common complexities may be considered as part of a review. The effect of a complexity must be considered on a case-by-case basis. It is the responsibility of the provider to clearly document any complexities to be considered.

Pediatrics:

- The cause of speech sound disorders in most children is unknown. The cause of some speech sound problems is known and can be the result of motor speech disorders (e.g. Apraxia and Dysarthria), structural differences (e.g., cleft-palate), syndromes (e.g. Down Syndrome) or sensory deficiencies (e.g., hearing loss).
- Childhood Apraxia of Speech (CAS) can be caused by three primary etiologies. CAS can be present in correlation with neurological medical conditions such as childhood stroke, trauma, brain cancer, and infection. CAS can be observed as a complication of a variety of syndromes and neurobehavioral disorders such as autism, fragile X, Prader-Willi and Rhet syndrome. The origin of CAS may also be of idiopathic origin in otherwise typically developing children. Vowel distortions, inconsistent sound error patterns and/or groping behaviors are indicative of CAS as these errors are not typically observed in developmental speech sound disorders.
- Sugden and colleagues¹ researched parent-implemented interventions and reported an average of 4 to 15.8 hours of training for parents and caregivers. Studies were shown to demonstrate positive outcomes in treatment for speech sound disorders with this level of caregiver intervention.
- Phonological intervention was reported to be effective with a minimum of 50 trials in at least 30 sessions by Williams et al.² Severe phonological delays required a dosage of 70 trials to support meaningful progress. The greater intensity of trials was reported to occur early in the course of intervention with less trials in a more naturalistic setting (generalization) occurring over time.

- Jacoby and colleagues³ discussed frequency and duration intensity for improvement in speech and language functioning. The results indicated that more severe deficits required a higher intensity of therapy in order to demonstrate improvement. Over 75% of subjects showed an increase in at least one FCM level after 20 hours of therapy services. The younger children received more benefit per unit of therapy than older subjects.
- Parent-implemented interventions are found to be as effective as direct intervention when the frequency and duration are similar in intensity, and caregivers receive direct instruction. Current research supports the effectiveness of caregiver implemented intervention delivered in a naturalistic setting.⁴ In addition, parent implemented interventions are directly correlated with increased parent satisfaction and potentially increased treatment outcomes. The specific protocol for the most effective treatment has yet to be established. However, evidence shows that parent implemented intervention can be effective in treatment of speech sound disorders. In both habilitative and rehabilitative therapy, functional use of a skill requires extensive practice and integration into the individual's home routine. Parents and caregivers should be educated and supported to incorporate skills outside of the therapeutic setting.⁵
- Individuals who are functionally stable, and have an adequate means of communication are candidates for periodic or intermittent therapy services. This clinical presentation is often observed in older children who have reached a functional level of communication appropriate for their developmental level.⁶
- Namasivayam et al. reviewed studies to examine treatment intensity and outcome measures for children with CAS receiving individual motor speech intervention or using principals of motor learning. Their review concluded that higher intensity treatment services resulted in better outcomes for functional communication when comparing 1 x weekly to 2x weekly. Over a 10 week period, testing pre-treatment when compared to post treatment yielded higher scores overall for the high intensity group. The importance of intensive treatment is stressed based on the need for repetitive practice in motor speech disorders.⁷

Adults:

- Wambaugh et al. studied the effects of dose frequency on outcomes. The study concluded that there was no differences in improvement of speech associated with dose frequency and duration. All participants improved function. Response generalization may relate to apraxia severity or stimulus factors.⁸
- If apraxia of speech or dysarthria is severe, during the course of treatment, determine if low or high tech augmentative or alternative aids must be developed, obtained and trained.⁹
- Dysarthria can be mild or very severe, and involve several systems. The symptoms will range in both number and intensity as well their effect on articulation, respiration, swallowing and phonation. Common causes include trauma, brain injury, brain tumor, and conditions that cause facial paralysis or weakness and degenerative disease.

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SLP-12.0: Swallowing and Feeding Disorders

SLP-12.1: Additional Criteria to Establish Medical Necessity	47
SLP-12.2: Clinical Considerations	47

SLP-12.1: Additional Criteria to Establish Medical Necessity

In addition to the criteria established in **SLP-1.2: Indications for Treatment** and **SLP-1.3: Non Indications**, the following considerations may also be applicable to help establish medical necessity.

Dysphagia:

- Individual's most recent instrumental assessment or bedside swallow evaluation.
- A clinical dysphagia evaluation will include: assessment of posture, positioning, individual motivation, oral structure and function, efficiency of oral intake and clinical signs of safety. A variety of positions, feeding techniques, compensatory strategies and adaptive utensils may be used during the examination.

Pediatric Feeding Aversions

- Feeding and swallowing evaluation including oral motor exam; the intake of liquids and solids; a list of the types, textures, and amounts of foods that are eaten; how the caregiver is involved in the program; and feeding history.

SLP-12.2: Clinical Considerations

The intent of this section is not to cover every complexity that a condition or individual may present, but to inform on how common complexities may be considered as part of a review. The effect of a complexity must be considered on a case-by-case basis. It is the responsibility of the provider to submit information regarding any complexities to be considered.

Dysphagia:

- Team management approach may be needed with a registered dietitian and/or gastroenterologist for clinical signs and symptoms of reflux and to determine nutrition and hydration.
- Dysphagia can be caused from a variety of etiologies. Listed below are some examples of common medical conditions that may result in pediatric dysphagia.
- Medical conditions such as heart disease, pulmonary disease, gastro-esophageal reflux disease [GERD], and delayed gastric emptying
 - ◆ Developmental delays
 - ◆ Neuromuscular Disorders
 - ◆ Prematurity and low birth weight
 - ◆ Genetic syndromes such as Down syndrome Pierre Robin Sequence, Prader–Willi, Rett syndrome, and Treacher Collins syndrome
 - ◆ Pharmaceutical medications
 - ◆ Neurological disorders such as cerebral palsy, meningitis, traumatic brain injury, and muscle weakness in face and neck
 - ◆ Structural abnormalities such as cleft lip and/or palate and other craniofacial abnormalities

- Research has shown the correlation between oral motor and gross motor development in children. When assessing and developing a treatment plan for children with dysphagia, it is important to take note of gross motor developmental milestones. There is a wide range within the range of normal for typically developing children, much less children with developmental delays and medical conditions. Gross motor development is connected to oral motor development and feeding/chewing skills. Key milestones such as sitting independently, crawling, standing, and walking are linked to the feeding skills of suckle, munching, vertical chew, rotary chew and self-feeding development. Incorporating gross motor assessment into a feeding evaluation can assist in determining if the child's feeding skills are developing as expected. If a delay is noted, it can assist in targeting feeding skills that are developmentally appropriate for the child.
- Dysphagia can be caused from a variety of etiologies for adults. Etiology may be secondary to injury to the central nervous system (CNS) or cranial nerves, and unilateral cortical and subcortical lesions. In addition, injury to the head and neck may result in significant impairment. Listed below are some examples of common medical conditions that may result in a dysphagia.
 - ◆ Traumatic brain injury (TBI)
 - ◆ Stroke
 - ◆ Dementia
 - ◆ Parkinson's disease
 - ◆ Developmental disabilities in an adult population
 - ◆ Cancer in the oral cavity, pharynx, nasopharynx, or esophagus
 - ◆ Progressive disorders
 - ◆ Trauma or surgery involving the head and neck
 - ◆ Decayed or missing teeth
 - ◆ Critical care that may have included oral intubation and/or tracheostomy
 - ◆ Pharmaceutical medications
- Eltringham and colleagues conducted a systematic review regarding dysphagia treatment and post stroke pneumonia. Findings supported early detection, less than 24 hours after admission, and intervention for individuals post-stroke is directly correlated with better outcomes and decreased risk of pulmonary complications.^{2,3,4}
- Evidence exists that neuromuscular electrical stimulation (NMES) in conjunction with behavioral swallowing treatment can be an effective method of treatment for swallowing function in individuals with oropharyngeal dysphagia of different etiologies. There is insufficient evidence in the published, peer-reviewed scientific literature to conclude that NMES/electrical stimulation by itself is effective in the treatment of dysphagia. Well-designed, randomized, controlled clinical trials are needed to demonstrate the effect and the clinical benefit of electrical stimulation for swallowing conditions.^{5,6,7}

Pediatric Feeding Aversions

- If the caloric intake is not sufficient, the following factors should be considered:
 - ◆ Oral motor weakness or structural impairment
 - ◆ Conditions that may cause consistent loss of calories through vomiting
 - ◆ Conditions that may cause muscle weakness
 - ◆ If the individual's caloric intake is sufficient, but growth deficiency is still evident, the following factors should be considered:
 - ◆ Medical conditions that affect caloric absorption
- If caloric intake is sufficient, and growth is appropriate for development, one or more the following conditions must be present for approval of feeding/ swallowing therapy:
 - ◆ The individual currently has a G-tube or is participating in a G-tube weaning program
 - ◆ The individual is at risk for placement of a G-tube secondary to falling below the 10th percentile on the Growth Chart for the National Academy of Pediatrics
 - ◆ The individual currently consumes supplemental nutrition
 - ◆ Chronic food refusal with limited variety of food group consumption⁸
 - ◆ Failure to advance textures⁸
 - ◆ Inappropriate mealtime behaviors (ex: throwing food, grazing patterns of eating, etc.)⁸
 - ◆ Sensory disorders that affect typical developmental feeding progression or swallowing phases⁹
- Indication for skilled intervention is dependent on multiple documented factors:
 - ◆ Prior treatment received to include the following: Duration, intensity, progress, carry over, number of episodes of treatment, gaps in episodes of treatment, etc.
 - ◆ Severity of the nutritional deficit, as indicated by a physician or dietician
 - ◆ Current potential for progress: Rationale that indicates the individual's potential for progress that differs from prior status
 - ◆ Individual commitment/ desire to participate
 - ◆ Family participation and carryover
 - ◆ Community support
- A proactive, family-centered approach (particularly in the first three years could prevent many feeding disorders because parents, caregivers, and professionals will know what skills to encourage, when to encourage them, when a child is going "off track," and when to refer a child to a feeding specialist.¹⁰
- Treatment should have the following characteristics:
 - ◆ A multi-disciplinary approach. The Speech and OT treatment plans must focus on different aspects of care.
 - ◆ Episodic & periodic in nature.
 - ◆ Typical duration of up to 1 year. (If the individual has a gastrostomy-tube (G-tube) status with no prior oral intake then the duration of treatment may take up to 2 years).

Pediatric Intensive Feeding Therapy Criteria^{8,11,12,13}

- Intensive feeding therapy programs have been developed in order to provide high intensity services for individuals who are not responding to traditional outpatient feeding/swallowing therapy treatment. Service delivery includes both inpatient and day treatment programs. Services provided may include: gastroenterologist, psychologist, nutritionist, social worker, occupational therapist, and speech therapist. Programs are approximately 4 to 8 weeks in duration.
- Criteria for admission into these programs vary slightly, but some consistent parameters exist across multiple providers.
 - ◆ The individual presents with a feeding disorder secondary to a medical condition such as failure to thrive, prematurity, developmental disorder, gastroenterology conditions, and gastroenterology tube.
 - ◆ Treatment for the underlying medical condition has taken place, and the feeding issue has not resolved.
 - ◆ Traditional outpatient treatment has been attempted, but was not successful in remediating feeding concerns.
 - ◆ A parent or guardian is an active participant in the treatment plan.
- Intensive feeding therapy criteria are not supported in the following circumstances.
 - ◆ As a preventative measure for anticipated decrease in function
 - ◆ If a home program can be utilized to continue therapy
 - ◆ Treatment for selective eating for an individual who is meeting typical growth or developmental milestones.

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SLP-13.0: Voice Disorders

SLP-13.1: Additional Criteria to Establish Medical Necessity	53
SLP-13.2: Clinical Considerations	53

SLP-13.1: Additional Criteria to Establish Medical Necessity

In addition to the criteria established in **SLP-1.2: Indications for Treatment** and **SLP-1.3: Non Indications**, the following considerations may also be applicable to help establish medical necessity.

- A description of the individual's current level of functioning or impairment.
- Referral for ENT physician diagnostic findings or laryngeal instrumental assessment.

SLP-13.2: Clinical Considerations

The intent of this section is not to cover every complexity that a condition or individual may present, but to inform on how common complexities may be considered as part of a review. The effect of a complexity must be considered on a case-by-case basis. It is the responsibility of the provider to clearly document any complexities to be considered.

- **Organic:** voice disorders that are physiological in nature and result from alterations in respiratory, laryngeal, or vocal tract mechanisms
- **Structural:** Vocal pathology that involves structural change of the vocal folds. Examples include vocal fold nodules, polyps, cysts, reflux laryngitis, sulcus vocalis, muscle atrophy of the larynx due to aging, recurrent respiratory papillomatosis, and laryngeal web.
- **Neurogenic:** voice disorders that result from problems of central and peripheral nervous system innervation to the larynx. Examples include unilateral or bilateral vocal cord paralysis, spasmodic dysphonia, vocal tremor, and essential tremor.
- **Functional:** Voice disorders that result from improper or inefficient use or function of the vocal mechanism in the presence of normal laryngeal anatomy. Examples include muscle tension dysphonia/aphonia (excessive tension during voice production), puberphonia, and vocal fatigue.
- **Psychogenic:** Psychological stress may contribute to onset of dysphonia/aphonia due to improper vocal habits.
- **Paradoxical Vocal Fold Movement (PVFM):** An involuntary or abnormal closure or adduction of the vocal folds, usually during inhalation. This upper airway obstruction causes breathing difficulty. It can sometimes be misdiagnosed as exercise-induced asthma.¹
- **Chronic cough:** characterized as cough lasting more than 8 weeks in adults and more than 4 weeks in children.²
- Transgender and Gender Diverse populations may benefit from voice interventions to address one or more vocal parameters, language usage, and nonverbal communication such as proxemics, facial expression, use of gestures to meet individual centered goals.³
- Treatments aimed at modifying deviant vocal symptoms or perceptual voice components using a variety of facilitating techniques. Symptoms could include breathy phonation, glottal attacks or glottal fry, deviant pitch, or voice that is too soft or loud.

- Severity of the voice disorder cannot always be determined by auditory-perceptual voice quality alone.
- A voice prosthesis may be needed in the instance that results in the loss of functional voice. Types of speaking devices may include the following:
 - ◆ Tracheoesophageal Puncture and Prosthesis
 - ◆ Electrolarynx
 - ◆ Speaking Valve

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Augmentative and Alternative Communication (AAC)

- AAC strategies including gestures, drawing, low tech, and speech generating devices are supported for use with individuals with aphasia and those working on language acquisition. Use of Blissymbols are supported for individuals with severe physical and speech deficits but high intellect. For those learning language use of AAC should follow typical developmental patterns. Core words should be presented rather than just nouns. Tablets/iPads are popular for AAC, but applications and devices should be chosen following trials with the individual to determine what is most functional. Successful use of AAC equates to minimal physical effort and performance for long periods of time with little fatigue, device should not interfere with attention to activities, and it should meet the needs of communication for the individual. Considerations should include where, when, and with whom the individual communicates, their current communication skills, and linguistic ability (vocabulary, symbols).¹

Amyotrophic Lateral Sclerosis (ALS)

- This research article reviewed qualitative studies including reported personal experiences of individuals with ALS who received PT, OT and SLP interventions. Reports included the concepts of control, adaptation during disease progression, advantages and limitations of interventions. Overall, persons with ALS reported that rehabilitation interventions appeared to support their quality of life.²

Autism Spectrum Disorder (ASD)

- A randomized controlled trial evaluating the efficacy of the Early Start Denver Model (ESDM) was conducted by Dawson and colleagues. The ESDM focuses on a comprehensive developmental and behavioral program of intervention for toddlers diagnosed with ASD between the ages of 18-30 months. The program is based on developmental and applied behavioral analytic principles provided by trained therapists, along with parents. Participants who received the Early Start Denver Model made significant gains over the comparison group receiving a community based intervention model. This trial demonstrated the effectiveness of early intervention for toddlers with ASD. Results emphasize the significance of early detection and intervention for individuals diagnosed with autism.³
- In a study by Hampton and Kiaiser, children with autism spectrum disorder significantly increased use of spoken language when exposed to early interventions. Results demonstrated greater gains in the children who received service delivery implemented simultaneously by a parent and clinician.⁴
- There is current evidence to support interventions for children diagnosed with autism spectrum disorder prior to 3 years of age, according to a study by Zwaigenbaum et al. The study supported the significant parental role of incorporating teachable moments into everyday learning activities. Approaches primarily involved social communication, by integrating developmental and behavioral interventions. Intervention models that focused on imitation skills and social communication demonstrated a significant outcome after treatment.⁵

Aural Rehabilitation

- Hearing loss is prevalent in adults over the age of 65. About one-third of adults are negatively impacted by hearing loss. There are many psychological and social ill effects of hearing loss including feelings of loneliness, sadness, despair, and a sense of helplessness. Adult aural rehabilitation is defined as a reduction in hearing loss induced deficits of function, activity, participation, and quality of life. Methods of rehabilitation include hearing-aid fitting/hearing device management, auditory training, speech-reading training, counseling, home training, and inclusion of family/significant other in treatment. The benefits of hearing devices such as cochlear implant and hearing aids are well documented, but hearing amplification does not eradicate all problems related to hearing; however, researchers conclude that evidence for aural rehabilitation for adults with hearing loss is inconclusive. Still, some positive effect was noted with individual communication training in terms of quality of life.⁶
- Auditory training involves treatment to improve speech perception for those diagnosed with hearing loss. Treatment may occur individually or in a group setting. Treatment typically focuses on supplementing information regarding hearing loss and hearing aid, learning strategies for communication, and management of any psychosocial implications of the hearing loss. Authors found that there is some evidence that auditory rehabilitation programs are associated with improved social participation and quality of life.⁷
- While newborn hearing screenings, hearing aids, and cochlear implants decrease the impact of hearing loss, typical language development is still not guaranteed, as many children with hearing loss have gaps in auditory, speech, and language development. Reviewers note 5 main treatment approaches: auditory-verbal, auditory-oral, total communication, bilingual-bicultural, and sign language. Auditory-verbal and auditory-oral treatment approaches focus on oral communication only. In total communication and bilingual-bicultural treatment focus is on a combination of oral communication and sign language. Researchers found that treatment approaches focused on oral communication result in higher levels of improvement in auditory, speech, and expressive language skills than do those that include sign language. In terms of receptive language, improvement results are similar across all approaches.⁸
- The Joint Committee on Infant Hearing recommends a flexible treatment approach with a focus on family's preference when treating individuals with hearing loss. Researchers note that hearing devices are effective in improving auditory skills. For those with mild hearing loss and diagnosed language impairment, treatment including hearing aids and auditory training with focus on listening skills appears to result in improvement. For children diagnosed with severe to profound hearing loss, cochlear implant along with intensive treatment over several weeks following implantation is the best choice for optimal development. Treatment focus should include parent training and auditory and language skill development. Treatment programs that focus less on sign language and more on auditory-verbal skills have resulted in more improvement, and authors recommend a multi-disciplinary approach to treatment.⁹

(Central) Auditory Processing Disorder (C)APD

- Auditory interventions are programs focused on acoustic features including auditory components of speech and non-speech stimuli such as rate, frequency, and intensity of background noise. Spoken language intervention programs are those that target language form, content, and use. Children diagnosed with CAPD frequently have spoken language disorders. Researchers concluded that while there is some evidence to support that auditory and language interventions can improve primary language disorders, little evidence suggests that the auditory features of treatment programs have a positive impact on improvement. Auditory Integration Therapy is not supported. FastForward, an auditory intervention program, showed less benefit than other programs such as Earobics, which is a language-based intervention, but overall, there is weak evidence that intensive, short-term auditory intervention may improve auditory function and even less evidence that these programs improve spoken and written language. If a language disorder is suspected along with CAPD, Pt should be evaluated, and treatment should focus on the identified language delays.¹⁰
- Auditory processing disorders often coexist with language and reading disorders, with poor phonological perception noted as a common deficit. APD is also commonly found in those diagnosed with ASD and may be found in those with an ADHD diagnosis. APD is diagnosed by an audiologist following the administration of specific audiological tests. A multidisciplinary approach to treatment with 3 main target areas is recommended as best practice for children. These include: 1. amplification, FM system, 2. auditory training using evidence-based programs, and 3. language intervention. Recommendation for adults include use of hearing aids and auditory training.¹¹

Cognitive Communication Disorders

- The studies reviewed in this research article revealed that overall, multiple forms of cognitive treatment interventions were effective for persons with stroke and /or TBI. Several recommendations for effective treatment parameters were made to target remediation of language, attention, memory, and executive functioning, relative to the treatment diagnosis.¹²

Fluency Disorders

- A number of evidenced-based early childhood, school-aged, adolescent and adult intervention treatment programs are described including: The Lidcombe Program, Palin Parent-Child Interaction, The Westmead Program, The Camperdown Program, The Comprehensive Stuttering Program, and Intensive Smooth Speech. Early treatment is noted as the best option due to recoverability. Evidence supports video self-modeling for decreasing stuttering in older children and adults. Devices such as SpeechEasy and pharmacological treatments have not proven effective in treating stuttering.¹³

Disorders of Language, Speech Sound, Motor Speech, and Voice

- Significant speech/language improvements for individuals with aphasia have been associated with intensive therapy in multiple studies. Unfortunately, there is no consensus on the definition of intensive therapy. More is not necessarily better. Baker examined current evidence regarding treatment intensity, compared studies of higher and lower levels of treatment intensity and looked at computer-based script training and outcomes. Results concluded that intensity alone is insufficient without considering dynamic components of the teaching event.¹⁴
- Enderby concluded that it is essential to take into account the objectives of therapy when considering treatment intensity. There is a broad range of individual and social factors that influence the individual's commitment to an intensive treatment schedule. The individual, family members and therapist are not always available for an intensive treatment schedule. Enderby suggests that the SLP can include a wide range of tactics to increase the amount of therapy available to individuals, including increasing self-management through home programs, computerized therapy programs, use of volunteers and family members and improving the skill mix when planning treatment goals.¹⁵
- There is a strong recommendation that aphasia therapy should be provided to stroke survivors to improve functional communication. There is no strong recommendation that intensive therapy for individuals with aphasia (45 minutes of therapy 5 days a week) will improve functional communication.¹⁶
- In this research article, the results from 25 studies support speech and language treatment was effective for phonological and vocabulary delays in children. Treatments provided individually, or in a group by a therapist or a trained parent showed no significant difference. The use of peers exhibiting normal language during therapy sessions also showed a positive impact on treatment outcomes.¹⁷
- LSVT treatment provided for 4 one- hour sessions per week for 4 weeks was shown to improve the following speech characteristics: intelligibility, articulation and pitch. This brain imaging study revealed that cortical hypoactivation correlated with hypokinetic dysarthria. Effective LSVT showed increased activation of these cortical areas during high versus normal intensity speech production.¹⁸
- Awan and colleagues recommended instrumental assessment protocols to assess voice and vocal function. Protocols provided technical specifications for examination and recommended the use of imaging, acoustic measures, and aerodynamic methods to collect more valid and reliable measures. These measures can be used to obtain a more complete case history when performed along with auditory perceptual analysis and the self-perception of the individual.¹⁹
- This systematic review addressed the outcomes of voice therapy provided by speech-language pathologists. Findings indicate the most important parameter impacting perception of treatment effectiveness is voice quality, which includes breathiness, roughness and harshness of quality. Studies over the last 20 years which focused on the impact of voice treatment for dysphonia were classified as treatments for functional dysphonia, organic dysphonia, or both. The findings

indicated that any statistically significant outcomes were limited and varied among individuals. Treatment effectiveness remains in question due to the wide diversity of vocal diagnoses, treatments, individual subject differences, and assessment instruments. However, overall findings suggested that direct treatment is more effective than indirect interventions. Additionally, voice therapies targeting manual reduction of laryngeal tension and accent reduction resulted in more positive effects than in non-targeted therapy. Studies support statistically significant improved outcomes with diagnosis specific treatments, such as those for vocal nodules or mutational dysphonia. Treatment sessions were varied in duration, with some reports of significant improvement after only one visit. Overall findings suggest targeted, individualized voice therapy produced the most positive outcomes.²⁰

Traumatic Brain Injury (TBI)

- TBI is a chronic condition. Researchers found that the earlier the onset of TBI the higher risk of long term language and learning issues. Age of onset and severity of injury determine prognosis. All children sustaining moderate-severe TBI should be evaluated for rehabilitative services. Those with mild TBI who demonstrate prolonged symptoms should also be evaluated. There is a need to fill gaps in service for cohesive coordination of care from healthcare to educational setting. Treatment should focus on rehabilitation of skills lost and the learning of new skills as executive functioning is typically most impacted and this leads to difficulties in processing and self-regulation.²¹

Swallowing and Feeding Disorders

- This evidence and consensus based guideline, (written by a multidisciplinary team), offers ⁸⁸ recommendations for use in the clinical management of oropharyngeal dysphagia and clinical nutrition for ALS, Parkinson's disease, stroke, and multiple sclerosis.²²
- Cincinnati Children's Hospital Medical Center's Best Evidence Statement supports intensive feeding programs combining oral motor and behavioral interventions for children birth through adolescence.
- Behavioral interventions to increase intake include:
 - ◆ Differential attention tasks
 - ◆ Positive reinforcement
 - ◆ Escape extinction/escape prevention
 - ◆ Stimulus fading
 - ◆ Simultaneous presentation
 - ◆ Differential reinforcement of alternative behavior
 - ◆ Use of a flip spoon for food presentation²³
- According to Park, Burgos and Winstein et al., there is insufficient evidence in the published, peer-reviewed scientific literature to conclude that NMES/electrical stimulation by itself is effective in the treatment of dysphagia. Well-designed, randomized, controlled clinical trials are needed to demonstrate the effect and the clinical benefit of electrical stimulation for swallowing conditions.^{24,25,26}

- The National Institute for Health and Care Excellence (NICE) published guidance for use of NEMS (neuromuscular electrical stimulation) for adults with oropharyngeal dysphagia. Guidance includes:
 - ◆ There is potential benefit for NEMS for adults with oropharyngeal dysphagia, however, the efficacy evidence is limited in quantity and quality of evidenced based studies.
 - ◆ There is insufficient evidence to support NEMS for adults with dysphagia not caused by stroke.
 - ◆ Additional research is needed for use of NEMS on adults with dysphagia, addressing selection of the individuals, technique variations, need for retreatment and long-term outcomes.²⁷
- In order to improve swallowing skills, individuals with dysphagia should be offered direct treatment that incorporates strength training in conjunction with the intake of food/fluids, and indirect motor therapy which uses the principles of neural plasticity. Individuals who have acute post-stroke dysphagia should receive therapy early. Therapy should include behavioral swallowing exercises, environmental modifications, safe swallowing guidance, and applicable dietary modifications.²⁸
- The swallowing treatments considered to manage dysphagia after childhood stroke should include:
 - ◆ dietary modifications and alteration of food consistency
 - ◆ environmental modifications
 - ◆ use of specialized equipment
 - ◆ strategies such as chin tuck, jaw support, head rotation, double swallow, effortful swallow, oral motor exercises, thermal stimulation, pacing, visual feedback and systematic desensitization.
- Non-oral feeding strategies should only be used to manage severe dysphagia.²⁹

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