

# 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: Cerebral Palsy
Age: 8	Medical Diagnosis Onset:
Gender: Male	Speech Diagnosis: Expressive Speech/Language Disorder
Physician Referral:	Speech Diagnosis Onset:

## Background Information

### Introduction

XXXX is an 8 year old boy who attends a multiple disabilities classroom. He is a smiling and friendly boy with limited use of both arms and both legs due to Cerebral Palsy. He enjoys interacting with peers and staff and will laugh and grin when he enjoys something that was said.

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

XXXX has diagnoses of cerebral palsy, a seizure disorder, global delays, asthma, acid reflux and GERD. He demonstrates the following communication skills: smiling/laughing and verbal approximation of about 10 familiar words. XXXX is not able to communicate by pointing or head shaking/nodding. He demonstrates some eye gaze skills, however these are inconsistent due to suspected motoric limitations of the neck and/or eye stabilization/control. He is unable to imitate oral motor movements. He is able to produce a bilateral smile, however he presents with global muscular weakness which significantly impedes his speech intelligibility. XXXX presents with a whispered vocal quality suspected secondary to oral-motor weakness. Repeated attempts to increase his vocal loudness are unsuccessful.

Speech articulation is significantly impeded by his oral motor deficits, resulting in decreased speech intelligibility, which is informally judged to be understandable less than 25% of the time. XXXX typically communicates his wants and needs by responding to yes/no questions only which can be extremely limiting.

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 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:

Observation and Assessment:

Attempts to administer a formal assessment of XXXX's receptive and expressive language using the Receptive One-Word Picture Vocabulary Test--Fourth Edition (ROWPVT-4) and Expressive One-Word Picture Vocabulary Test--Fourth Edition (EOWPVT-4) were made. However, given motoric limitations which impede his ability to point to pictures and lack of intelligible verbal speech, testing was discontinued due to lack of acquisition of a basal score. Therefore, informal observation and teacher/parent report were also used to assess language skills.

### **Receptive Language**

XXXX demonstrates the following receptive language skills:

- attends when spoken to
- appears to recognize name
- understands frequently used words
- understands simple questions

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

Additional receptive language information:

XXXX exhibits an understanding of cause-effect as noted by his ability to use a 2-switch step-scanning program successfully during several trials in therapy. This child is a cooperative worker and will try to do what is requested. He has worked on identifying numbers 1-20 by touching or visually gazing at a number. He identifies other numbers at 80% accuracy by gaze or vocalization. XXXX has also identified shapes circle, triangle, and square with 80% accuracy. He has achieved gazing at colors 100% of the time. XXXX is able to review his daily schedule,

making a choice of a smaller picture that matches a larger picture, by eye gaze or by touching or grabbing the correct picture. He is able to read, identify and verbalize 8/10 sight words (up, come, and, it, for, see, the, me, you, can). Verbalizations are difficult to understand due to articulation difficulties.

## **Expressive Language**

XXXX communicates expressively using the following skills:

- facial expression
- eye gaze
- Vocalizes/approximates words (>3 word utterances)

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

Additional expressive language information:

XXXX's articulation is significantly impeded by his oral motor deficits, resulting in decreased speech intelligibility, informally judged to be understandable less than 25% of the time. XXXX typically communicates his wants and needs by responding to yes/no questions or using eye gaze to indicate his correct answer from a field of two choices. XXXX demonstrates the following communicative skills: smiling/laughing and verbal approximation of about 10 familiar words. XXXX is not able to communicate by pointing or head shaking/nodding. He demonstrates some eye gaze skills, however these are not consistent due to suspected motoric limitations of neck and/or eye stabilization/control. When trialing a communication device using switch access, XXXX exhibited the ability to scan and activate a switch via press and release using slight head and arm extension. Oral-motor: XXXX's oral-motor abilities could not be fully assessed due to his inability to imitate motor movements. Informally, XXXX is able to produce a bilateral smile, however he presents with global muscular weakness which significantly impedes his speech intelligibility. At rest, XXXX presents with an open-mouth posture and constant drooling. He communicates by using words in a quiet voice, or by looking at what he wants. He will also attempt to touch pictures using his left hand although it may be difficult at times.

XXXX demonstrates the following pragmatic language skills:

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

XXXX follows these basic conversation rules:

- uses facial expression
- makes eye contact

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

## **Reading**

Educational status: XXXX is a third grade student in a multiple disabilities classroom.

XXXX's functional reading skill is: single word level

Additional reading comprehension information:

This year, XXXX has worked on identifying letters A-Z and has achieved verbalizing or looking at requested letter 80% of the time identifying: b,c,e,f,k,n,l,k,r, and a. Continued practice is needed for the other letters . Al has worked on reading sight words and has learned 10 sight words: up, come, and, it, for, see, the, me, you, can. He verbalizes 8 of 10 of this words although articulation may be difficult to understand at times. We will continue to review these words and learn some new words.

## **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
- 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):

The team strongly feels that this student needs to begin to use a communication device. He is a smart boy and needs to increase his skills. XXXX exhibits generalized low muscle tone with restrictive passive and/or active motion noted in his trunk, shoulders, elbows, fingers and lower extremities. Right upper extremity movements are more limited than those on the left. He has exhibited the ability to look at objects placed strategically within his visual field. He exhibited the ability to complete two-switch scanning activities on an augmentative speech device that was borrowed on a trial basis. XXXX scanned 2-8 icons using a switch placed near his right cheek, and selected a response on the device with a switch placed on the lateral side of his left hand given verbal cues and physical prompts. During several trials, he chose to engage in visually stimulating or movement activities which were activated by the therapist (e.g. having bubbles blown, being pushed quickly in his wheelchair, watching a toy plane fly through the air, etc.). XXXX will need to have access to assistive technology in order to participate in classroom

activities independently and/or with increased success. He will need physical assistance to meet all his daily life needs and/or to participate in most fine motor activities.

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 unknown impairment in cognitive functioning.

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

### **Cognitive Abilities**

XXXX demonstrates the following cognitive abilities:

- Ability to learn new tasks, including device operation
- Attends to the display
- Attends to tasks
- Recognizes the device can be used to communicate needs and wants

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 the necessary cognitive abilities (attention, memory and problem-solving) to learn to use an SGD to achieve functional communication goals, HOWEVER, formal cognitive testing cannot and should not be performed until he is capable of expressing himself with a speech generating device to indicate responses. XXXX is able to complete simple matching tasks, involving object-object, object-photo/picture, and picture-picture. He is able to match these items even when an exact match is not present. He is learning to match/sort items by similar features or categories. XXXX's attention, memory and problem-solving skills are appropriate for successful use of an SGD.

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 and Scanning

Direct Selection Input

- manual, one hand

## Scanning Input

- Two switch input

## Scanning Method

- Step

## Pattern

- Linear

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

Although restricted, Al uses a modified gross grasp to pick up items that conform to his grasp with his left hand, yet he requires physical assistance to reposition and/or release most objects. He requires hand over hand assistance to control all writing and cutting utensils. His left hand exhibits more control than his right hand. Al exhibits an understanding of cause-effect as noted by his ability to use a 2-switch step-scanning program successfully during several trials in therapy. His auditory system is very keen. At times, he is distracted by noises in the environment. He sees objects placed in a near-by visual field as noted by his ability to look in the direction and maintain a gaze when presented with visual supports on an easel using a visual gaze. He follows people or preferred objects using head versus isolated eye movements. Al exhibits visual nystagmus on occasion.

## **Mobility**

XXXX is non-ambulatory and uses wheelchair self-powered for mobility.

A wheelchair mounting system will be required.

## **Wheelchair**

Make: Freedom Designs Inc.

Model: NXT-38599

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) 14"x14".

A carry case is 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 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.

- Color contrasts are needed to enhance visibility of text or symbols: no
- Number of items per display: 8.
- Ability to hide keys to reduce visual distractibility: yes
- Auditory prompts are needed to assist in message selection: yes

XXXX has generalized decreased visual acuity, likely attributed to his neurologic state. He sees objects placed in a nearby visual field as noted by his ability to look in the direction and maintain a gaze when presented with visual supports on an easel using a visual gaze. He follows people or preferred objects using head versus isolated eye movements. XXXX exhibits visual nystagmus on occasion, as well.

## **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
- community member
- school staff

#### Communication Environments

- home
- medical facility
- community
- school

#### Communication Activities, Abilities and Participation

- express physical needs/wants
- express needs/wants in emergencies
- express feelings and frustrations appropriately
- 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:

Given motoric limitations which impede his ability to point to pictures and intelligibly speak, this child is not a candidate for utilizing low tech pointing boards or sign language. His strong receptive skills and cognitive indicators demonstrate the need for a robust language system which low tech systems simply cannot supply.

#### **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.
- 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.

- dynamic display
- switch or switches

Justification of multiple input methods:

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

- synthesized speech

Justification of selected output features:

Due to XXXX's limited verbal skills, he would benefit from a device to generate digitized or synthesized speech in order to communicate his wants and needs in the classroom setting and at home and increase his functional language. 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.

## **Language Characteristics**

The language characteristics 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: Word Finder, Hide Mode, visual scenes
- provide word-based core vocabulary to support generation of novel utterances
- provide grammar detail to support optimum form of communication

Justification of language characteristics:

XXXX needs a system that is flexible and can be adapted as he continues to expand his utterances and increase his vocabulary. A combination of pre-programmed and programmable icons would allow him to say exactly what he wants to say. At this time he needs to use single words to encourage language development but may benefit from the ability to use additional vocabulary expandability features such as phrases and context specific vocabulary pages 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: hide mode, word finder, visual scenes
- 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:

A wheelchair mount is required for XXXX to transport the device. Due to his physical and language deficits he needs a core based scanning program, and one that is flexible and can be adapted as he continues to expand his utterances and increase his expressive language. The ability to adjust the number of items per display will be beneficial for this student, due to visual difficulties as described earlier.

## **Additional Features and Accessories**

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

- mount
- switches

Justification of Additional Features and Accessories:

XXXX is non-ambulatory, and he sits in a manual wheelchair. He is supported by a head rest, lateral support, chest harness, seat belt, and foot supports. He needs a device that can be mounted to his wheelchair for easy access.

# 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 12	Saltillo	Freedom Switch (2)
Accent 1000	Prentke Romich Company	Freedom Switch (2)
Tobii T10	Tobii-Dynavox	Jellybean switches

## Procedures Used for Evaluating the SGDs

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

During several trials, XXXX exhibited an understanding of cause-effect as noted by his ability to use a 2-switch step-scanning program successfully during consultations provided by the AAC specialist from PRC and during therapy time each week. XXXX step scanned 2-8 icons using a switch placed near his right cheek, and selected a response on the device with a switch placed on the lateral side of his left hand given verbal cues and physical prompts. He chose to engage in visually stimulating or movement activities which were activated by the therapist (e.g. having bubbles blown, being pushed quickly in his wheelchair, watching a toy plane fly through the air, etc.).

## Pictures or Symbols used

- Number per page: 2
- Size: 1/2 - 1"
- Type: SymbolStix
- Number of pages: 8-84

## Language formulating messages

- single hit for one phrase or message

## Words

Using the recommended SGD, XXXX was able to generate these types of messages: single word/symbol

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

## **Outcome of the SGD Evaluation**

The NovaChat 12 was selected as the most appropriate SGD for XXXX for the following reasons:

XXXXX exhibits an understanding of cause-effect as noted by his ability to use a 2-switch step-scanning program successfully during several trials in therapy. He scanned 2-8 icons using a switch placed near his right cheek, and selected a response on the device with a switch placed on the lateral side of his left hand given verbal cues and physical prompts. During several trials, he chose to engage in visually stimulating or movement activities which were activated by the therapist (e.g. having bubbles blown, being pushed quickly in his wheelchair, watching a toy plane fly through the air, etc.). This child would benefit from the core vocabulary pages available in several vocabulary files on the NovaChat 12; while learning core vocabulary within the vocabulary file, this child will still be able to communicate wants and needs, participate in conversational exchanges, and communicate for other reasons using the scanning vocabulary file. The use of core vocabulary will allow for more novel and generative communication across various settings. This will allow XXXX to continue to develop communication skills while simultaneously learning and expanding his/her expressive vocabulary skills.

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

The Accent 1000 was judged to be too small for XXXX to easily see once he progressed up to the Pathway level and beyond using the CoreScanner language program. While it can be mounted and is portable, it is simply too small of a display.

The Tobii T10 does not offer a specific language program built for scanners, allowing individual word choices that progress and allow for generative language production. Onsite training, set up and free local regional classes are not frequently offered by the Tobii Company and this will be a negative factor for XXXX's device use as the years go by and he progresses and needs support.

The selected device is recommended for purchase.

## **Impact of recommended SGD on Client's Communication**

Without access to a high tech, dynamic communication device capable of switch access and customized with vocabulary specific to this population, XXXX will not be able to meet his potential. He needs this device to achieve personal closeness to those in his family and community, to express medical concerns and symptoms, and to make progress in the educational system.

## **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:

- dynamic display
- switch or switches

#### Output:

- digitized speech
- 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

#### 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: Word Finder, Hide Mode, visual scenes
- 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

#### Additional Features and Accessories:

- mount

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>
NovaChat 12	E2510: Synthesized, multi access, multi message	Salttillo Corporation 2143 Township Road 112 Millersburg, OH 44654
Wheelchair mounting kit	E2512: Wheelchair Mounts	Salttillo Corporation 2143 Township Road 112 Millersburg, OH 44654
Red and Green Freedom Switches	E2599: Accessories	Salttillo 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.

<b>Functional Communication Goal</b>	<b>Estimated Completion Time</b>	<b>Short Term</b>	<b>Long Term</b>
By using alternate communication (eye gaze, vocalizations, or technology), XXXX will select single icons via one-hit for at least 3 core words (i.e. 'go, help, eat') for 4/5 measured opportunities given no more than 2 cues (visual, verbal, gestural,	> 3 months	Yes	No
By using alternate communication (eye gaze, vocalizations, or technology) XXXX will select single icons via one-hit for at least 2 fringe words (i.e. 'ball, musical toy,' etc.) for 4/5 measured opportunities given no more than 2 cues (visual, verbal	> 3 months	Yes	No

## **Support, Treatment Plan and Signature**

### **Client/Family Support of the Speech Generating Device**

XXXX's Immediate Family was 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, (INSERT PHYSICIAN NAME AND CONTACT INFO HERE), on (INSERT DATE 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 weekly treatment sessions for at least 6 months of time 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:

ASHA Certification:

State License Number:

Speech Language Pathologist (SLP) Signature

Date