

AAC Evaluation for a SGD

Date of Evaluation: Feb 09, 2015

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Client Information

Name: Lastname, XXXX M

Medicaid ID #: 123456789

Address: 123 Anywhere Street
North Little Town, AR 12345

Medicare ID #:

Phone: (800) 262-1984

Insurance Policy #:

Place of Residence: Home

Licensed SLP: Tammy Therapist

Date of Birth: Mar 07, 2007

Medical Diagnosis: Autism

Age: 9

Medical Diagnosis Onset: Mar 07, 2009

Gender: Male

Speech Diagnosis: Apraxia

Physician Referral: Dena Doctor

Speech Diagnosis Onset: Mar 07, 2010

Background Information

Introduction

XXXX is a sweet young boy with a big personality but is currently unable to communicate his wants and needs due to severe apraxia of speech and autism.

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

XXXX was born through C-section and began developing normally. At one year, developmental delays were becoming evident. No words and very few sounds were evident at one year. Although years of speech therapy were integrated to increase verbalizations, no progress has been made. XXXX currently communicates using the low tech PEC (Picture Exchange Communication) system but becomes frustrated when it is not fast enough and does not have what he wants to communicate. XXXX has a few manual signs, but he frustrates easily when misunderstood by others.

Speech intelligibility in spontaneous communication is judged to be 10% 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 verbal speech does not meet his daily communication needs.

Language Skills and Abilities

Speech and language abilities have been determined by:

- formal testing
- informal assessment
- observation
- trial therapy
- report by family
- teacher

Summary of the diagnostic assessments used, test results:

XXXX was evaluated using the following assessment tools: Preschool Language Scale – Fourth Edition (PLS-4), Test of Early Language Development – Third Edition (TELD-3), Functional Communication Profile-Revised. These tests revealed profoundly delayed language skills. XXXX demonstrated little to no spontaneous and/or functional spoken language. He has limited ability to communicate his wants and needs.

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 references to items that are out of sight
- understands one or two part directions
- understands simple questions

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

Additional receptive language information:

XXXX understands basic directions such as "come with me" and "sit down". He has recently begun following such directions as "go get a puzzle and bring it to the table". However, he has to have an interest in the content of the directions. XXXX is able to identify objects in pictures but has to be motivated to do so. He is able to understand and label the letters of the alphabet and numbers.

Expressive Language

XXXX communicates expressively using the following skills:

- facial expression
- points
- gestures
- sign language
- uses single pictures/symbols to convey a message
- uses a manual communication system

When XXXX's receptive and expressive language skills are compared, he appears to understand significantly more than he is able to communicate, indicating the need to focus on expanding his ability to communicate.

Additional expressive language information:

Currently XXXX uses facial expression, physical proximity, sign, screaming, and tantrums to communicate. XXXX also communicates using the PEC system but becomes frustrated when it is not fast enough and does not have what he wants to communicate.

Pragmatics

XXXX demonstrates the following pragmatic language skills:

- greetings

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: Elementary school.

XXXX's functional reading skill is: single word level

Additional reading comprehension information:

Writing

XXXX is able to produce written language.

He uses handwriting to produce written communication in these forms: words (copied)

An SGD (Speech Generating Device) must use this method of message production to enable XXXX to generate written language:

- spelling
- words
- pictures

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):

Currently, XXXX has no consistent way to make his wants and needs and his medical issues known to his caregivers. He has demonstrated the ability to use pictures, sign, and voice output devices functionally and it is felt that he would be successful with a SGD device.

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: 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:

XXXX's attention, memory, and problem solving skills were observed during the evaluation and were functional to learn to use the speech generating device successfully. During the hour long assessment and device trials, he demonstrated attention, memory and problem solving skills through increased independent access of the trialed vocabularies.

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
- manual, both hands

The SGD will be used by XXXX in these positions: sitting, standing, prone, supine, and side-lying. 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 has full capability to manually and directly select electronic symbols with his left hand. However, a keyguard will be necessary for the client to most accurately complete the direct selection access method. This accessory will aid XXXX in isolating his finger and reduce unintended selections and corresponding frustrations due to mishits. The keyguard will also prevent other parts of XXXX's hand from touching the screen further reducing mishits.

Mobility

XXXX is ambulatory and uses no assistive devices for mobility.

A wheelchair mounting system will not be required.

The SGD must not exceed 4 lbs. in weight, and XXXX will transport the SGD by carry strap and carry case.

The physical size of the SGD must not exceed these dimensions. (HxWxD) 11.7x7.1x1.4.

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 no history of a visual impairment.

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
- friends
- healthcare provider
- person who cannot read
- school staff

Communication Environments

- home
- medical facility
- community
- school
- 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
- access to medical care

- ability to report symptoms
- share information

Limitations of the current communication methods:

XXXX is not able to consistently communicate verbally at this time. He is not able to communicate his wants and needs in a functional manner. Because he has high cognitive and receptive language skills, a low tech device is not appropriate because it will not be able to generate all the communication XXXX is capable of producing with an SGD. XXXX has a diagnosis of autism with a significant expressive speech and language delay. XXXX's speech is extremely difficult or impossible to understand. He demonstrates childhood apraxia of speech and oral apraxia. He is unable to use natural speech and has been unsuccessful with the use of PECS and sign language. His attempts at natural speech consists of gestures and vocalizations in attempt to communicate. PECS limits him as to the type of communication he can engage in and did not encourage spontaneous communication or conversational turn taking. He is unable to express his wants/needs, feelings, state of being, ask questions, express protests in a socially appropriate manner, participate in decision making, report medical status and/or complaints, or participate in a conversation.

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:

- Speech functioning has been static for a period of time and no improvement is expected.

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:

Touchscreen is necessary for an SGD device for XXXX because it easiest for him to access. XXXX will be more likely to use this device for functional communication if it is easy for him to use. A dynamic display is needed because it allows for language growth and will ensure that XXXX is able to communicate functionally in all environments.

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

- synthesized speech
- SGD Display Size: 60 location

Justification of selected output features:

Synthesized speech would be a more natural and functional way for XXXX to use his device, without relying on others to make voice recordings (digitized speech) for him that aren't consistent from person to person and may not match his gender and age. Additionally, 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.

A vocabulary organized from 60 locations will be robust enough to meet his communication needs at the present time and allow for growth over the next 5 years.

Language Characteristics

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

- Generate messages using multiple language representation strategies, including, spelling and single-meaning pictures
- Store/retrieve whole messages for rapid communication of routine phrases/utterances
- 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, speeches) from message files

Justification of language characteristics:

XXXXX was most successful using the WordPower 60 Basic language system on the NovaChat 8. The predictive nature of WordPower allowed XXXXX to create 1-, 2-, and 3-word phrases during a trial with the device. In addition, the grammatical supports available in WordPower allowed XXXXX to create grammatical utterances with the fewest number of button pushes possible. For example, XXXXX pushed three buttons "I + want + eat" on the device; the message output said, "I want to eat". XXXXX also demonstrated successful use of stored messages, such as, "I love you" and "How are you", during conversational exchanges. Other pre-stored messages and the ability to customize and store complete messages will allow for improved functional communication with unfamiliar communication partners, and in emergency situations, as well.

Device Features

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

- Vocabulary organization based on rows of high frequency core vocabulary words and a row of categories and fringe vocabulary for extended vocabulary to avoid navigation among pages and develop motor planning
- Provide word/symbol prediction rate acceleration techniques
- Software toolset features: hide mode, word finder, visual scenes,
- Ability to adjust colors and contrasts to accommodate visual and 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:

XXXXX demonstrated the ability to learn, recall, and use core words and word structures on the NovaChat 8. The indicated software features will aid in targeting new words for learning, therefore, expanding his expressive vocabulary. The use of Hide Mode restricted the number of icons that were temporarily visible. This reduced language load allowed XXXXX to learn individual words and without having an undue burden of scanning multiple unrelated buttons or excessively increased navigation. Additionally, using Hide Mode allowed XXXXX to begin to develop motor patterns since the words will remain in the same location, but new and more vocabulary can be gradually uncovered/shown on the page(s). This will allow XXXXX's language to grow within one language system for the next several years. The SGD must be portable to allow access in different locations such as the classroom, playground, therapy rooms, home, and community. XXXXX is ambulatory and moves independently. The NovaChat 8 is lightweight and portable with a shoulder strap; the Active Wrap will help protect the device's screen from falls and drops that may occur throughout the day. These factors (lightweight, portable, Active wrap) promote use of the device in natural settings for functional communication.

Additional Features and Accessories

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

- keyguard

Justification of Additional Features and Accessories:

XXXXX has full capability to isolate his index finger and manually select symbols. However, a keyguard will be necessary for XXXX to most accurately complete the direct selection access method. The keyguard prevents other parts of XXXX's hand from touching the screen while making his selection which reduced the number of mishits and minimized frustration.

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 8 | Saltillo | 60-location keyguard |
| Accent 1000 | PRC | 60-location keyguard |
| T-10 | Tobii Dynavox | keyguard |

Procedures Used for Evaluating the SGDs

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

Toy trains and cars were utilized during the during the evaluation process in order to facilitate communication between XXXXX and evaluating therapist by following the child's lead. The hide buttons feature was utilized to limit the number of symbols displayed. During the trial session, a variety of language concepts and functions were communicated by the child. XXXXX expressed several one- and two-word utterances including: go, want, stop, put, open, want that, you go, put in, open it. The device was used to request objects, request actions, direct the actions of others, and request attention and help. In addition, XXXXX expressed a variety of language concepts not previously expressed verbally. Using the SGD, XXXXX expressed several colors (when making choices), expressed early learned concepts (in/out), and used several pronouns (I, you). During the trial, XXXXX was initially given moderate verbal and visual prompts to formulate one-word utterances. However, by the end of the trial session, XXXXX independently formulated one-word utterances to say "want" and "stop". A keyguard was used to help XXXXX isolate and identify buttons on the SGD screen easily. The use of the keyguard resulted in fewer mishits on the SGD.

Pictures or Symbols used

- Number per page: 60
- Size: Small
- Type: SymbolStix
- Number of pages: 0

Language formulating messages

- combines 2-3 pictures to produce phrase or short sentence

Words

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

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

Outcome of the SGD Evaluation

The NovaChat 8 was selected as the most appropriate SGD for XXXX for the following reasons:

The NovaChat 8 was found to be the most appropriate for XXXX because it uses a predictive core vocabulary system built on consistent motor patterns for each of the over 4,000 prestored words. XXXX will be able to communicate wants/needs, safety, social, physical, and emotional needs. The NovaChat 8 provides multiple vocabularies to best meet XXXX's needs. Additionally, the WordPower vocabularies are color-coded using a modified Fitzgerald key to help differentiate between various words classes (such as pronouns, verbs, prepositions, negation words, etc.). WordPower is a predictive vocabulary system allowing users to create common, frequently used utterances with the fewest number of button pushes possible. Other vocabulary is arranged using category buttons (People, Time, Places, Describe, Groups) to effectively organize and access vocabulary. The use of hide mode allows for a decreased number of buttons to be shown in order to promote learning and use of a targeted number of words. These features allow XXXX to utilize the device and WordPower to develop and grow language in order to communicate in various settings throughout his/her lifespan.

The Accent 1000 and T-10 were ruled out for the following reasons

The Accent 1000 showed promising features and value. However, the language organization of the Accent 1000 was simply too challenging for XXXX to access successfully.

While containing a large vocabulary set of pages, and many similar hardware features as the Accent 1000, the Tobii T-10 requires considerable navigation on behalf of the end user. At times, as many as 5-8 screen activations may be required to locate a single word or phrase. This requires increased amounts of concentration and visual discrimination, which can slow down the rate of communication. The ability to communicate quickly is essential to learning and social interaction as well as to achieve and maintain independence. Additionally, much of the Tobii T-10 vocabulary offerings rely heavily on pre-stored phrases based/sentence based selections. This inhibits the combination of single words and can be detrimental in achieving spontaneous novel utterance generation (SNUG), which is primary goal for this child.

The selected device, NovaChat 8, is recommended for purchase.

Impact of recommended SGD on Client's Communication

Communication is most effective when the individual can produce spontaneous, novel utterances and therefore say whatever he wants to say at any time. For this to occur, XXXX must be granted access to an augmentative alternative communication (AAC) device due to his nonverbal status. The NovaChat 10 features a large single word vocabulary with an emphasis on the most frequently occurring words in speech. The motor patterns used to access these words will be consistent for speed of access and fluency of communication. The speech generating device

(SGD) will ultimately provide XXXX with an endless avenue to vocabulary and language learning while giving him the means to communicate the necessities of daily living to familiar and unfamiliar listeners. Currently, XXXX is limited to one-word messages not clearly understood to the unfamiliar listener and communication through PECs. These communication methods provide minimal functionality at school and at home. XXXX's speech-language pathologist and classroom teacher are typically the only individuals who can understand his spoken requests, and he becomes frustrated easily when his wants and needs are not solved through use of his PECs book. Therefore, the Accent 1000 will empower XXXX to communicate feelings, emotions, wants, and needs in all settings which he has never been able to communicate before.

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
- SGD Display Size: 60 location

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 rows of high frequency core vocabulary words and a row of categories and fringe vocabulary for extended vocabulary to avoid navigation among pages and develop motor planning
- Provide word/symbol prediction rate acceleration techniques
- Software toolset features: hide mode, word finder, visual scenes,
- Ability to adjust colors and contrasts to accommodate visual and 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:

- keyguard

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 8 | E2510: Synthesized, multi access, multi message | Saltillo Corporation 2143 Township Road 112 Millersburg, OH 44654 |
| 60-location keyguard | E2599: Accessories | 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 | 3 weeks | Yes | No |
| express feelings or state of being | 1 week | No | Yes |
| make requests and provide information to familiar listeners | 1 week | No | Yes |
| make requests and provide information to unfamiliar listeners. | 2 weeks | No | Yes |

| Functional Communication Goal | Estimated Completion Time | Short Term | Long Term |
|--|----------------------------------|-------------------|------------------|
| communicate physical needs and emotional status to family member/support person on a daily basis | 1 month | No | Yes |
| describe physical symptoms and ask questions when interacting with health care professionals. | > 3 months | No | Yes |
| engages in social communication exchanges with immediate family members in person. | 2 weeks | No | Yes |
| engages in social communication exchanges with extended family members, friends, classmates, colleagues in various environments. | 3 weeks | No | Yes |
| asks questions and provides responses in community based transactions (order a meal, ask directions) | > 3 months | No | Yes |
| tells personal stories or anecdotes | > 3 months | No | Yes |

Support, Treatment Plan and Signature

Client/Family Support of the Speech Generating Device

XXXX's parents were present and are supportive of the necessity of the SGD for meeting his communication needs.

Physician Involvement Statement

This report was forwarded to the treating physician, Dena Doctor, Children's Hospital, 123 Hospital Street North Little Town, AR 12345, on Feb 09, 2015. The physician was asked to write a prescription for the recommended equipment.

Treatment Plan

Upon receipt of the equipment, it is recommended XXXX receive ongoing treatment sessions to address the functional communication goals described earlier in this report. XXXX's treatment goals will best be met in a combination of individual and group treatment 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: Tammy Therapist

ASHA Certification: 123456

State License Number: A1234567

Speech Language Pathologist (SLP) Signature

Date