



CLINICAL GUIDELINES

Speech Language Pathology (SLP) Services

Version 1.0.2022

Effective December 7, 2022



eviCore healthcare Clinical Decision Support Tool Diagnostic Strategies: This tool addresses common symptoms and symptom complexes. Imaging requests for individuals with atypical symptoms or clinical presentations that are not specifically addressed will require physician review. Consultation with the referring physician, specialist and/or individual's Primary Care Physician (PCP) may provide additional insight.

eviCore's Clinical Review Criteria ("CRC") and related content is made available for the limited uses of: reference; and individual use, only limited to facilitating the determination of medically necessary and appropriate clinical treatment by clinicians for specific delegated patients under their care. The CRC and related content is proprietary information of eviCore, and copyrighted to the full extent of the law. Except as expressly permitted, you may not modify, copy, reproduce, republish, upload, post, transmit, hyperlink to or from, or distribute in any way the CRC, nor may you sell, transfer, distribute, assign, lease, reproduce, or otherwise use the CRC in commerce, in a manner that competes with us or infringes upon our rights, or for any public or commercial endeavor without our prior and express written consent.

CPT® (Current Procedural Terminology) is a registered trademark of the American Medical Association (AMA). CPT® five digit codes, nomenclature and other data are copyright 2022 American Medical Association. All Rights Reserved. No fee schedules, basic units, relative values or related listings are included in the CPT® book. AMA does not directly or indirectly practice medicine or dispense medical services. AMA assumes no liability for the data contained herein or not contained herein.

©2022 eviCore healthcare. All rights reserved.

Table of Contents

Guideline	Page
Criteria for the Provision of Speech Language Pathology (SLP) Services (SLP-1.0)	3
Criteria for the Provision of Speech Language Pathology (SLP) Services (SLP 1.0).....	4
Definitions (SLP 1.1).....	5
Criteria to Determine Medical Necessity for Skilled Speech Language Pathology Services (SLP-1.2).....	9
Rules, Coverage, Benefits, and Mandates (SLP-1.3).....	13
Clinical Considerations (SLP-2.0)	14
Clinical Considerations (SLP-2.0).....	15
Cognitive Communication Disorders Considerations (SLP-2.1).....	17
Hearing and Auditory Processing Disorders Considerations (SLP-2.2).....	19
Language Disorders Considerations (SLP-2.3).....	21
Speech Production Disorders Considerations (SLP-2.4).....	23
Swallowing and Feeding Disorders Considerations (SLP-2.5).....	25
References (SLP)	27
References.....	28

Criteria for the Provision of Speech Language Pathology (SLP) Services (SLP-1.0)

Criteria for the Provision of Speech Language Pathology (SLP) Services (SLP 1.0)

SLP.1.0.A
v1.0.2022

The Evicore clinical review criteria provide guidance regarding the determination of medically necessary care during reviews of requests for skilled care coverage. Reviews based on these (Evicore) guidelines consider all clinical information submitted as part of a request. Decisions that are based on these criteria determine an appropriate amount of skilled care authorized for a duration of time specified by the individual's health plan (see **Criteria to Determine Medical Necessity for Skilled Speech Language Pathology Services (SLP-1.2)**), but do not determine the specific treatments a provider must use. The provider is responsible to create and follow efficacious treatment and self-care plans that result in an individual's appropriate responses to care.

Please be advised:

- Specific health plan policies and benefits, local/national rules and mandates may take precedence over these guidelines (see **Rules, Coverage, Benefits, and Mandates (SLP-1.3)**).
- Evicore Clinical Review Criteria Guidelines are not intended to be used as treatment guidelines and should not be considered synonymous with peer-reviewed clinical practice guidelines or similar published treatment guidelines.

Definitions (SLP 1.1)

SLP.1.1.A

v1.0.2022

Skilled Rehabilitative Care

Skilled rehabilitative care is service provided to improve an individual's functional ability (associated with an injury, disability, disease or other condition) that is necessary to return the individual to a reasonable functioning level required to perform their activities of daily living (ADL) and instrumental activities of daily living (IADL). Skilled care shall be of such a level of complexity that the services required can only be safely and effectively performed by a qualified provider. Skilled rehabilitative care generally occurs within a reasonable period of time, is not repetitive or routine, results in a clinically and functionally appropriate response and is guided by evidence-based practice within the professional scope of the provider.¹

Skilled Maintenance Care

Skilled maintenance care is service that is required to create and monitor a specific self-maintenance program for an individual (with help from a caregiver if needed) to prevent or slow deterioration of their ability level and condition. Skilled maintenance care to create, teach and monitor such a program shall be of such a level of complexity that the services provided can only be safely and effectively performed by a qualified provider. Skilled maintenance care visits generally occur infrequently and are only to establish goals and steps of the program with the individual and caregiver. The steps required to follow the program are to be carried out independently by the individual and their trained caregivers.¹

Skilled Habilitative Care

Skilled habilitative care is generally defined as services that help an individual to keep, learn, or improve functioning required for daily living. Skilled habilitation shall be of such a level of complexity that the services required can only be safely and effectively performed by a qualified provider. Specific definitions may vary based on state policy, but most states have adopted some version of the National Association of Insurance Commissioners (NAIC) definition.²

Preventative Care

For the purposes of this document, preventive care includes ongoing management of the asymptomatic or stable individual to prevent or avoid disability. Any disability the individual has already been addressed. The level of skill needed to provide the service is not complex enough to be deemed as skilled (as defined above). The individual (with help from caregivers as appropriate) can maintain their ability; continued services of this type do not require the skills of a provider.³

Non-Skilled Care

For the purposes of this document, non-skilled care includes any services or procedures that are repetitive or that only serve to reinforce previously learned treatments, skills, or repetitious practice for motor learning. It also includes any

services or procedures being provided that do not address specific, documented, functional deficits in the individual's essential functions of daily living. Care that was previously skilled may be deemed non-skilled when there has been sufficient time for the individual to respond appropriately to an episode of care and for a home program to be established (with or without a caregiver). Non-skilled services do not involve complex and sophisticated skill or require the judgment of a qualified provider for safety and plan adjustments. The unavailability of a competent person to provide a non-skilled service (caregiver, trainer, coach, etc), regardless of the importance of the service to the individual, does not make that service skilled when a therapist furnishes the service.¹

Essential Functions of Daily Living

Activities of Daily Living (ADLs) are oriented towards taking care of oneself. ADLs are also referred to as basic activities of daily living (BADLs) and personal activities of daily living (PADLs). These activities include bathing, toileting, dressing, eating, mobility, personal hygiene, grooming, sleep, management of health conditions, and sexual activity.⁴

Instrumental Activities of daily Living (IADLs) are activities to support daily life within the home and community that often require more complex interactions such as the care of others, child rearing, communication, driving, household chores, financial management, employment, social interaction, education and essential play (for young children).⁴

Appropriate Response to Skilled Care

An appropriate and significant response to *skilled rehabilitative care* may be demonstrated through:

- Clear documentation of objective measurements or a description of functional status changes that show regular improvement through progress toward appropriate treatment goals.
- Marked improvement in standard measures appropriate for the individual's specific problem as it relates to their daily life, such as function based performance measures, self-rating assessments/questionnaires, or reliably quantified ability levels over a reasonable period of time.
- Marked improvement in multiple measures of participation in ADLs/IADLs and/or appropriate and quantifiable goals and/or symptoms.
- Documented improvement in Functional Communication Measure (FCM) levels and/or National Outcomes Measurement Scale (NOMS) ratings (when provider is certified and participating in NOMS reporting).

An appropriate response to *skilled maintenance care* may be demonstrated through:

- The individual and/or caregivers being able to reasonably follow the established program to maintain or slow decline of the present condition or problems.

- A documented need for additional skilled care by a provider to monitor the effectiveness and safety of the established program and make periodic changes to the plan to allow the individual and caregivers to be independent with the program.

An appropriate response to *skilled habilitative care* may be demonstrated through:

- A documented need for continued skilled care based upon appropriate improvement from baseline testing of standardized outcome, performance and/or criterion measures.
- Clear documentation of objective measurements or a description of functional status changes that show regular improvement through progress toward appropriate treatment goals.

Please reference the **Clinical Considerations (SLP-2.0)** section below for additional information regarding the use of standardized outcome and performance-based measures to help demonstrate an individual's response to skilled care.

Complexities / Complications

Individuals may present with any variety of situations, conditions or other factors not directly associated with their condition for which they are seeking care but that differentiate them from a "typical" presentation. These complexities may be due (but not limited) to: major medical comorbidities, pathological comorbidities, psychological comorbidities, cognitive status, socioeconomic status, multi-system diagnoses, frailty, and medications.

An individual may also experience any variety of new problems or circumstances that directly complicate their current problem for which they are seeking care. These complications may be due (but not limited) to: adverse healing (infections, chronic swelling/edema, scar tissue or non-closure); neurologic status (extrapyramidal symptoms, changes in level of consciousness/alertness, cognition, myelopathy, dyskinesia, spasticity, rigidity, or tremors); or hospitalization.

Condition Severity Grading

An individual's speech-related problems can be classified, in part, by severity. Severity is a function of multiple factors which can include, but are not limited to, the frequency, duration, and intensity to which the problem occurs. Severity grading helps to provide context to the problem or condition the individual is facing as part of a review for medical need of skilled care. However, it does not guarantee medical need or authorization of care.⁵ In general, problems associated with a condition may be classified as mild, moderate or severe:

- **Mild problem** - the problem is present less than 25% of the time, with a tolerable intensity, and has only rarely presented, as a new or previously untreated issue, in the last thirty days. It generally does not interfere with daily life. (e.g. delay that minimally interferes with communication or educational, social and vocational skills; -1 to -1.5 standard deviations from an assessment mean score)

- **Moderate problem** - the problem is present between 25%-50% of the time, with an intensity that sometimes interferes with daily life. (e.g. delay that moderately interferes with communication and usually impacts some skill acquisition resulting in loss of educational, social and vocational skills; -1.5 to -2 standard deviations from an assessment mean score)
- **Severe problem** - the problem is present between 50%-95% of the time, with an intensity that occurs frequently and partially alters daily life. (e.g. limited functional communication that always interferes with skill acquisition and results in significant loss of educational, social and vocational skills; > 2 standard deviations from an assessment mean score)

Duplicative Therapy Services

Services provided to an individual under two or more different disciplines, or providers, for the same body-part or diagnosis with the same or similar plan of care for treatment are considered duplicate services. This is not the same as interdisciplinary or multi-disciplinary care where an individual may receive care from different disciplines but each with different plans of care, goals and treatments.

Generally Accepted Standards of Practice

For these purposes, generally accepted standards of practice are widely accepted clinical concepts and practices based on published, credible, high-level, scientific, evidence-based clinical practice guidelines. In the absence of such guidelines for a specific area of practice, a collection of high-level established peer-reviewed literature may also be generally recognized by the relevant healthcare community.⁶ The **Clinical Considerations (SLP-2.0)** in this publication provides additional context in reference to usual and reasonable care for common specialty areas of skilled care.

Individual

For the entirety of this document, the term “individual” refers to the person for whom services are requested (i.e. patient, client) AND/OR any non-clinical caregivers or caretakers (including caregivers, restorative staff, parents, guardians, family, friends, etc) that are assisting them.

Criteria to Determine Medical Necessity for Skilled Speech Language Pathology Services (SLP-1.2)

SLP.1.2.A

v1.0.2022

Initiation of Skilled Rehabilitation/Habilitation Care

Due to the complex nature of an individual's diagnosis, complexities and complications, and limitations inherent with using standardized measures of change, all pertinent and applicable clinical information submitted, documenting an individual's problem and severity, will be considered as part of the review process.

The initiation of an episode of speech language pathology services for skilled habilitation/rehabilitation will be considered medically necessary when current information is submitted to demonstrate that ALL of the following criteria have been met. Failure to meet ANY of these criteria would indicate skilled care is not necessary:

1. The skills of a qualified provider are required to address a documented significant specific functional deficit in essential daily tasks (ADL/IADLs) that require care of such complexity and sophistication that only a qualified provider can address them safely. Merely providing services by a qualified provider do not, alone, make them skilled or necessary. The services must meet the required level of complexity for skilled care as defined in **Definitions (SLP 1.1)** .
 - a) The functional deficit is quantified in a standardized and valid manner at least annually (additional detail about common standard measures are provided in **[Clinical Consideration (SLP-2.0)]** and is new or has changed or declined from their previous level of functioning requiring skilled care. Standardized assessments are administered in the individual's primary and secondary language (if applicable). They should demonstrate 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.
 - b) The skilled care requested is NOT specifically related to reading, writing, studying and spelling in the absence of significant functional deficit in spoken language. Standardized testing must show a functional deficit in receptive and/or expressive language given comprehensive spoken language testing. The functional deficit(s) must be quantified as per criteria in 1a above.
 - c) The skilled care requested is NOT specifically related to continued participation in elective, recreational, or hobby activities; or would NOT be considered preventive care as per the definition in **Definitions (SLP 1.1)** .

2. The recommended plan of care is reasonable and generally accepted as within the standard of practice of the provider to be effective for the individual's documented problems. The care is not primarily passive or routine.
 - a) Central auditory processing disorders and aural rehabilitation require a formal diagnosis by an audiologist.
3. There is an expectation that the individual will respond appropriately and favorably to the plan of care in a reasonable and generally predictable period of time resulting in discharge to an independent program (with or without help from caregivers)
4. There is an expectation that the individual will be actively compliant with all aspects of the recommended plan of care, including regular participation in their home program.

Initiation of Skilled Maintenance Care

When covered by the health plan, the initiation of an episode of speech language pathology skilled services will be considered medically necessary to create a maintenance program when current information is submitted that demonstrates ALL of the following criteria have been met. Failure to meet ANY of this criteria would indicate skilled maintenance care is not necessary:

1. The skills of a qualified provider are required to establish or design a maintenance program to be carried out by the individual and their caregivers appropriate to their capacity and tolerance.
 - a) The individual's current functional status is no longer rapidly changing, but should be maintained to promote safety, current ability level or slow deterioration, but there has not yet been a reasonable opportunity to establish a program.
 - b) A customized program to maintain the individual's ability requires such complexity and sophistication that it can only be established by a qualified provider.
2. The recommended plan to establish the maintenance program is reasonable and generally accepted as within the standards of practice specific to the individual's condition [See **Definitions (SLP 1.1)**].
3. There is an expectation that the individual and or caregivers will follow through on their own with the established program and goals are appropriate in regards to maintaining a program versus goals for rehabilitation/habilitation.

Determination of dosage of skilled care

The frequency, duration and quantity of skilled care services are based on the severity of the objective clinical findings, complexities and complications, history and chronicity of the individual's conditions, anticipated or actual response to services, and an individual's level of independence. These findings will be considered in relation to what would be reasonable and generally acceptable practice to determine a dosage of care that allows for appropriate skilled services but also for appropriate time between visits for the individual to practice their program. Dosage of skilled care should be specific to

an individual's situation and should be adjusted appropriately throughout an episode of care.

Continuation of Skilled Care

Consideration of the need for continued skilled care beyond the initial request for care of an episode involves determining that an individual is responding appropriately to the type of care or program provided, yet still requires additional skill from a provider.

It is generally expected that as an individual responds appropriately to care over a reasonable timeframe, their need for continued care should decrease and their ability to self-manage (or maintain) should increase. Similarly, it is generally expected that for individuals with conditions that result in a functional plateau or even progressive decline, their need for continued care should decrease as they learn to self-manage and modify daily tasks. Initial services should have allowed time for the individual and caregivers to be educated on a home program and self-care strategies. This decrease in need should result in modification to dosage of care to allow time between visits for the individual to progress with their home program resulting in a discharge from skilled care as the individual approaches independence in ADLs/IADLs or in their appropriate maintenance program. Failure to meet ANY of the criteria for continued care would indicate skilled care is no longer necessary, or not necessary as requested.

In addition to the criteria for initiation of skilled care, requests for continuation of treatment (those beyond the initial request) must also include current information that demonstrates that all of the following are MET:

1. An individual is responding appropriately to their plan of care or established program [Refer to **Appropriate Response to Skilled Care** in **Definitions (SLP 1.1)**]

-OR-

There is a significant decline in the condition that has not previously been addressed in this episode of care (exacerbation of condition, etc.) that has resulted in a statistically meaningful deficit in ADLs/IADLs and that requires a change to the plan of care of such complexity and sophistication that only a qualified provider can address it, such as:

- a) There has been an exacerbation of symptoms despite adherence to a care plan, but the individual was otherwise responding appropriately.
 - b) Progression of symptoms has occurred despite adherence to a care plan and skilled care is needed to modify or alter the care plan to address changes.
 - c) There has been a significant complication that was not previously present [refer to complexities definition in **Complexities/Complications** in **Definitions (SLP 1.1)**]
2. The services provided continue to be at an appropriate skill level and are progressing
 - a) The services are not routine or repetitive and continue to be of such complexity and sophistication that only a qualified provider can provide them safely.

- b) The individual's maintenance program is no longer effective and they now require specific changes, modification or training of such complexity that they can only be addressed by a qualified provider. The general lack of a competent caregiver, the unwillingness or inability of the individual to arrange for a caregiver, or the unwillingness of the individual and/or a caregiver to carry out a care program does not apply.
- 3. The individual continues to be compliant with the recommended plan of care or program and is consistently making an effort to participate in all aspects of their care. This would include adherence to their home program, attendance to and being active in scheduled care, utilizing appropriate caregivers and assistive devices, and modifying activities to avoid continued harm or exacerbations.

Duplication of Services

An individual's specific problem can improve with skilled care from one provider and one treatment plan. Duplicative care [**Duplicative Therapy Services in Definitions (SLP 1.1)**] is not considered medically necessary.

Discontinuation of Skilled Care

Requests for speech language pathology services that do not meet the criteria for initiation or continuation of skilled care would be considered not medically necessary.

Rules, Coverage, Benefits, and Mandates (SLP-1.3)

SLP.1.3.A

v1.0.2022

Specific rules pertinent to submitting a request for skilled care will vary by health plan. Rules, policies, and member coverage benefits pertaining to each health plan may take precedence over eviCore's medical necessity criteria. Applicable federal or state health mandates may also take precedence over eviCore's medical necessity criteria [i.e. Early and Periodic Screening Diagnostic and Treatment Mandate (EPSDT), state autism mandates]. Requests for skilled care where these policies and mandates apply will be processed according to that policy and may not require a review for medical necessity according to eviCore's medical necessity guidelines.

For Medicare programs, the coverage policies of the Centers for Medicare and Medicaid Services (CMS) take precedence over eviCore's medical necessity criteria. These may vary based on the Medicare Administrative Contractor (MAC) of the jurisdiction where the individual has a health policy. In the absence of an applicable Local Coverage Determination, Local Coverage Article, or National Coverage Determination, eviCore policies will apply for the determination of medical necessity for skilled care services. This also applies to skilled services being billed as "incident to" by physician providers.⁷

eviCore takes into consideration any applicable benefits, rules, policies and mandates when processing requests for skilled care. The final determination of reimbursement for SLP services is the decision of the health plan and is based on the individual's policy rules, benefit entitlement structure, or any mandates that apply. Providers and individuals should reference health plan policies and rules, federal or state health mandates, and MAC policy for any concerns about covered and non-covered skilled care services.

Clinical Considerations (SLP-2.0)

Clinical Considerations (SLP-2.0)

SLP.2.0.A

v1.0.2022

To demonstrate a need for skilled care or planning, the previously established criteria in **Criteria for the Provision of Speech Language Pathology (SLP) Services (SLP 1.0)** must be met. However, there are many variations in conditions, diagnoses and limitations as to why an individual could seek skilled care. There are different areas of discipline, concentration or specialty within skilled care that may cater to these variations. Effective treatment options vary from case to case. There are a variety of ways an individual can improve or respond to their plan of care. The following section and its subsections serve to provide supplementary context to assist in understanding what constitutes reasonable care and an appropriate response to care within common clinical areas while keeping in mind this variation and evidence-based recommendations.

Individuals will present with conditions along spectrums of severity and chronicity. As an individual responds appropriately to skilled care the severity of their problem or need is expected to improve. Mild problems may require little to no skilled care. More severe problems may need more regular care. How long a condition has been present, ranging from acute, sub-acute, to chronic, may also have some bearing on the amount of care required. Severity and chronicity are part of the clinical context that is considered on an individual case basis.

The effect that complexities and complications [see **Definitions (SLP 1.1)**] may have on the individual's ability to respond appropriately to the skilled care provided will be considered on a case-by-case basis. It is the responsibility of the provider to submit information regarding any complexities or complications to be considered and how these impact the individual's functional levels and their response to care. The mere presence of a complexity or complication alone does not meet the inclusion criteria established in **Criteria to Determine Medical Necessity for Skilled Speech Language Pathology Services (SLP-1.2)**.

Determining an individual has a limitation that requires skilled care or planning is essential to meeting the criteria established in **Criteria to Determine Medical Necessity for Skilled Speech Language Pathology Services (SLP-1.2)**.

Furthermore, having an appropriate and significant response to skilled care is required to show a continued need for care. Standardized and valid functional outcomes, performance based measures, and condition specific measures are recommended to be used to quantify levels of deficit and appropriate response to care [**Definitions (SLP 1.1)**] being provided regardless of condition or diagnosis. Standardized measures and/or objective findings should be used throughout an episode of care to track progress. Measures used should reflect the condition and goals of the individual. There are many valid and standard measures available for a variety of functional deficits, conditions, diagnoses, ability levels, risk levels and severity levels. There are many comprehensive online resources to help educate providers on appropriate tests. It is the skilled provider's responsibility to choose appropriate measures specific to the needs and goals of the individual under their care. It is the provider's responsibility to

know how to appropriately administer, score, track and document the standard measures they have chosen. In rare instances where standard measures are not appropriate, it is the provider's responsibility to document these reasons and to provide alternative quantifiable measures of progress. (For the convenience of the provider when submitting clinical information for review, eviCore has clinical worksheets available with some common standard measures at www.evicore.com. Not all possible measures are listed.)

It is acknowledged that standard measures are not free from some levels of subjectivity, bias and error. Clinical information beyond standard scores can help inform on the individual's complete situation and problems. All efforts are made during the review process to consider submitted scores within the entire clinical context of the individual and their situation. All pertinent and applicable clinical information documenting an individual's progress is considered during the review process.

[Definitions (SLP 1.1)].

eviCore takes into account current scientific evidence-based recommendations when evaluating a request for an appropriate need for skilled care. Generally accepted standards of practice **[Definitions (SLP 1.1)]** are evidence based and help define what is considered to be reasonable care. Episodes of skilled care and the treatments provided can vary for similar diagnoses and/or patient groups yet still result in an appropriate clinical response. Therefore, the need for skilled care is evaluated based more so on the individual's presentation, response to the plan of care, and their ability for self-care than on specific treatments or techniques. Even though trial research may show one particular treatment or technique is effective for a specific problem, that does not automatically mean an episode of skilled care is required or should be ongoing. Care that deviates significantly from what is regarded as generally accepted can fail to meet the criteria to establish medical need.

Cognitive Communication Disorders Considerations (SLP-2.1)

SLP.2.1.A

v1.0.2022

Cognitive communication disorders are typically characterized by any aspect of communication that disrupts cognitive processes. Some cognitive processes that can be disrupted may include, but are not limited to, memory, attention, problem solving, reasoning, planning, self-monitoring/self-advocacy, executive function, and time management. Problems in these areas may be verbal or nonverbal. Cognitive communication disorders can impact a person's ability to safely and efficiently perform activities of daily living. Common etiologies of cognitive communication disorders include but are not limited to dementia, concussion, brain tumors, stroke and traumatic brain injury. Individuals with cognitive communication disorders can present with varied complexities and complications during an episode of care (**Definitions (SLP 1.1)**) which will be considered along with all clinical information.

Consideration of the need for the skilled care of cognitive communication disorders necessitates determining that an individual presents with a specific problem that limits their functional communication ability while performing ADLs/IADLs. Baseline functional cognition should be assessed at the initiation of an episode of care and regularly throughout an episode. Standard function and performance-based measures are recommended for baseline and continued tracking of an individual's ability (**Clinical Considerations (SLP-2.0)**). Literature indicates clinicians should use standardized, valid assessment tools to evaluate impairments, functional activity limitations, participation and environmental restrictions, and mood and behavioral changes. Cognitive impairments should be assessed by healthcare professionals with expertise in neurocognitive functioning.⁸

An individual may be seeking skilled care for a cognitive communication disorder secondary to a sentinel event such as a stroke or traumatic brain injury. Individuals may develop a gradual decline in cognition due to chronic neurological disorders such as Parkinson's disease or Multiple Sclerosis. An individual's needs and treatments may vary significantly from one to another.⁹ An individual's need for speech related skilled care will be assessed based on all clinical information presented that meet the indications for care (**Criteria to Determine Medical Necessity for Skilled Speech Language Pathology Services (SLP-1.2)**) in consideration of associated complexities and complications.

Published clinical practice guidelines for cognitive communication disorders recommend that interventions to address cognitive dysfunction in individuals should be: tailored to daily communication needs, promote generalization and maintenance with self-management, metacognitive skills, anticipatory awareness, and be practiced in natural environments and engagement with the patient's network in a variety of settings. Interventions should identify and incorporate specific occupational or school tasks into treatment with the goal of returning to pre-morbid condition when appropriate through self-efficacy and independent management of compensatory systems. Goals

should be patient-centered aimed at mastering specific activities ensure that the patient has requisite motivation and attention skills to participate prior to initiating treatment.^{9,10} Goals should be set in collaboration with the patient and family/caregiver and should be well-defined, specific and challenging.¹¹

When addressing pediatric individuals, recommended treatments should be meaningful, engaging, progressively adapted, age-appropriate, task-specific, and goal-oriented for the child and family. Interventions may target educational rehabilitation, classroom function and safety, developmentally relevant play, and leisure skills appropriate for their home, school, and/or community environments.⁹

Hearing and Auditory Processing Disorders Considerations (SLP-2.2)

SLP.2.2.A

v1.0.2022

Hearing and auditory processing disorders are typically characterized by an inability or decreased ability to perceive, discriminate, and integrate speech and non-speech sounds, resulting in functional communication deficits during activities of daily living. Generalized hearing loss can impact an individual's ability to safely function within their environment, as well as ability to understand speech and discourse. Hearing and auditory processing disorders may present in combination with congenital defects of the auditory mechanism, or may result from injury, trauma, neurological conditions or presbycusis. A licensed audiological evaluation is required for the differential diagnosis of hearing and/or auditory processing disorders, as well as the need for appropriate amplification, prior to referral for SLP intervention. Individuals with hearing and/or auditory processing deficits can present with varied complexities and complications during an episode of care [**Definitions (SLP 1.1)**] which will be considered along with all clinical information.

Consideration for the need for skilled care for a hearing and/or auditory processing deficit necessitates that an individual presents with a specific problem that significantly limits their functional communication ability during ADLs/IADLs. Baseline level of functioning should be assessed at the initiation of an episode of care and regularly throughout an episode. Standard function and performance based outcomes are recommended for baseline and continued tracking of an individual's communication ability [**Clinical Considerations (SLP-2.0)**]. It is expected that an individual will respond appropriately to skilled care in an appropriate and predictable amount of time.

An individual may be seeking skilled care for a hearing and/or auditory processing problem impacting acquisition of communication skills, or to improve hearing or processing due to an injury, surgery, neurological event or congenital abnormality. Assistive hearing/listening devices and/or environmental modifications may be appropriate in conjunction with skilled therapy. Early detection and intervention for these disorders is recommended for speech and language acquisition and functional communication abilities across the lifespan. There is a growing body of research suggesting that therapists should also be aware that auditory processing deficits may result from age-related changes in the auditory system¹². The approaches, devices and strategies will vary and each individual will respond differently. The need for skilled care will be assessed based on all clinical information presented that meets the indications for care [**Criteria to Determine Medical Necessity for Skilled Speech Language Pathology Services (SLP-1.2)**] in consideration of associated complexities and complications.

Published clinical practice guidelines for hearing and auditory processing disorders recommend clinicians develop a management plan based on assessment findings unique to the individual and family that is focused on maximizing communication participation and independence.^{12,13} The treatment model must consider the specific

clinical, social, educational, vocational, and community needs in order to promote autonomy. Speech-language therapy is recommended for those with processing difficulties impacting attention, memory and organization of auditory information. Incorporating evidence-based auditory training is recommended. Language-based treatment should involve the use of compensatory metacognitive and metalinguistic strategies, communication repair strategies, and educating caregivers and educators, as well as targeting classroom/environmental factors such as reducing distance and background noise.^{12,13} Auditory rehabilitation and processing treatments may include use of assistive listening devices or other technologies. Approaches may target listening, discrimination, identification and localization of sounds in noise as well as functional language skills, including vocabulary, grammar, and conversation. Educating the individual to use visual aids and repetition to aid in communication exchanges is recommended.¹⁴

Language Disorders Considerations (SLP-2.3)

SLP.2.3.A

v1.0.2022

Language disorders are typically characterized by impairment in the acquisition and/or use of language for listening, speaking, reading, writing, thinking, reasoning, and/or engaging in social communication.¹⁴ Language disorders can be congenital or acquired. Individuals with language impairment may demonstrate deficits in understanding or expression in any of the domains of language including phonology, morphology, syntax, semantics, and/or pragmatics/social communication. A language disorder may be diagnosed in the absence of any other medical or mental condition; however, a spoken language disorder in children will often accompany other conditions such as autism, hearing loss, intellectual disability, or global delay.¹⁵ In adults, acquired language disorders, or aphasia, often result from stroke, head injury, brain tumors, and other infectious, toxic, metabolic, or degenerative diseases.¹⁶ Additionally, individuals who demonstrate language impairments may have difficulty in areas of reading and writing. Language impairments can range from very mild to severe. The level of deficit may be related to whether the impairment includes receptive and expressive language, expressive language alone, and/or comorbid mental or medical conditions.¹⁷

It is important to note that bilingualism does not cause or in any way contribute to a language disorder. A bilingual individual may present with a language impairment, but it is essential to differentiate a language difference from a language disorder. If a language impairment is present, it will be found in both/all the languages the individual understands and uses.¹⁸

Consideration of the need for skilled intervention for language disorders necessitates determining that an individual presents with a deficit that limits ability to understand and/or use language effectively to communicate, thereby impairing the ability to participate in social, educational, and vocational activities.¹⁴ A comprehensive assessment, including standardized receptive/expressive language testing, is essential for diagnosing a language disorder [**Clinical Considerations (SLP-2.0)**]. Other objective assessment procedures including, language sample, dynamic measures, parent/caregiver report/questionnaires, examination of reading and writing, and systematic observation are also considered when diagnosing language impairments and when determining baseline skills.^{15,19} Treatment is usually supported when an individual performs at least one standard deviation below the mean on standardized testing or demonstrates significant deficits through objective skills assessments.²⁰ Additional information including level of impairment and comorbid conditions should also be considered when determining need relative to skilled intervention. When evaluating a bilingual/multilingual individual, assessment must be conducted in all languages spoken.¹⁸

There is an established body of guidelines and reviews that provide recommendations for reasonable and effective care for language disorders. These recommendations suggest that early diagnosis and treatment support a higher prevalence of positive

outcomes. Research findings support a combination of explicit and implicit treatment. Explicit care often consists of individual or group therapy sessions with the clinician, while implicit care typically involves training parents/caregivers to provide care in the home.²¹ Parent-implemented interventions have been found to be very effective in supporting improvements in language for children given the consistent access parents have on a daily basis.²²⁻²⁵ For adults, services should also include healthcare providers and family members with caregiver involvement in the rehabilitation process.^{9,26} SLPs should implement evidence-based treatment approaches which include: language stimulation, vocabulary intervention, scaffolding, prompting, cloze, use of visual supports, errorless teaching, semantic/syntactic programs (such as semantic feature analysis and concept mapping), word finding, literacy intervention, high level language skills (such as inferencing), functional communication (including social skills training), melodic intonation therapy, and/or augmentative and alternative communication (such as use of sign language, communication boards, picture exchange, and speech-generating devices).^{17,26,27} When treating individuals with aphasia and/or older children with persistent language disorder, treatment may involve compensatory training and/or introduction to augmentative/alternative methods of communication.^{26,28,29}

It is important to note that when treating language impairment in multilingual individuals, treatment should occur in all languages by a bilingual/multilingual speech-language pathologist or with a trained interpreter.^{18,28} The goal should be to achieve, regain, or maintain bilingualism/multilingualism. The primary language (L1) should never be abandoned in order to focus on an additional language.¹⁸ For aphasic bilingual individuals it is important to note that parallel recovery occurs in most cases; however in some cases there may be selective recovery in that one language remains impaired while the other is recovered.

Repetition and practice are critical and care may become episodic with a shift toward the targeting of functional skills to meet a specific need. Skilled care for language disorders should empower individuals and their caregivers to become independent in carryover of skills taught and parents/caregivers should be educated on the reality of the individual's language disorder, and goals should be reasonable and realistic.^{29,30}

Speech Production Disorders

Considerations (SLP-2.4)

SLP.2.4.A

v1.0.2022

Speech production disorders refers to any combination of difficulty with speech production, including problems with making sounds and sound patterns.¹⁴ Characteristics may include difficulty with tongue/lip posture or movement and speech sound distortions. Disruptions in speech motor planning and execution can result in abnormalities of the strength, range of motion, tone, or precision of movements required for appropriate control of the speech subsystems (i.e., articulatory, respiratory, phonatory, resonatory, and fluency). These abnormalities may affect speech sound production (e.g., articulation, apraxia, dysarthria), resonance (e.g., hypernasality, hyponasality), voice (e.g., phonation quality, pitch, loudness, and respiration), and fluency (e.g., stuttering).¹⁴ Speech production disorders may lead to deficits in functional daily communication and can present in combination with developmental and neurological conditions, prematurity, genetic syndromes, trauma, cancer, structural anomalies, etc. Individuals with speech production disorders can present with varied complexities and complications during an episode of care, which will be considered along with all clinical information during a review for need of skilled care.

Consideration of the need for skilled care for a speech production disorder necessitates determining that an individual presents with a specific problem that significantly limits their ability to communicate through speech. Objective assessments including standardized testing, speech samples, parent/caregiver questionnaires and examination of oral motor structure and function should be performed initially and regularly throughout an episode of care. Objective acoustic data can validate the auditory and visual perceptions of the skilled care professionals and the patient self-reports. There is also evidence that selected acoustic, laryngeal imaging–based, auditory–perceptual, functional, and aerodynamic measures may be used as effective components in a clinical voice evaluation. Instrumentation (i.e. laryngeal function or velopharyngeal function studies) may also be considered when determining baseline skills. Standardized, valid, functional and performance based measures are recommended to be used throughout an episode of care to demonstrate levels of a deficit and that an individual is responding appropriately to the care provided [**Clinical Consideration (SLP-2.0)**]. In special situations where these measures cannot be performed, clinical observation and objective information may be provided to demonstrate the level of functional deficit. Additional clinical information specific to speech concerns will be considered along with standard scores. It is expected that an individual will respond appropriately to skilled care in a generally predicted timeframe.³¹

An established body of peer-reviewed guidelines and systematic reviews provide recommendations on reasonable and effective care for speech production disorders. These recommendations support the use of sensory-motor treatments as effective for the remediation of persistent speech errors. Speech therapy that encourages intense practice of misarticulated speech sounds or correct movement patterns of phonological

structures has been shown to be effective. Outcomes may be maximized by employing procedures that are specialized for each subtype of speech sound disorders.²⁰

The current literature supports the importance of speech therapy in individuals with dysarthria and dysphonia.²⁰ It is also recommended that the core of vocal rehabilitation includes both indirect and direct approaches. There is high level evidence to support recommendations for the use of motor learning principles in skilled care for childhood apraxia of speech; including recommendations that high frequency of sessions may be supported at times. The current literature recommends early intervention skilled care for children who demonstrate fluency disorders (i.e stuttering) during the pre-school years.^{33,34} Early intervention for fluency should help not only improve speech, but activity and participation of the young individual.³⁴ It is recommended that only a few treatment sessions for sound production in individuals with acquired apraxia/aphasia are needed to achieve initial positive changes. Mastery of articulation occurring within 12-14 sessions generally occurs for the majority of individuals.³⁵ The use of attention to effort methods have also been recommended as an option to improve speech and communication, especially when the dysarthria may be related to Parkinsonism or similar conditions.³⁶

It is recommended that individuals receiving skilled care for speech production disorders be provided with progressive home and self-care programs so they can regularly work on the repetitive aspects of their care plan on their own or with a caregiver. Skilled care should empower an individual and their caregiver to become independent once a home program is established. For children, one way to achieve greater intensity of treatment is to include a home program that is implemented by the child's parents.²⁰

Swallowing and Feeding Disorders Considerations (SLP-2.5)

SLP.2.5.A

v1.0.2022

Swallowing and feeding disorders are typically characterized by impaired oral intake that is not age appropriate or safe. Swallowing and feeding disorders can also present in combination with developmental and neurological conditions, prematurity and low birth weight, genetic syndromes, trauma, cancer, oral structural abnormalities, etc. The severity of a swallowing or feeding disorder is related to nutritional/ growth and safety concerns and the need for supplemental/ enteral nutrition.

Consideration of the need for skilled care for a swallowing and/or feeding disorder necessitates determining that an individual presents with a specific problem that significantly limits nutritional intake and/or is a safety concern. Baseline feeding skills should be assessed at the initiation of an episode of care. Standardized, valid, functional and performance based measures are recommended to be used throughout an episode of care to demonstrate levels of feeding deficit and appropriate response to care being provided [**Clinical Considerations (SLP-2.0)**]. Additional information specific to swallowing and feeding concerns will be considered along with standard scores. This may include food/drink types, textures, quantities; oral motor skills; growth/nutrition concerns of medical professionals; functional imaging assessments (such as fluoroscopic swallowing studies); supplemental nutrition; caregiver participation; and any additional complexities of the individual's situation. It is expected that an individual will respond appropriately to skilled care in a predicted amount of time.

An established body of published high-level guidelines and reviews provide recommendations on reasonable care for swallowing and feeding disorders. These recommendations suggest that skilled care for swallowing and feeding should focus on treatment strategies that are task-specific. Skilled care should primarily be active in nature with transition to a home program as soon as possible.³⁷⁻³⁹ Individuals and caregivers can learn a home program and repeat their program between direct skilled care sessions. As the individual's needs change, skilled care may become episodic to address specific needs. It is also recommended that individuals and their caregivers be educated on the reality of their feeding disorder and be given realistic goals and expectations.

For pre-term infants, it is recommended to use non-nutritive suck and oral motor stimulation to improve suck-swallow-breathe coordination, latching, and suction strength and endurance for improved oral feeding. Oral stimulation and oral support increases volume intake, feeding efficiency, and weight gain while decreasing oral feed time, transition time to full oral feeding, and hospital stay length.⁴⁰⁻⁴³ Neurostimulation therapies, such as transcranial magnetic stimulation can be effective for post-stroke dysphagia.⁴⁴ Positioning modifications can improve swallowing.³⁹ It is recommended that nutritional concerns be addressed through a combination of treatments that address food intake such as task oriented training, behavioral interventions, peer

modeling, sensory activities, and parent/caregiver education.^{37,42,45-47} It has been recommended that individuals weaning from tube feeding can benefit from hunger provocation and behavioral programs.⁴⁹ Skilled care for swallowing and feeding should empower an individual and their caregiver to become independent once a home program is established.

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.⁴⁸⁻⁵⁰

References (SLP)

References

v1.0.2022

1. Centers for Medicare and Medicaid Services. *Medicare Benefit Policy Manual Publication* 100-02, Chapter 15 – Covered medical and other health services rev. 10880, 08-06-21. Section 220.2. Baltimore, MD.
2. National Association of Insurance Commissioners. *Glossary of Health Insurance and Medical Terms*.
https://content.naic.org/sites/default/files/inline-files/committees_b_consumer_information_ppaca_glossary.pdf Accessed 5/13/22
3. Centers for Medicare and Medicaid Services. *Preventative Services*.
<https://www.healthcare.gov/glossary/preventive-services/>. Accessed 1/31/2022. Department of Health and Human Services. Baltimore, MD.
4. American Occupational Therapy Association. (2020). *Occupational therapy practice framework: Domain and process* (4th ed.). American Journal of Occupational Therapy, 74(Suppl. 2), 7412410010. doi:10.5014/ajot.2020.74S2001.
5. World Health Organization. *How to use the ICF: A practical manual for using the International Classification of Functioning, Disability and Health (ICF)*. Exposure draft for comment. October 2013. Geneva: WHO.
6. Zadro J, O’Keeffe M, Maher C. Do physical therapists follow evidence-based guidelines when managing musculoskeletal conditions? Systematic review. *BMJ Open*. 2019;9:e032329. doi: 10.1136/bmjopen-2019-032329.
7. Centers for Medicare and Medicaid Services. *Medicare Coverage Determination Process*. <https://www.cms.gov/Medicare/Coverage/DeterminationProcess>. Page last modified 3/3/2022. Accessed 3/23/22.
8. General Standards for Neurological Care and Support. Healthcare Improvement Scotland. Edinburgh (United Kingdom): Healthcare Improvement Scotland. 2019; 1-44.
https://www.healthcareimprovementscotland.org/our_work/standards_and_guidelines/stnds/neurological_care_standards.aspx . Accessed 7/1/22.
9. Lindsay MP, Mountain A, Gubitz G, Dowlatsahi D, Casaubon L, and Smith EE. (eds.), on behalf of the Canadian Stroke Best Practices and Quality Advisory Committee. *Canadian Stroke Best Practice Recommendations Sixth Edition*, 2018; Toronto, Ontario Canada: Heart and Stroke Foundation.
<https://www.strokebestpractices.ca/> . Accessed 7/1/22.
10. American Speech-Language-Hearing Association. *Summary of the Clinical Practice Guideline: Cognitive rehabilitation for service members and veterans following mild to moderate traumatic brain injury clinical recommendations*. Defense and Veterans Brain Injury Center 2019. ASHA Evidence Maps.
<https://apps.asha.org/EvidenceMaps/Articles/ArticleSummary/dfd13009-31b6-4e78-b8c7-b6f91e0ccd6d>. Accessed 7/1/22.

11. Stroke Foundation (2022). *Clinical Guidelines for Stroke Management*. Melbourne Australia. <https://informme.org.au/Guidelines/Clinical-Guidelines-for-Stroke-Management>. Accessed 7/1/22.
12. College of Speech and Hearing Health Professionals of British Columbia. *Clinical Practice Guideline: Auditory Processing Disorder in Children and Adults*. Adopted 2019. Vancouver, Canada. <https://www.cshbc.ca/wp-content/uploads/2019/02/CSHBC-ACPG-01-Auditory-Processing-Disorders-in-Children-Adults-EN.pdf>. Accessed 7/1/22.
13. Keith WJ, Purdy SC, Baily MR, Kay FM. *New Zealand Guidelines on Auditory Processing Disorder*. New Zealand Audiological Society. <https://www.audiology.org.nz/>. Accessed 7/1/22.
14. American Speech-Language-Hearing Association. *Speech-Language Pathology Medical Review Guidelines*, 2015. <https://www.asha.org/practice/reimbursement/SLP-medical-review-guidelines/>. Accessed 7/1/22.
15. American Speech-Language-Hearing Association. *Clinical Topics: Spoken Language Disorders*. [https://www.asha.org/practice-portal/clinical-topics/spoken-language-disorders/guage Disorders/](https://www.asha.org/practice-portal/clinical-topics/spoken-language-disorders/guage%20Disorders/) Accessed 8/14/22.
16. Mattioli F. The clinical management and rehabilitation of post stroke aphasia in Italy: evidences from the literature and clinical experience. *Neurological Sciences*. 2019;40(7):1329-1334. doi:10.1007/s10072-019-03844-0
17. American Speech-Language-Hearing Association. *Clinical Topics: Late Language Emergence*. <https://www.asha.org/practice-portal/clinical-topics/late-language-emergence/> Accessed 8/14/22.
18. Pert S, Bradley B. Clinical Guidelines for Speech and Language Therapists: Bilingualism: working with bilingual clients/patient with speech, language and communication needs. *Royal College of Speech and Language Therapists*. https://www.rcslt.org/clinical_resources/bilingualism/bilingualism_overview. Accessed 8/14/22.
19. Koenig-Bruhin M, Kolonko B, At A et al. Aphasia following a stroke: recovery and recommendations for rehabilitation. *Swiss Archive for Neurology and Psychiatry*. 2013; 164(08):292-298. doi:10.4414/sanp.2013.00209
20. Damico JS, Mueller N, Ball MJ. *The Handbook of Language and Spech Disorders*, 2nd ed. Hoboken NJ, Wiley-Blackwell 2021. ISBN: 978-1-119-60696-3
21. Frizelle P, Tolonen AK, Tulip J et al. The Impact of Intervention Dose Form on Oral Language Outcomes for Children With Developmental Language Disorder. *Journal of Speech, Language, and Hearing Research*. 2021;64(8):3253-3288. doi:10.1044/2021_jslhr-20-00734.
22. Tosh R, Arnott W, Scarinci N. Parent-implemented home therapy programmes for speech and language: A systematic review. *International Journal of Language & Communication Disorders*. 2016;52(3):253-269. doi:10.1111/1460-6984.12280.

23. DeVeney SL, Hagaman JL, Bjornsen AL. Parent-implemented versus clinician-directed interventions for late-talking toddlers: A systematic review of the literature. *Communication Disorders Quarterly*. 2017;39(1):293-302. doi:10.1177/1525740117705116.
24. Parsons L, Cordier R, Munro N, Joosten A, Speyer R. A systematic review of pragmatic language interventions for children with autism spectrum disorder. *PLOS ONE*. 2017;12(4). doi:10.1371/journal.pone.0172242.
25. Lamego DT da C, Moreira MCN, Bastos OM. Guidelines for child health: language development on focus. *Ciência & Saúde Coletiva*. 2018;23(9):3095-3106. doi:10.1590/1413-81232018239.04892016.
26. Simmons-Mackie N, Worrall L, Murray LL, et al. The top ten: best practice recommendations for aphasia. *Aphasiology*. 2016;31(2):131-151. doi:10.1080/02687038.2016.1180662.
27. Morgan A, Mei C, Anderson V, Waugh M-C, Cahill L, & the TBI Guideline Expert Working Committee. *Clinical Practice Guideline for the Management of Communication and Swallowing Disorders following Paediatric Traumatic Brain Injury*. Melbourne: Murdoch Childrens Research Institute; 2017
28. American Speech-Language-Hearing Association. *Clinical Topics: Aphasia*. <https://www.asha.org/practice-portal/clinical-topics/aphasia/>. Accessed 8/14/22.
29. Law J, Dennis JA, Charlton JJV. Speech and language therapy interventions for children with primary speech and/or language disorders. *Cochrane Database of Systematic Reviews*. 2017. doi:10.1002/14651858.cd012490.
30. Speech Pathology Australia (2020). *Augmentative and Alternative Communication Clinical Guideline*. Melbourne: Speech Pathology Australia.
31. Baker J, Barnett C, Cavalli L, et al. Management of functional communication, swallowing, cough and related disorders: consensus recommendations for speech and language therapy. *J Neurol Neurosurg Psychiatry*. 2021;92(10):1112-1125. doi:10.1136/jnnp-2021-326767.
32. Chiaramonte R, Pavone P, Vecchio M. Speech rehabilitation in dysarthria after stroke: a systematic review of the studies. *Eur J Phys Rehabil Med*. 2020;56(5):547-562. doi:10.23736/S1973-9087.20.06185-7.
33. Sjögren L, Gonzalez Lindh M, Brodén M, et al. Oral Sensory-Motor Intervention for Children and Adolescents (3-18 Years) with Developmental or Early Acquired Speech Disorders Secondary to Congenital or Early-Acquired Disabilities: A Review of the Literature, 2000 to 2016. *Annals of Otology, Rhinology & Laryngology*. 2018;127(12):978-985. doi:10.1177/0003489418803963.
34. Brignell A, Krahe M, Downes M, Kefalianos E, Reilly S, Morgan A. Interventions for children and adolescents who stutter: A systematic review, meta-analysis, and evidence map. *J Fluency Disord*. 2021;70:105843. doi:10.1016/j.jfludis.2021.105843.
35. Wambaugh JL, Kallhoff L, Nessler C. Sound Production Treatment for Acquired Apraxia of Speech: An Examination of Dosage in Relation to Probe Performance.

- Am J Speech Lang Pathol.* 2021;30(1S):425-440. doi:10.1044/2020_AJSLP-19-00110.
36. Grimes D, Fitzpatrick M, Gordon J, et al. Canadian guideline for Parkinson disease. *CMAJ.* 2019;191(36):E989-E1004. doi:10.1503/cmaj.181504.
 37. Cahill SM, Beisbeir S. Practice Guidelines—Occupational therapy practice guidelines for children and youth ages 5–21 years. *American Journal of Occupational Therapy.* 2020; 74, 7404397010.
 38. Frolok CG, Kingsley KL. Practice Guidelines—Occupational therapy practice guidelines for early childhood: Birth–5 years. *American Journal of Occupational Therapy.* 2020; 74, 7403397010.
 39. Morgan C, Fetters L, Adde L et al. Early intervention for children aged 0 to 2 years with or at high risk of cerebral palsy International clinical practice guideline based on systematic reviews. *JAMA Pediatrics.* 2021;175(8):846-858. doi:10.1001/jamapediatrics.2021.0878.
 40. Chen D, Yang Z, Chen C, Wang P. Effect of oral motor intervention on oral feeding in preterm infants: A systematic review and meta-analysis. *American Journal of Speech-Language Pathology.* 2021 Sep 23;30(5):2318-28.
 41. Rodriguez Gonzalez P, Perez-Cabezas V, Chamorro-Moriana G, Ruiz Molinero C, Vazquez-Casares AM, Gonzalez-Medina G. Effectiveness of Oral Sensory-Motor Stimulation in Premature Infants in the Neonatal Intensive Care Unit (NICU) Systematic Review. *Children.* 2021; 8(9):758. <https://doi.org/10.3390/children8090758>.
 42. Gronski M, Doherty M. Interventions within the scope of occupational therapy practice to improve activities of daily living, rest, and sleep for children ages 0–5 years and their families: A systematic review. *American Journal of Occupational Therapy.* 2020 Mar 1;74(2):7402180010p1-33.
 43. Calk P. Best Practices for Oral Motor Stimulation to Improve Oral Feeding in Preterm Infants: A Systematic Review. *Ann Physiother Occup Ther.* 2019, 2(4): 000143.
 44. Chiang CF, Lin MT, Hsiao MY, Yeh YC, Liang YC, Wang TG. Comparative efficacy of noninvasive neurostimulation therapies for acute and subacute poststroke dysphagia: a systematic review and network meta-analysis. *Archives of Physical Medicine and Rehabilitation.* 2019 Apr 1;100(4):739-50.
 45. Clark GF, Kingsley KL. Occupational therapy practice guidelines for early childhood: Birth–5 years. *American Journal of Occupational Therapy.* 2020 May 1;74(3):7403397010p1-42.
 46. Malzacher A, Slocum S, Ausderau K. Dietary Intake Outcomes of Feeding Interventions for Children With Autism Spectrum Disorder (ASD)—A Systematic Review. *American Journal of Occupational Therapy.* 2020 Aug 1;74(4_Supplement_1):7411515342p1-.

47. Diaz J, Cosbey J. Supporting Parents' Occupations: A Systematic Review of Feeding Interventions for Children With Autism Spectrum Disorder. *American Journal of Occupational Therapy*. 2017 Jul 1;71(4_Supplement_1):7111520292p1-.
48. Zwaigenbaum L, Bauman M, Choueiri R, et al. Early intervention for children with autism spectrum disorder under 3 years of age: recommendations for practice and research. *Pediatrics*. 2015;136(1)60-81.
https://pediatrics.aappublications.org/content/pediatrics/136/Supplement_1/S60.full.pdf. Accessed July 21, 2020.
49. Michaud HN, Duchesene L. Aural rehabilitation for older adults with hearing loss: Impacts on quality of life - A systematic review of randomized controlled trials. *J Am Acad Audiol*. 2017; 28(07). 596-609. doi: 10.3766/jaaa.15090.
50. Barker F. Auditory rehabilitation programs for adults-Are they effective? *J Clin Outcomes Manag*. 2014: 21(12).