AAC Evaluation for a SGD

Date of Evaluation:
Date of Report:

Client Information

Name:	Medicaid ID #:
Address:	Medicare ID #:
Phone:	Insurance Policy #:
Place of Residence: Home	Licensed SLP:
Date of Birth:	Medical Diagnosis: Amyotrophic Lateral Sclerosis
Age: 62	Medical Diagnosis Onset:
Gender: Male	Speech Diagnosis: Dysarthria
Physician Referral:	Speech Diagnosis Onset:

Background Information

Introduction

XXXX is a 60 year old male diagnosed with ALS on DATE. XXXX is a retired paramedic/firefighter, and is married with one daughter. He is very social with family and friends, and has an excellent support system.

Summary of XXXX 's pertinent medical history, speech language skills, speech intelligibility and current communication system:

XXXX was diagnosed on DATE with definitive ALS at Mayo Clinic, following acute onset of slurred speech and neuro workup that was negative for CVA. XXXX was first seen at OhioHealth ALS clinic on DATE and at that time speech was slow but judged to be 95% intelligible to an unfamiliar listener. XXXX was introduced to an iPAD tablet and text-to-speech app to use as supplemental communication during times of fatigue. XXXX was able to use this successfully as his UE (Upper Extremity) strength was functional. By July, XXXX’s speech was somewhat more dysarthric with an intelligibility rating of 80%, however XXXX continued to use the iPAD tablet as needed with success. XXXX was educated on SGDs (Speech Generating Devices) and need for evaluation at that time, although he felt it was not yet needed. In September, this therapist received an email from XXXX’s spouse stating interest in looking at an SGD with eye gaze as UE was now much weaker and XXXX was having difficulty typing on the iPAD. By October, this patient’s speech had significantly declined, with an intelligibility rating of 10-20% to an unfamiliar listener. Cognition remains within functional limits. At present, XXXX is unable to use his iPAD tablet or hold a pen/pencil for writing effectively due to UE weakness, and his speech is severely dysarthric.

Speech intelligibility in spontaneous communication is judged to be 10-20%% intelligible to the unfamiliar listener.

XXXX 's condition is Acute and Progressive and independent communication is expected to decline with disease progression. Therefore, it is anticipated that XXXX 's natural speech will not be sufficient to meet daily communication needs for the client's lifespan. The prognosis for speech production to meet XXXX 's communication needs is poor.

Given the severity of the communication impairment as described above, XXXX 's speech does not meet his daily communication needs.

Language Skills and Abilities

Speech and language abilities have been determined by:

- informal assessment
- observation

Summary of the diagnostic assessments used, test results:

XXXX’s speech language skills are WNL (Within Normal Limits) as evidenced by prior verbal communication.

XXXX presents with severe impairment in language functioning due to his dysarthria, and he possesses the following language skills and abilities:

Receptive Language

XXXX demonstrates the following receptive language skills:

- attends when spoken to
- appears to recognize name
- understands references to items that are out of sight
- understands frequently used words
- understands one or two part directions
- understands simple questions
- understands virtually everything that is said

Individuals familiar with XXXX report he understands all of what is said to him.

Additional receptive language information:

Receptive language WNL as evidenced by prior conversational skills, his ability to respond to questions via gestural (head nods), and minimal verbalizations he currently has still intact.

Expressive Language

XXXX communicates expressively using the following skills:

- points
- gestures
- vocalizes/approximates words (2 word utterances)

When XXXX 's receptive and expressive language skills are compared, he appears to understand substantially more than he is able to communicate, indicating the need to focus on expanding his ability to communicate. His previous verbal communication consisted of appropriate and varied vocabulary, syntax and grammar detail.

Additional expressive language information:

This patient’s speech is severely dysarthric secondary to ALS, and speech intelligibility is judged to be approximately 10-20% to unfamiliar listener.

Pragmatics

XXXX demonstrates the following pragmatic language skills:

- Uses language for these purposes
    - greetings
    - feelings
    - informing
    - requesting
    - protesting

XXXX follows these basic conversation rules:

- takes turns
- stays on topic
- makes eye contact

Although he uses non-symbolic strategies such as facial expressions for a few of the different purposes of communication, XXXX is unable to communicate this information using language.

Reading

Educational status: college degree.

XXXX 's functional reading skill is: paragraphs

Additional reading comprehension information:

This patient’s reading skills are WNL. He loves to read however unable to hold a book at present due to UE weakness.

Writing

XXXX is unable to produce written language.

An SGD must use this method of message production to enable XXXX to generate written language:

- words

Language Skills and Abilities Summary

Additional details that support XXXX 's ability to use an SGD for functional communication in activities of daily living (ADL's):

XXXX has minimal means of effective communication at present. He needs access to an SGD to effectively communicate with caregivers, family and friends to express his wants, needs, thoughts on a daily basis. The patient’s literacy skills are WNL and he prefers to construct messages by spelling.

XXXX 's linguistic performance with the SGD's presented during the evaluation indicates he has the necessary language skills to communicate using an SGD.

Cognitive Abilities

XXXX demonstrates no impairment in cognitive functioning.

Length of assessment and/or training trials: one hour.

Cognitive Abilities

XXXX demonstrates the following cognitive abilities:

- Ability to learn new tasks, including device operation
- Attends to the display
- Attends to tasks
- Remembers locations of symbols
- Recognizes the device can be used to communicate needs and wants
- Locates items on a page

Additional details that support XXXX 's cognitive ability to use or learn to use an SGD for functional communication in activities of daily living:

The patient’s attention, memory, and problem solving skills observed during the evaluation appeared functional for learning and use of an SGD successfully. By the end of the evaluation session the patient was independently navigating the device and constructing short phrases using eye gaze.

XXXX demonstrates the necessary cognitive abilities (attention, memory and problem solving skills) to learn to use an SGD to achieve functional communication goals.

Physical Abilities

XXXX was able to successfully access SGDs presented at the evaluation with the following selection technique(s): Direct Selection

Direct Selection Input

- eye gaze

The SGD will be used by XXXX in these positions: sitting, lying in bed. Positioning will affect access of the SGD.

Mobility

XXXX is non-ambulatory and uses power wheelchair for mobility.

A wheelchair mounting system will be required.

Wheelchair

Make: Permobil

Model: C300

XXXX will transport the SGD by wheelchair mount.

The SGD must not exceed 6 lbs. in weight.

The physical size of the SGD must not exceed these dimensions. (HxWxD) 13x9x2.

A carry case is not required to transport the SGD.

Additional mobility information:

Given the above modifications/considerations, XXXX possesses the physical abilities to effectively use an SGD with the required accessories to communicate.

Hearing and Visual Status

Hearing Status

XXXX has no history of a hearing impairment.

Visual Status

XXXX has history of a visual impairment.

He has a reported history of visual acuity within normal limits with correction.

Informal observation of functional visual performance during the SGD assessment revealed XXXX is able to use the SGD effectively with the modifications described below.

- Font size on the SGD display should be medium.
- Picture Symbols or icons should be 1 x 1 in size.
- Number of items per display: 60.
- Ability to hide keys to reduce visual distractibility: yes
- Auditory prompts are needed to assist in message selection: no

Daily Communication Needs

The results of a communication needs interview conducted with XXXX, relevant family members and caregivers revealed the following communication needs.

Communication Partners:

- spouse
- immediate family
- extended family
- friends
- healthcare provider
- stranger
- community member

Communication Environments

- home
- medical facility
- community
- support group
- telephone

Communication Activities, Abilities and Participation

- express physical needs/wants
- express needs/wants in emergencies
- express feelings and frustrations appropriately
- protest using appropriate behavior
- generate novel utterances
- ask questions
- make requests
- initiate interactions
- greet others
- participate in decision making
- participate in conversation
- tell stories and anecdotes
- access to medical care
- ability to report symptoms
- share information

Limitations of the current communication methods

This patient has been a highly communicative and social individual until recently where his speech has been greatly affected by ALS. He had been using an iPAD with various text to speech features to supplement his speech, however he is now unable to effectively use them currently due to UE weakness and inability to functionally type on the device. Family members are upset and frustrated as they are having a difficult time communicating with the patient.

Ability to Meet Communication Needs using non-SGD Treatment Approach

Speech therapy to improve/increase functional speech is not a viable option to meet XXXX 's communication needs because:

- of a degenerative condition for which speech therapy to improve/increase functional speech production is not effective.

The results of the communication needs assessment as documented in this section indicate the majority of XXXX 's daily functional communication needs cannot be met with natural speech and/or low-tech communication devices. Therefore, he requires an SGD to achieve and/or maintain functional communication abilities in activities of daily living.

Rationale for Device Selection

Input/Output Features

The input features listed below are required to enable XXXX to successfully use the SGD.

- Eye gaze

Justification of multiple input methods:

Based on the evaluation the patient could successfully use eye gaze to directly access the SGD. Multiple methods are required because patient's condition is progressive/degenerative and physical needs are expected to change.

The output features listed below are required to enable XXXX to successfully use the SGD.

- digitized speech
- synthesized speech

Justification of selected output features: Without synthesized speech, generative spelling is not possible nor is the use of Word Prediction or the addition of grammatical morpheme markers such as plural /s/ and verb tense markers. Digitized speech is also needed so that previously voice banked messages may inserted into the SGD pages, greatly improving emotional well-being as the ASL patient progresses and their natural voice is no longer available.

Language Characteristics

The language characteristics listed below are required to enable XXXX to use the SGD for functional communication

- generate messages using spelling/word prediction
- store/retrieve whole messages for rapid communication of routine items
- provide grammar detail to support optimum form of communication
- ability to store/edit/retrieve narrative messages (stories, reports, and speeches) from message files

Justification of language characteristics:

Based on the evaluation the patient has literacy skills to construct messages by spelling, and needs access to word based vocabulary that will allow him to generate unique messages.

Device Features

The device features listed below are required to enable XXXX to use the SGD for functional communication

- provide word/symbol prediction rate acceleration techniques
- ability to adjust font/symbol size to accommodate visual needs
- ability to adjust color and contrasts to accommodate visual or cognitive needs
- ability to adjust the number of items per display to accommodate visual, physical or cognitive needs
- ability to mount device on a wheelchair
- length of use after battery charged
- portable device

Justification of device features:

Based on the evaluation the device features should include a wheelchair mount and portability for ease of transporting the device.

Additional Features and Accessories

The additional features and accessories listed below are required to enable XXXX to use the SGD for functional communication

- Mount
- Eye gaze module

SGD Assessment or Trial and CPT Codes

Recommended Speech Generating Device CPT Code

Based on XXXX 's communication needs and considering his visual, hearing, physical, language and cognitive status as well as the specified features in this report, SGDs in this Medicare/CPT code category were considered:

Speech Generating Device	Manufacturer	Accessories
Accent 1400	PRC	NuEYE module, mount
Accent 1000	PRC	NuEYE module, mount
I-15	Tobii Dynavox	Eye tracker module, mount

Procedures Used for Evaluating the SGDs

When assessing XXXX 's ability to use the selected SGDs, the following procedures were used:

After proper positioning in chair and calibration for eye gaze, XXXX was instructed on use of device and navigation through various screens. Adaptations on selection speed were made by device representatives as needed. XXXX demonstrated excellent understanding on use of eye gaze technique, and had the opportunity to trial additional access methods. XXXX was best able to spell out and message short phrases independently via eye gaze.

Pictures or Symbols used

- Number per page: 60
- Size: 1"x1"
- Type: Clarity

- Number of pages: 60

Language formulating messages

- uses spelling and word prediction to construct messages

Words

- Spelling
- Word Prediction
- Complete Sentences

Using the recommended SGD, XXXX was able to generate these types of messages: complete sentences

XXXX demonstrated this level of proficiency with message generation: proficient.

Outcome of the SGD Evaluation

The Accent 1400 was selected as the most appropriate SGD for XXXX for the following reasons:

The Essence program is preloaded with a good variety of spelling based keyboard options allowing for prediction of word endings and next word possibilities which greatly increase the speed of communication for this patient.

Combined with the highly accurate NuEye tracking system, which will make it possible for this patient to continue communicating, despite limited UE use due to progressive neuromuscular disease process, the Essence program also features built in pages for utilizing banked messages, ECU controls, and functionality to generate written text messages, emails and letters to loved ones.

The Accent 1000 and Tobii Dynavox devices were ruled out for the following reasons:

XXXX was unable to see the smaller 10” screen size of the Accent 1000 device clearly enough to utilize it. The Tobii Dynavox required too much navigating to find pages with desired controls and unavailability of local, onsite support when needed was of concern to this patient.

Based on collected data and observations, the following clinical assessment of XXXX’s ability to access a communication device utilizing all available access methods were made.

- **Direct Finger Selection:** XXXX was moderately successful accessing the communication device using direct selection with his hand, however, it resulted in an extremely high level of fatigue and a significant error rate, even with the simple task of creating three sentences containing a total of 55 characters. This indicates that XXXX may be able to use direct selection as a secondary mode of access, however, direct access is not

a viable primary mode of access. The high level of fatigue he experiences on such a small communication task, demonstrates that use would deteriorate very quickly. Considering the degenerative nature of ALS, direct access by hand will become more difficult as the disease progresses.

- **Scanning:** XXXX's ability to access his device use scanning resulted in the fewest errors among all methods, however, communication rate was slow to the point of being nonfunctional. Considering the high level of medical need and physical support necessary with the progression of his disease, he must be able to communicate more rapidly than scanning allows.
- **Head Tracking:** Head tracking was the least effective method of device access. Utilizing the reflective dot on his forehead to control a cursor on the screen through head movement, XXXX produced the most errors and a communication rate only slightly slower than with switch access. Head tracking also produced a much higher level of fatigue than the scanning. Head control is expected to deteriorate with the progression of ALS, making head tracking more difficult overtime.
- **Eye Gaze:** Eye gaze was XXXX's most successful method of access during assessment. Communication rate was similar to direct selection but with dramatically fewer errors and significantly decreased fatigue. XXXX produced the longest passage presented in the shortest time period, with fewest errors, and the lowest level of fatigue. Eye gaze access is the least likely to be impacted by disease progression.

Summary: Direct selection, scanning, head tracking, and eye gaze methods of device access were all assessed at XXXX's current skill level. Clearly, eye gaze is now and will continue to be XXXX's most successful method for accessing a communication device. All other methods failed to produce a productive level of accuracy and speed while producing fatigue in the production of sentence level communication. Due to the degenerative nature of ALS, the factors that produced these results will only become more significant over time. Based on this assessment, I recommend eye gaze for XXXX's primary mode of communication device access.

Impact of recommended SGD on Client's Communication

This patient, who has been very social and conversational until the recent progression of his ALS was greatly empowered with this device during the SGD evaluation. After the introduction and calibration of the device, XXXX independently spelled short phrases to express his emotions and good humor. Currently, communication is extremely limited for this patient to effectively express his basic needs, as his speech is almost 100% unintelligible. Use of typing, texting or writing no longer effective due to UE weakness.

Recommended Speech Generating Device and Accessories

XXXX 's ability to achieve functional communication goals requires the acquisition and use of an SGD, mounting/carrying devices and accessories listed below. This SGD represents the clinically most appropriate device for XXXX , as it best meets the requirements for:

Input/Selection Technique:

- Eye gaze

Output:

- digitized speech
- synthesized speech

Language Characteristics:

- generate messages using spelling/word prediction
- store/retrieve whole messages for rapid communication of routine items
- provide grammar detail to support optimum form of communication
- ability to store/edit/retrieve narrative messages (stories, reports, and speeches) from message files

Device Features:

- provide word/symbol prediction rate acceleration techniques
- ability to adjust font/symbol size to accommodate visual needs
- ability to adjust color and contrasts to accommodate visual or cognitive needs
- ability to adjust the number of items per display to accommodate visual, physical or cognitive needs
- ability to mount device on a wheelchair
- length of use after battery charged
- portable device

This SGD best offers the combination of characteristics and features needed by XXXX for functional communication, thus empowering him to participate actively in a variety of situations, including social interaction, self-care and medical needs.

SGD, Mounting System or Accessory	Medicare CPT Code	Vendor Name, Address and Phone
Accent 1400	E2510: Synthesized, multi access, multi message	Prentke Romich Company 1022 Heyl Rd. Wooster, OH 44691 (330)262-1984
NuEYE module	E2599: Accessories	Prentke Romich Company 1022 Heyl Rd. Wooster, OH 44691
Wheel Chair Mount Kit (WCMK)	E2512: Wheelchair Mounts	Prentke Romich Company 1022 Heyl Rd. Wooster, OH 44691

Functional Communication Goals

XXXX 's short term and long term goals and estimated times for completion following receipt of the recommended SGD are listed below.

Functional Communication Goal	Estimated Completion Time	Short Term	Long Term
call for help from a family member/support person	1 week	Yes	No
express feelings or state of being	1 week	Yes	No
make requests and provide information to familiar listeners	2 weeks	Yes	No
make requests and provide information to unfamiliar listeners.	2 weeks	Yes	No
communicate physical needs and emotional status to family member/support person on a daily basis	2 weeks	Yes	No
describe physical symptoms and ask questions when interacting with health care professionals.	1 month	Yes	No
engages in social communication exchanges with immediate family members in person.	1 month	Yes	No
engages in social communication exchanges with extended family members, friends, classmates, colleagues in various environments.	2 months	No	Yes
asks questions and provides responses in community based transactions (order a meal, ask directions)	2 months	No	Yes
instructs caregivers on care requirements (transfers, bathing and mobility).	3 weeks	No	Yes
participates in family planning decisions	1 month	Yes	No
tells personal stories or anecdotes	2 months	No	Yes

Support, Treatment Plan and Signature

Client/Family Support of the Speech Generating Device

XXXX 's Spouse was present and/or are supportive of the necessity of the SGD for meeting his communication needs.

Physician Involvement Statement

This report was forwarded to the treating physician, (insert MD name address and phone here) The physician was asked to write a prescription for the recommended equipment.

Treatment Plan

Upon receipt of the equipment, it is recommended XXXX receive 5 treatment sessions to address the functional communication goals described earlier in this report. XXXX 's treatment goals will best be met in an individual setting.

SLP Assurance of Financial Independence and Signature

The Speech-Language Pathologist performing this evaluation is not an employee of and does not have a financial relationship with the supplier of any SGD.

Evaluating SLP Name:
ASHA Certification:
State License Number:

Speech Language Pathologist (SLP) Signature Date