AAC Evaluation for a SGD

Date of Evaluation:
Date of Report:

Client Information

Name: XXXX	Medicaid ID #:
Address:	Medicare ID #:
Phone:	Insurance Policy #:
Place of Residence:	Licensed SLP:
Date of Birth:	Medical Diagnosis: cerebral infarction, unspecified
Age: 61	Medical Diagnosis Onset:
Gender: Male	Speech Diagnosis: aphasia related to CVA
Physician Referral:	Speech Diagnosis Onset:

Background Information

Introduction

XXXX, a very young spirited 61 year old male, suffered from a massive intracranial bleed with cerebral edema resulting in a craniotomy to relieve pressure on his brain leaving him with profound expressive language deficits and mild to mod impaired comprehension of language as well as dysphagia. XXXX is now physically able to move about independently and is able to complete all activities of daily living independently and safely outside of communicating his needs through pointing and showing people what he wants or needs.

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

XXXX's medical history includes mild hearing loss for which he has bilateral hearing aides. He also has a history of COPD, Afib, and CHF. Since the CVA and craniotomy, XXXX has demonstrated some improvements in ability to express his needs through gesture and demonstrates significant gains in auditory comprehension of language. He currently has essentially no intelligible speech beyond the ability to repeat simple single syllable words pictured. XXXX has progressed from being unable to imitate any oral motor movements due to severe oral apraxia and apraxia of speech to being able to form at least 4 oral motor movements with a model and being able to repeat close approximations to target single syllable words. He did begin to produce a non-meaningful utterance for all attempts to verbalize, a Stereotypie, "komi" which has evolved since the onset and now varies minimally and is mostly "punny". He is unable to produce no more than 2 simple paired words with visual cues from SLP including

'up and down', ' you and me'. XXXX demonstrates a strong desire to socialize with others and makes many attempts to smile and 'joke' with others through gesture, pointing and showing people what he wants. He is unable to use gesture to indicate specific objects, actions or feelings due to his hand apraxia. He is unable to repeat a modeled gesture despite maximum cues. Reading comprehension skills are severely impaired although his skills have improved to currently being able to identify a target written word to correspond with a pictured object with a choice of 2 words 80-90% of the time. XXXX is unable to use writing to express himself in any way. He does currently have a very simple picture communication board in place on a 2 sided page with objects separated into categories. XXXX is able to recall locations very well, and is able to demonstrate learning of multistep sequences very quickly from session to session. He demonstrated perfect ability to recall 12 locations of pictured category icons from prior date without cues. He demonstrates very high motivation to learn any possible new means of improving his ability to communicate with others, especially with his family members.

Speech intelligibility in spontaneous communication is judged to be 2% intelligible to the unfamiliar listener.

XXXX's condition is chronic and stable and independent communication is expected to remain stable at the present level. Therefore, it is anticipated that XXXX’s natural speech will not be sufficient to meet daily communication needs for the foreseeable future. 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:

- formal testing
- observation
- trial therapy
- report by family

Summary of the diagnostic assessments used, test results.

The Boston Diagnostic Aphasia Evaluation was used to formally assess this patient's communication skills. He was diagnosed with severe to profound global aphasia. He produced no intelligible words to describe or name, was unable to correctly ID single words read aloud given choice of over 20 words, and was unable to repeat any single words or phrases or produce any automatic sets of numbers, days, months of the year. He demonstrated no ability to write single words and demonstrated no ability to answer simple paired yes, no questions accurately. Through intensive speech and language therapy sessions, the patient did demonstrate improvements in all areas. He is now able to imitate close approximations to simple single syllable words with some visual cueing at least 75% attempts. He is able to comprehend single simple written words and pair with target objects choice of 5, 65-70% attempts at best. XXXX

initially demonstrated aggressive behaviors associated with high level of frustration related to being unable to express himself or to comprehend others. He now is extremely pleasant and cooperative and demonstrates excellent cognitive skills related to following visual directions and recalling multiple details from prior sessions and self-care wnl.

XXXX presents with severe impairment in language functioning 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 frequently used words

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

Additional receptive language information:

XXXX demonstrates comprehension of information when paired with visual information. He is unable to point to target objects, actions or minimally abstract concepts related to pictured objects or pictured scenes even when directions presented simply and repeated up to 3 times. When presented with directions paired with visual information, objects, manipulatives, patient is able to eventually comprehend multistep directions and directions to complete a task just modeled with consistent accuracy. At times the patient requires objects to be drawn when providing information about objects not present or more abstract concepts.

Expressive Language

XXXX communicates expressively using the following skills:

- facial expression
- points
- gestures
- Vocalizes/approximates words (1 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.

Additional expressive language information:

XXXX does attempt to verbalize, however, his utterances are unintelligible neutral sounds with a rare production of a close approximation to a word. Most attempts at utterances are a stereotypie /puni/. XXXX demonstrates with appropriate pragmatics related to his gestures, facial

expression, behaviors and hygiene, and attempts to communicate, however, he is unable to express any meaningful utterances to specifically express abstract concepts.

Pragmatics

XXXX demonstrates the following pragmatic language skills:

XXXX follows these basic conversation rules:

- takes turns
- introduces topics
- stays on topic
- uses facial expression
- makes eye contact
- uses repair strategies when misunderstood

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: high school.

XXXX's functional reading skill is: non-reader

Additional reading comprehension information:

XXXX had previously demonstrated functional reading skills prior to his stroke. He currently is unable to comprehend more than common single words 95% and very short simple phrases more than 50% accuracy making a written form of communication impossible for him. He is able to consistently match single letters and single words to pictured objects with a choice of 10 with some increased processing time.

Writing

XXXX is unable to produce written language.

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

not applicable

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' stroke effected his dominant right side including his right hand leaving him with physical difficulties controlling fine motor movements for writing as well as impaired written expressive language deficits equal to that of his verbal deficits. He is unable to form any meaningful written or typed words.

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

Cognitive Abilities

XXXX demonstrates mild impairment in cognitive functioning.

Length of assessment and/or training trials: two months.

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:

XXXX demonstrates good recall re multiple tasks presented from prior dates. He demonstrates an excellent ability to complete activities of daily living and demonstrates excellent judgment re hygiene and all self-care tasks. He demonstrates excellent care of his personal belongings and attends to details in his environment re safety and organization wnl. XXXX demonstrates an extremely high interest in using computers and demonstrates excellent recall re sequences of up to 5 steps. He demonstrates excellent ability to sort objects into given categories represented by pictured objects with a choice of 10. He demonstrates an excellent potential to learn all the functions a communication device.

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

- manual, one hand

The SGD will be used by XXXX in these positions: sitting, standing. Positioning will not affect access of the SGD and XXXX will not require multiple access methods.

Description of XXXX's ability to use the access method(s) above, modifications needed for success and accommodations that may be required over time to deal with changes in physical access.

XXXX is able to access any type of device despite mild limitations re dominant right handed weakness. He has been using his left hand for the majority of functions, however, he does at times use his weak dominant right hand. Has sufficient arm control and is easily able to hold his hand at a sufficient angle to access a flat screen. He has demonstrated good ability to compensate for any difficulties re angle or long finger nail with use of a stylus.

Mobility

XXXX is ambulatory and uses no assistive devices for mobility.

A wheelchair mounting system will not be required.

XXXX will transport the SGD by carry strap.

The SGD must not exceed 5 lbs. in weight.

The physical size of the SGD must not exceed these dimensions. (HxWxD) 8x10.

A carry case is required to transport the SGD.

Additional mobility information:

XXXX will need to carry the device with him to all settings and will require a handle as well as a carrying case. He is unable to grasp a heavy item with his dominant right hand and will need to support carry the device with his non-dominant left hand. He will benefit from a small, easily portable device.

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 history of a hearing impairment.

He has a reported history of 35 % hearing loss.

He uses hearing aide to augment hearing.

These modifications are needed in the SGD to accommodate XXXX's hearing impairment:

The patient was recently fitted for bilateral behind the ear hearing aides which he wears consistently. He demonstrates great benefit from these as he responds to verbally presented information much more consistently and accurately when they are in place. He demonstrates excellent care for the hearing and does require min assistance with changing batteries due to impaired fine motor control of his dominant right hand.

Visual Status

XXXX has history of a visual impairment.

He has a reported history of mild uncorrected visual impairment.

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 .5 x .5 in size.
- Color contrasts are needed to enhance visibility of text or symbols: yes
- Number of items per display: 45.
- Ability to hide keys to reduce visual distractibility: yes
- Auditory prompts are needed to assist in message selection: yes

XXXX presents with impaired vision, however, he is able to easily compensate with his corrective eyeglasses recently prescribed as well as increased time to scan when provided with multiple options. He does demonstrate mildly impaired attention to his right effected side. After initial cues to attend to right, he does so consistently and recalls locations of icons being on his right and requiring additional effort to locate.

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:

- immediate family
- extended family
- friends

- healthcare provider
- stranger
- community member

Communication Environments:

- home
- medical facility
- community
- 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:

XXXX is a highly sociable, relatively young man with a large extended family who is known to others as having a great sense of humor and high desire to interact with others on a regular basis. Per his family, he has "always loved to tell jokes and make people laugh". He has some medical conditions which need to be monitored by any caregivers and medical professionals for his safety. He is currently unable to produce any intelligible utterances and demonstrates social isolation due to this profound communication deficit. At this time he typically remains in his room throughout the day with the curtain pulled closed around his bed. He does attempt to gain others' attention by tapping a shoulder pointing to items which he finds to be funny and does smile and laugh as others attempt to joke with him, although he does not consistently comprehend all of the words. He currently has a low tech communication board to express very basic needs, however, he demonstrates such a huge benefit from the auditory feedback of a device which 'speaks' his message. He even demonstrates some accurate imitation of the phrases after the device produces the selected words or phrases. He demonstrates a high level of frustration by his limitations and the low tech board is extremely limiting. It does not allow him to produce any creative phrases, and does not allow for easy modifications if his communication

would allow for it. XXXX demonstrates excellent cognitive status and demonstrates an excellent potential to improve socialization with a high tech device with multiple options, levels and features.

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:

- it resulted in insufficient progress in functional speech production.

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.

- touchscreen
- dynamic display

Justification of multiple input methods:

XXXX is unable to write or use his dominant right hand for any fine motor movements. His expressive speech deficits are so severe that he is unable to convey any intended messages through speech. A tough screen and dynamic display will allow for a nearly unlimited options for icon selection, language production and access as efficiently as possible. He is unable to physically flip through multiple pages in a book effectively, however, a device with a screen allows for efficient selection. He also greatly benefits from having visual feedback of his selections. He will be able to practice and master use with much less treatment time if he is able to learn the device functions, icon locations and other features outside of structured sessions.

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

- 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. Synthesized speech ensures a gender and age appropriate voice, which will be available on all areas of his vocabulary screen.

Language Characteristics

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

- generate messages using all 3 language representation strategies, spelling, single meaning pictures, multi-meaning pictures
- store/retrieve whole messages for rapid communication of routine items
- provide word-based core vocabulary to support generation of novel utterances
- 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

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

- vocabulary organization based on core rows for high frequency vocabulary and an activity row for extended vocabulary to avoid navigation among pages and develop motor planning
- 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
- length of use after battery charged
- portable device

Justification of device features

XXXX is a highly independent mobile adult with a goal to return to independent living as a community member with minimal to no assistance with activities of daily living. He ambulates without an adaptive device and will require a light portable device for use in many settings including while ambulating if needed. He will require a device with single word vocabulary allowing novel and pre-stored sentence formulation. He does have some visual deficits which necessitate enlarged icons and color contrast to make selections more efficient. Having a written display of chosen words and phrases allows for additional feedback. He will benefit from stock phrases as well as single words in respective categories to improve efficiency. He will require a means of practicing use of the device while mastering the features and many options for use and will benefit from simplified versions with gradual increases in complexity as he masters the format and locations.

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
NovaChat 10	Saltillo Corporation	
Accent 1000 Wordpower configuration	Prentke Romich Co	
TOBII T10	Tobii-Dynavox	

Procedures Used for Evaluating the SGDs

When assessing XXXX's ability to use the selected SGDs, the following procedures were used: An onsite consultation with an AAC specialist from Saltillo was completed, at which XXXX had an opportunity to trial options to assess for most appropriate size and ease of use. A one month trial followed, allowing him daily practice to ensure a good match with this technology and his needs.

Pictures or Symbols used

- Number per page: 45
- Size: 1"X1"
- Type: Symbolstix symbols
- Number of pages: 45

Language formulating messages

- single hit for one phrase or message
- combines 2-3 pictures to produce phrase or short sentence
- combines pictures/symbols to construct complete messages
- uses spelling and word prediction to construct messages

Words

- Word Prediction

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

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

Outcome of the SGD Evaluation

The NovaChat10 D+ was selected as the most appropriate SGD for XXXX for the following reasons:

The NovaChat 10 is an easily portable device for this very independent mobile man who is suffering from profound deficits leading to an inability to express his ideas, thoughts, needs and wants through any verbal, written or gestural means. He demonstrates intact recall and cognition and comprehension with enough visual information along with auditory presented information to master the use of a device like this. This device is easily adaptable for his abilities. It is very appealing to him due to the rapid response time, ability to modify and increase the number of selections, categories and stock phrases able to be programmed into the plan. The Wordpower configuration and system features relatively concrete icons for categories and phrases and will allow the patient to master basic features and then move on to more complex features allowing for more creative productions and use in any setting with any type of communication partner. The device allows for incorporating imported recordings, music and photographs to enhance the dedicated nature of the device to add personality to his 'voice'. The NovaChat 10 allows for a large number of options at an optimal size for his vision and provides visual and auditory feedback with the word prediction feature and Acapela voice options. XXXX will require training from a speech language pathologist for optimal initial setup and training and for training family members to assist with any modifications or additions as needed. XXXX very quickly demonstrated understanding of the simplified format of the NovaChat 10 using the Wordpower configuration. He was provided with several opportunities to select and manipulate and ID content of pictured scenes and consistently demonstrated more efficient selection of target objects, concepts and stock phrases with the simplified, high contrast icons present on the NovaChat 10 device.

The Accent 1000 and TOBII T10 were ruled out for the following reasons:

The Accent 1000 did not allow for easy visualization of 45 options limiting his ability to be flexible and creative with language use.

The TOBII10 device is the same size as the Accent 1000, however, Dynavox does not offer the same level of support. He will likely require involvement from a speech pathologist who is trained in the areas of aphasia to further modify his device once he is in his more permanent home setting. Saltillo provides the support of consultants who are licensed and trained speech language pathologists as long as the device is in the customer's possession. Additionally, the available vocabulary program does not provide the format for categories, pages and various levels and adaptations most appropriate for XXXX and his visual skills.

Impact of recommended SGD on Client's Communication

XXXX is capable of managing independently in the community and he will be in a variety of settings requiring this user friendly, efficient effective device to maintain this independence. The NovaChat 10 will provide him with a means of expressing all aspects of communication from basic needs to interests and social interactions. He has been known as an extremely sociable gentleman with a variety of interests. He had previously played the piano and has a great interest in several music genres. XXXX is known to have a wonderful sense of humor and his family reports his high interest in participating in games and telling jokes. He will need to communicate with healthcare providers on an ongoing basis to maintain control and decision making abilities for himself in many settings.

Recommended Speech Generating Device and Accessories

XXXX's ability to achieve functional communication goals requires the acquisition and use of the 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:

- touchscreen
- dynamic display

Output:

- synthesized speech

Language Characteristics:

- generate messages using all 3 language representation strategies, spelling, single meaning pictures, multi-meaning pictures
- store/retrieve whole messages for rapid communication of routine items
- provide word-based core vocabulary to support generation of novel utterances
- 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:

- vocabulary organization based on core rows for high frequency vocabulary and an activity row for extended vocabulary to avoid navigation among pages and develop motor planning
- 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
- length of use after battery charged

- portable device

Additional Features and Accessories:

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
NovaChat 10	E2510: Synthesized, multi access, multi message	Saltillo Corporation 2143 Township Road 112 Millersburg, OH 44654

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	2 weeks	Yes	No
express feelings or state of being	2 weeks	Yes	No
make requests and provide information to familiar listeners	1 month	Yes	No
make requests and provide information to unfamiliar listeners.	2 months	No	Yes
communicate physical needs and emotional status to family member/support person on a daily basis	3 weeks	Yes	No
engages in social communication exchanges with immediate family members in person.	1 month	Yes	No
asks questions and provides responses in community based transactions (order a meal, ask directions)	2 months	No	Yes

Functional Communication Goal	Estimated Completion Time	Short Term	Long Term
The patient will be able to participate in decision making and planning related to his living situation and healthcare.	2 months	No	Yes

Support, Treatment Plan and Signature

Client/Family Support of the Speech Generating Device

XXXX's Support Person 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 PHYSICIAN NAME AND CONTACT INFO), on (INSERT DATE SENT TO PHYSICIAN)

The physician was asked to write a prescription for the recommended equipment.

Treatment Plan

Upon receipt of the equipment, it is recommended XXXX receive 40 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