

# 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 LAMP Words for Life vocabulary.

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: 84 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 84 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 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

Justification of language characteristics:

XXXX was most successful using the vocabulary organized from multi-meaning symbols. Each word could be accessed from three buttons or less in a very efficient manner. XXXX is able to spell, so access to a spelling screen will also give him the ability to spell words that are not pre-stored in the vocabulary. Storing and retrieving whole messages for rapid communication will assist in emergency situations and help XXXX indicate needs quickly. Providing a word-based core vocabulary will help XXXX develop spontaneous functional new speech utterances in the future.

## **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
- software toolset features: icon tutor, icon prediction, vocabulary builder, contextual scenes
- 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 possesses the capacity to learn new vocabulary and word structures. The indicated software features will aid in targeting new words for learning, therefore, expanding his expressive vocabulary. In addition, use of the PRC Vocabulary Builder tool allows for only targeted vocabulary to be visible while those motor patterns are learned which maintains the integrity of all other previously learned motor patterns. This allows a communicator to utilize one language system throughout their language development. Adjusting the number of items per display will assist XXXX in developing motor memory in conjunction with specified vocabulary on the device. This will increase the efficiency of his communication by training an automatic movement to select desired symbols. Without consistent motor patterns to access words, the communicator must rely on picture recognition and screen navigation placing a greater cognitive load on the communicator and reducing communication rate. The SGD must be portable to allow access in different locations such as the classroom, playground, therapy spaces, home, and community areas. In addition, XXXX is mobile and able to move independently. A portable device will promote the most natural and functional communication for the client.

### **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:

XXXX 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:

<b>Speech Generating Device</b>	<b>Manufacturer</b>	<b>Accessories</b>
Accent 1000	PRC	84-location keyguard
Accent 800	PRC	84-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 evaluation process in order to facilitate communication between XXXX and evaluating therapist by following the child's lead. The Vocabulary Builder feature was used to limit the number of symbols displayed. Background coloration of select symbols was changed during the evaluation to promote ease of access for the patient. A two-hit sequence was performed; XXXX demonstrated developing muscle memory during the one-hour assessment time period. A variety of language concepts were communicated by the child in up to 2-3 word phrases including: verbs, adjectives, pronouns, and spatial terms. Examples of words and phrases produced using the SGD include "go fast/slow," "stop," "big," "little," "my turn," "in," "out," "I want (color)." During the assessment, XXXX was seated in an upright position at a table. The device(s) were accessed on the tabletop. A keyguard was used to provide boundaries which allowed XXXX to most easily select the symbols intended with less mishits.

### **Pictures or Symbols used**

- Number per page: 84
- Size: Small
- Type: Minspeak
- 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 Accent 1000 was selected as the most appropriate SGD for XXXX for the following reasons:

The Accent 1000 was found to be the most appropriate for XXXX, because it uses a unique language software, LAMP Words for Life, built on consistent motor patterns for each of the over 4,000 pre-stored words. XXXX will be able to communicate wants/needs, safety, social, physical, and emotional needs. The Accent 1000 provides three different vocabulary levels to meet XXXX's developmental needs; yet motor patterns for learned vocabulary do not change as access to vocabulary is increased. In addition, all words are accessible with three touches or less providing a very efficient means for XXXX to communicate based on his preferences and abilities. The device also has the Vocabulary Builder feature, which allows for only targeted vocabulary to be visible while motor patterns are learned. This will allow XXXX to utilize one language system throughout his language development.

The Accent 800D and T-10 were ruled out for the following reasons

The Accent 800-D showed promising features and value. However, the screen size of the Accent 800 was simply too small 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. Using the LAMP Words for Life vocabulary on the PRC Accent device, all words are within three screen activations maximum, and words that are more frequently occurring in our language take even less navigation (1-2 screen activations). 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, Accent 1000, 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 Accent 1000 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: 84 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 core rows for high frequency vocabulary and an activity row for extended vocabulary to avoid navigation among pages and develop motor planning
- software toolset features: icon tutor, icon prediction, vocabulary builder, contextual scenes
- 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:

- 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.

<b>SGD, Mounting System or Accessory</b>	<b>Medicare CPT Code</b>	<b>Vendor Name, Address and Phone</b>
Accent 1000-BLUE	E2510: Synthesized, multi access, multi message	Prentke Romich Company 1022 Heyl Rd. Wooster, OH 44691 (330)262-1984
84-location keyguard	E2599: Accessories	Prentke Romich Company 1022 Heyl Rd. Wooster, OH 44691 (330)262-1984

## 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:

<b>Functional Communication Goal</b>	<b>Estimated Completion Time</b>	<b>Short Term</b>	<b>Long Term</b>
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

<b>Functional Communication Goal</b>	<b>Estimated Completion Time</b>	<b>Short Term</b>	<b>Long Term</b>
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

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Speech Language Pathologist (SLP) Signature

Date