VHA PROSTHETIC CLINICAL MANAGEMENT PROGRAM (PCMP)
CLINICAL PRACTICE RECOMMENDATIONS
AUGMENTATIVE & ALTERNATIVE COMMUNICATION DEVICES (AAC SYSTEMS)

I. BACKGROUND

VHA's Prosthetic and Sensory Aids Service Strategic Healthcare Group was directed by the Under Secretary for Health to establish a Prosthetic Clinical Management Program (PCMP). The objectives are to coordinate the development of recommendations for prosthetic prescription practices and contracting opportunities to assure technology uniformity and ease of access to prosthetic prescriptions and patient care that will lead to valid outcome measures and analysis for research purposes.

A work group with input from selected clinicians with expertise in the area convened to recommend a policy regarding selection of augmentative and alternative communicative systems for veterans who are unable to meet their communicative needs through traditional methods. The scope of our work group is focused on electronic augmentative communicative systems. Low tech non-electronic devices were not included in the scope of this work group assignment.

AAC refers to "an area of clinical, research, and educational practice for speech-language pathologists and audiologists that attempts to compensate and facilitate, temporarily or permanently, for the impairment and disability patterns of individuals with severe expressive, and/or language comprehension disorders. AAC may be required for individuals demonstrating impairments in gestural, spoken, and/or written modes of communication."(Asha, 1990)

II. ROLES AND RESPONSIBILITIES: The speech-language pathologist practicing within the area of AAC shall:

A) Recognize and hold paramount the needs and interests of individuals who may benefit from AAC;
B) Acquire and maintain the knowledge and skills to provide quality professional services;
C) Utilize a service delivery approach that incorporates the goals, objectives, skills, and knowledge of various disciplines, as well as that of the individual and family members;
D) Implement a multimodal approach to facilitate effective communication;
E) Facilitate the individual's integration of AAC use in daily life;
F) Acquire and maintain knowledge about prosthetics issues as they relate to AAC systems and services, education and research; and
G) Recognize the need for and attempt to promote when possible basic and applied research in AAC. (Asha, 1990)

III. POLICY

The purpose of the clinical practice recommendations is to assist practitioners in clinical decision-making, to standardize and improve the quality of patient care, and to promote cost-effective prescribing. Much of the following information was provided from a review of the current Medicare Guidelines for AAC, which are listed in the references.

IV. DEFINITIONS: To avoid confusion, the current Medicare definitions are provided below and will be referenced throughout this document:

Speech generating devices (SGDs) are defined as speech aids that provide individuals with severe speech impairment the ability to meet, to the maximal level possible, their functional speaking needs.

Speech-language pathologists (SLPs) are licensed health professionals educated at the graduate level in the study of human communication, its development and its disorders. The SLP must hold a Certificate of Clinical Competence (CCC) in speech-language pathology from the American Speech-Language-Hearing Association.

Digitized speech (E2500, E2502, E2504, E2506) sometimes referred to as devices with "whole message" speech output, utilize words or phrases that have been recorded by an individual other than the SGD user for playback upon command of the SGD user.

Synthesized speech (E2508, E2510), unlike the prerecorded messages of digitized speech, is a technology that translates a user's input into device-generated speech. Users of synthesized speech SGDs are not limited to prerecorded messages but rather can independently create messages as their communication needs dictate.

E2510 devices require that the user make physical contact with a keyboard, touch screen or other display containing letters. Devices that have the capability to generate both digitized and synthesized speech must be coded E2508 or E2510, depending on the method of synthesized speech formulation and device access.

E2510 devices permit the user multiple methods of message formulation and multiple methods of device access. Multiple methods of message formulation must include the capability for message selection by two or more of the following methods: letters, words, pictures or symbols. Multiple methods of access must include the capability to access the device by two or more of the following: direct physical contact with a keyboard or touch screen, indirect selection techniques with a specialized access device such as a joystick, head mouse, optical head pointer, switch, light pointer, infrared pointer, scanning device, or Morse Code. Devices that have the capability to generate both digitized and synthesized speech must be coded E2508 or E2510 depending on the method of synthesized speech formulation and device access.

Speech generating software programs (E2511) enable a laptop computer, desktop computer or personal digital assistant (PDA) to function as an SGD. For the purposes of VHA Prosthetics E2511 includes the software with the computer system.

Personal digital assistants (PDAs) are handheld devices that integrate the functions of a small computer with features such as a cell phone, personal organizer, electronic mail, pager, etc. Information may be input via a pen-based system using a stylus and handwriting recognition software, keyboard or downloaded from a personal computer using special cables and software.

Mounting systems (E2512) are devices necessary to place the SGD device, switches and other access devices within the reach of the patient.

Accessories for speech-generating devices (E2599) include, but are not limited to, access devices that enable selection of letters, words or symbols via direct or indirect selection techniques. Examples of access devices include, but are not limited to, optical head pointers, joysticks, switches, wheelchair integration devices and SGD scanning devices. In addition, replacement accessories such as batteries, battery chargers and AC adapters are included in this code.

V. PROSTHETICS COVERAGE OF THE DEVICE: For any item to be approved by VHA Prosthetics, it must:

A) Be reasonable and necessary for the diagnosis or treatment of illness or injury and be able to improve the cognitive/communicative functioning of the individual.

B) Be issued as an item loaned for use as long as it effectively augments the individual's communication with the understanding that it will be returned to the VHA at such time as it is no longer of benefit to the individual.

VI. CRITERIA FOR DOCUMENTING MEDICAL NECESSITY: The following criteria are needed to document medical necessity to submit a prosthetics request for a speech generating device (SGD—E2500-E2511):

A) Prior to the delivery of the SGD, the patient has had a formal evaluation of their cognitive and communicative abilities by a speech-language pathologist SLP). Please see **Attachment A** for the Medicare Funding of AAC Technology Assessment/ Application Protocol and the Medicare Checklist to assist in the process of conducting an AAC evaluation and incorporating the findings into a report. Please see **Attachment B** for a sample report. Please see **Attachment C** for the 2004 Medicare Speech Generating Device Fee Schedule, which was provided by Joanne P. Lasker, Ph.D., CCC-SLP, from Florida State University Department of Communication Disorders, correspondence, 3/23/04. The following are the minimum elements required:

Speech generating software programs (E2511) enable a laptop computer, desktop computer or personal digital assistant (PDA) to function as an SGD. For the purposes of VHA Prosthetics E2511 includes the software with the computer system.

Personal digital assistants (PDAs) are handheld devices that integrate the functions of a small computer with features such as a cell phone, personal organizer, electronic mail, pager, etc. Information may be input via a pen-based system using a stylus and handwriting recognition software, keyboard or downloaded from a personal computer using special cables and software.

Mounting systems (E2512) are devices necessary to place the SGD device, switches and other access devices within the reach of the patient.

Accessories for speech-generating devices (E2599) include, but are not limited to, access devices that enable selection of letters, words or symbols via direct or indirect selection techniques. Examples of access devices include, but are not limited to, optical head pointers, joysticks, switches, wheelchair integration devices and SGD scanning devices. In addition, replacement accessories such as batteries, battery chargers and AC adapters are included in this code.

V. PROSTHETICS COVERAGE OF THE DEVICE: For any item to be approved by VHA Prosthetics, it must:

A) Be reasonable and necessary for the diagnosis or treatment of illness or injury and be able to improve the cognitive/communicative functioning of the individual.

B) Be issued as an item loaned for use as long as it effectively augments the individual's communication with the understanding that it will be returned to the VHA at such time as it is no longer of benefit to the individual.

VI. CRITERIA FOR DOCUMENTING MEDICAL NECESSITY: The following criteria are needed to document medical necessity to submit a prosthetics request for a speech generating device (SGD—E2500-E2511):

A) Prior to the delivery of the SGD, the patient has had a formal evaluation of their cognitive and communicative abilities by a speech-language pathologist SLP). Please see **Attachment A** for the Medicare Funding of AAC Technology Assessment/ Application Protocol and the Medicare Checklist to assist in the process of conducting an AAC evaluation and incorporating the findings into a report. Please see **Attachment B** for a sample report. Please see **Attachment C** for the 2004 Medicare Speech Generating Device Fee Schedule, which was provided by Joanne P. Lasker, Ph.D., CCC-SLP, from Florida State University Department of Communication Disorders, correspondence dated 3/23/04. The following are the minimum elements required:

1) Current communication impairment, including the type, severity, language skills, cognitive ability, and anticipated course of the impairment;

2) Assessment of whether the individual's daily communication needs could be met using other natural modes of communication;

3) Description of the functional communication goals expected to be achieved and treatment options;

4) Rationale for selection of a specific device and any accessories;

5) Demonstration that the patient possesses a treatment plan that includes a training schedule for the selected device;

6) Demonstration that the patient demonstrates the cognitive and physical abilities to effectively use the selected device and any accessories to communicate;

7) Information regarding the functional benefit to the patient of the upgrade compared to the initially provided SGD; for a subsequent upgrade to a previously issued SGD.

B) The patient's medical condition is one resulting in a severe expressive impairment.

C) The patient's communication needs cannot be met using natural communication methods.

D) The patient's communication impairment will benefit from the device ordered.

E) The SLP's comprehensive AAC report and the computerized Prosthetics request will include the specific ordering information for the recommended SGD and will be entered in CPRS/ GUI and await review and signature by the referring physician prior to Major Medical review.

F) The SLP performing the patient evaluation may not be an employee of or have a financial relationship with the supplier of the SGD.

VII. SPECIFIC CODING GUIDELINES:

A) Codes E2500-E2511 include the device, any applicable software, batteries, battery chargers, and AC adapters. These items will not be billed separately.

B) Upgrades to E2511 are subsequent versions of a speech generating software program that may include enhanced features or other improvements. Upgrades to E2511 must be coded E2511.

B) Upgrades to E2511 are subsequent versions of a speech generating software program that may include enhanced features or other improvements. Upgrades to E2511 must be coded E2511.

C) Mounting systems necessary to place the SGD device, switches and other access devices within the reach of the patient must be coded E2512.

D) Accessories (E2599) are issued when the basic criteria (1-6) for the base device are met and the medical necessity for each accessory is clearly documented in the formal evaluation by the SLP.

E) Upgrades to E2500-E2511 are subsequent versions of the device's software program or memory modules that may include enhanced features or other improvements. Upgrades to E2500 to E2511 should be coded as the same number.

F) A system that is software based on a laptop or PDA system (E2511) that functions like a SGD is covered in its entirety.

G) Accessories to SGDs such as access devices should be coded E2599. There should be no separate billing of any software, interfaces, cables, adapters, interconnects, or switches necessary for the accessory to interface with the SGD (E2500 through E2511).

VIII. REFERENCES

American Speech-Language-Hearing Association. (1991). Augmentative and alternative communication, Asha, 33 (Suppl.5), 8. (found in Volume 3 of ASHA Desk Reference on ASHA's website)

American Speech-Language-Hearing Association. (1991). Report: Augmentative and alternative communication. Asha, 33 (Suppl.5), 9-12. (found in Volume 3 of ASHA Desk Reference on ASHA's website)

American Speech –Language-Hearing Association. (2004). Roles and Responsibilities of Speech-Language Pathologists with Respect to Augmentative and Alternative Communication: Technical Report.
(found in Volume 3 of ASHA Desk Reference on ASHA's website)

American Speech-Language-Hearing Association. (2002). Augmentative and alternative communication: knowledge and skills for service delivery. ASHA Supplement 22, 97-106. (found in Volume 3 of ASHA Desk Reference on ASHA's website)

American Speech-Language-Hearing Association 2004 Desk References Vol. 1-4 on ASHA website (www.ASHA.org)

V. References

A. American Speech-Language-Hearing Association (1987). The role of speech-language pathologists in the habilitation and rehabilitation of cognitively impaired individuals: A report to the subcommittee on language and cognition. *ASHA,* 29, 53-55.

B. Sohlberg MM, Mateer CA. *Cognitive rehabilitation: An integrative neuropsychological approach.* New York: The Guilford Press, 2001.

C. Parente R, Herrmann DJ, Brady CM. *Retraining cognition: Techniques and applications,* 2nd. Ed., Austin, Tx: Pro-ed, 2003.

APPROVED/DISAPPROVED:

Jonathan B. Perlin, MD, PhD, MSHA, FACP
Acting Under Secretary for Health

JUN 1 8 2004
Date

Attachment A

Medicare Funding of AAC Technology

Assessment/Application Protocol

Updated 5/25/01

www.aac-rerc.com

The information compiled below follows guidelines set forth in the RMRP. The Medicare Implementation Team (MIT) members prepared this information to support SLPs in their efforts to submit successful funding requests on behalf of Medicare beneficiaries. The MIT hopes you find the information helpful. Please note some links are not yet active, and all links take you to the same page, but to different locations within the page. We ask that you check back regularly as we will add and attempt to clarify information as needed. We recommend that you print out the Protocol and the Links pages. For examples of reports, click here

Medicare Request for Speech Generating Device (SGD) Funding	**Explanation & Elaboration**
I. Demographic Information	Patient Name Medicare Number Date of Birth Medical Diagnosis Date of Onset Other helpful information includes: Patient's contact information Physician's contact informaiton SLP's contact information Patient's primary support contact

	information Date of SLP evaluation

II. Current Communication Impairment

A. General Statements

1. Impairment Type & Severity This section should explicitly	1. Indicate type of communication impairment 2. Describe impairment severity
2. Vision Status This section should explicitly provide information about the person's visual status as it relates to using a SGD and accessories. The report should state, "The patient possesses the visual abilities to effectively use a SGD to communicate functionally."	1. Describe the communicator's vision relative to using a SGD (along a continuum from normal vision to blindness). 2. Include the following elements if/when pertinent to SGD use/selection: Acuity, visual tracking, visual field, lighting needs, angle of view, size of symbols, contrast (color, detail) and spacing.
3. Physical Status This section should provide information about the person's physical skills and abilities as they relate to using a SGD and accessories. The report should state, "The patient possesses the physical abilities to effectively use a SGD and required accessories to communicate.	1. Describe pertinent considerations regarding motor skills, ambulatory status, positioning and seating. 2. Describe how person will access the SGD (direct selection, scanning) and the person's switch access requirements. 3. Describe if accommodations may be required over time to deal with changes in physical access.
4. Language Skills This section should explicitly provide information about the person's language skills and abilities as they	Describe the level of linguistic impairment (no impairment to severe language impairment) as it relates to the person's ability to use a SGD.

communicate functionally."	generated by a SGD.
2. Vision Status This section should explicitly provide information about the person's visual status as it relates to using a SGD and accessories. The report should state, "The patient possesses the visual abilities to effectively use a SGD to communicate functionally."	1. Describe the communicator's vision relative to using a SGD (along a continuum from normal vision to blindness). 2. Include the following elements if/when pertinent to SGD use/selection: Acuity, visual tracking, visual field, lighting needs, angle of view, size of symbols, contrast (color, detail) and spacing.
3. Physical Status This section should provide information about the person's physical skills and abilities as they relate to using a SGD and accessories. The report should state, "The patient possesses the physical abilities to effectively use a SGD and required accessories to communicate.	1. Describe pertinent considerations regarding motor skills, ambulatory status, positioning and seating. 2. Describe how person will access the SGD (direct selection, scanning) and the person's switch access requirements. 3. Describe if accommodations may be required over time to deal with changes in physical access.
4. Language Skills This section should explicitly provide information about the person's language skills and abilities as they relate to using a SGD and accessories.	Describe the level of linguistic impairment (no impairment to severe language impairment) as it relates to the person's ability to use a SGD. Consider describing: • performance on any language assessments completed (e.g., BDAE, WAB, picture description). • competency or ability to develop functional language skills (e.g., form, content, use)

	skills (e.g., form, content, use). • type and level of symbol use by the individual. Does person require pictographic symbols, words, letters, and/or a combination of symbols? • linguistic capacity to formulate language / messages (e.g., whole vs. part) • level of independence in formulating messages using language.
5. Cognitive Skills This section should explicitly provide information about the person's cognitive skills and abilities as they relate to the use of a SGD and accessories. The report should state, "The patient possesses the cognitive/linguistic abilities to effectively use a SGD to communicate and achieve functional communication goals."	• Describe the level of cognitive impairment (no impairment-significant cognitive impairment) as it relates to the person's need for and ability to use a SGD. • Describe the person's attention, memory, and problem-solving skills as they relate to using an SGD to enhance or develop daily, functional communication skills. Click Here For Example of Traumatic Brain Injury Cognitive levels (Rancho) Click Here For Aphasia Example
III. Daily Communication Needs A. Specific Daily Functional Communication Needs This section should list the person's daily functional communication needs in areas described.	Document specific, daily functional communication needs in any of the three areas listed below. 1. Communication to enable person to get physical needs met. Click Here for Examples 2. Communication to enable person to carry out family and community interactions.

	Click Here for Examples 3. Communication to enable person to obtain necessary medical care and participate in medical decision-making. Click Here for Examples Note: It is reasonable to supplement the categories by considering daily communication situations, environments, partners, and specific messages.
B. Ability to meet communication needs with non-SGD treatment approaches: This section should document why the patient is unable to fulfill daily functional communication needs using natural speech (or speech aids) and non-SGD treatment approaches. The report should state, "The patient's daily functional communication needs cannot be met using natural communication methods or low-tech/no-tech AAC techniques because of _____ _____(be specific).	1. Discuss success of speech therapy (to date and future prognosis) without a SGD. 2. Discuss the individual's ability to use low-tech strategies and natural modes of communication to meet daily functional communication needs. 3. Discuss why a SGD is required in addition to, or instead of low-tech strategies and natural speech? 4. Show explicitly that other forms of treatment have been considered and ruled out. 5. Mention issues related to communicating with primary partners and caregivers in specific contexts.
IV. Functional Communication Goals This section should explicitly state the daily functional communication treatment goals that will be met using a SGD. NOTE: This is a very important section. Functional goals are key to demonstrating the need for ongoing treatment. They are also key to demonstrating positive outcomes with SGD use and why a particular SGD will benefit the individual and enable him / her to achieve functional communication goals. SLPs should prepare immediate term, short-to-mid	1. List immediate, short term and long term functional communication goals and a timetable for completion of these goals. 2. Goals should correspond to specific daily functional communication needs (including specific contexts and communication partners as well as communication functions: e.g. needs, greetings, etc.) and illustrate how the patient will benefit from the acquisition of and training on the SGD. Click Here For Examples Of Functional Communication Goals

term and long-term functional goals.	Goals
V. Rationale for Device Selection This section will explain why certain device features are required. The rationale will relate the person's skills and abilities as described in Section II . This section provides data that leads first to the selection of a specific device code and second, to a specific device within that code, as well as specific accessories. The report should state, "This individual requires a speech generating device with (list specific features) to meet the person's functional communication goals."	In order to make these decisions, SLPs may work with OTs, PTs and Rehab Engineers and use AAC devices, computer or manual simulations to gather pertinent data.

A. General Features of Recommended SGD and Accessories

1. Input Features/ Selection Technique	a. Direct Selection Click Here For Areas To Consider b. Scanning Click Here For Areas To
3. Output Features	a. Voice Output Click Here For Areas To Consider b. Visual Display Click Here For Areas To Consider c. Feedback Click Here For Areas To Consider
4. Other Features (Note: These relate to AAC accessories)	a. Portability: Size & weight, transport/mount, case/carrier requirements b. Battery time required

	c. Vocabulary Expansion and Rate Enhancement Click Here For Areas To Consider
3. Output Features	a. Voice Output Click Here For Areas To Consider b. Visual Display Click Here For Areas To Consider c. Feedback Click Here For Areas To Consider
4. Other Features (Note: These relate to AAC accessories)	a. Portability: Size & weight, transport/mount, case/carrier requirements b. Battery time required c. Other
B. Recommended Medicare Device and Accessory Codes Note: There are coverage limitations and issues related to whether a manufacturer/supplier will accept assignment	Refer to the accompanying chart to identify specific codes for SGD categories and accessory categories that will enable the individual to achieve functional communication goals. Click Here For Frequently Asked Questions To Learn More About Considerations related to Coverage Issues .
C. Description of equipment and procedures used during any demonstrations of the recommended SGD and any other SGDs and accessories.	Include evidence that the individual was present and actively participated in the assessment process. Discuss assessment outcomes that demonstrate the person's ability to use the SGD and recommended accessories

D. SGD and accessories recommended. The report should state, "The individual's ability to achieve his/her functional communication goals requires the acquisition and use of the (name the device) and (name the specific accessories)." This SGD represents the clinically most appropriate device for (name of beneficiary).	List the specific SGD and accessories and include rationale for why this SGD and any accessories being requested will enable the patient to achieve functional communication goals, as stated earlier in the report.
E. Patient/family support of SGD	Discuss participation of the family/caregiver/advocate and state that they agree to the selected SGD and will support the equipment and its use for daily communication.
F. Physician involvement statement. The report should say, "This report was forwarded to the treating physician (Name, address, phone number) on _____(date). so that (he/she) can write a prescription of the recommended SGD and accessories."	Note. The date that the SLP forwards the AAC device assessment report should be BEFORE the date on the doctor's prescription.
VI. Treatment Plan Address all functional communication goals previously stated for the beneficiary and identify the plan for achieving these goals using the SGD and accessories.	a) Frequency of Speech-Language Pathology Treatment b) Schedule for Functional Goal Achievement • Operational competency achievement dates • Functional communication goals • achievement dates • Treatment plan with a training schedule for the selected device and accessories. c) Type of Treatment (Individual vs. Group) d) Projected Frequency of Reassessment e) Follow-up Requirements for SGD and accessories • individual(s) responsible for

	programming • individual(s) responsible for troubleshooting Click Here For Examples Of Treatment Plans
VII. Functional Benefit of Upgrade This section is required only if the SLP is requesting an upgrade of equipment.	To upgrade a previously issued SGD, provide information regarding: a) the features or capabilities of the upgrade as compared to existing equipment b) the additional daily functional communication goals the patient can achieve with the upgrade as compared to existing equipment and c) the importance of the patient's ability to achieve functional communication goals.
VIII. SLP Assurance of Financial Independence and Signature The report should state, "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 # Disclaimer statement

Attachment B

Example 70 YEAR OLD WOMAN WITH PROFOUND DYSARTHRIA SECONDARY TO ALS

Facility Name
Department of Speech-Language Pathology
Facility Address and Phone Numbers
Prosthetics Funding Request
FOR SPEECH GENERATING DEVICE (SGD)

I. DEMOGRAPHIC INFORMATION

Patient's Name: Jane Doe
Date of Birth: 0/00/31
Address:

Social Security #:
Phone Numbers:

Patient's Primary Contact Person:
Address:

Relationship to Patient:
Phone Numbers:

Medical Diagnosis: Amyotrophic Lateral Sclerosis 335.20
DX Codes: V57.3; V57.89; 784.5; 784.69; 335.20 (sample per Dr. Dennis' request)
Procedure Codes: 92607; 92608 X 3 (sample)
Time: 150 minutes (sample)

Date of Onset: Diagnosed July, 1999; first symptoms noted 4/99 in gait and balance
Date of Evaluation:

Date of Request:

Physician:
Speech-Language Pathologist:

Phone Number:
Phone Number:

II. CURRENT COMMUNICATION IMPAIRMENT

A. General Statement

Impairment Type & Severity (ICD-9 Diagnostic Code: 784.3)
Secondary to ALS, Mrs. _____ presents with a profound dysarthria and is functionally nonspeaking. Produces differentiated vowels with varying intonation. Imitates monosyllabic words, with referent known, with 10% intelligibility.
Oral motor control limited to gross movements only, and these movements are imprecise, reduced in range and executed slowly (e.g. open - close mouth, protrude tongue). Patient receives nutrition through gastrostomy tube. Spontaneous speech is limited to vocalizations.
Anticipated Course of Impairment
Based on the Severe Dysarthria due to Amyotrophic Lateral Sclerosis Staging Scale (a

5-point scale, with 1 being no detectable speech disorder and 5 being no useful speech), patient's speech is characteristic of Stage 5 - No useful speech. Given the patient's current status and progressive nature of ALS, it is anticipated that Mrs. ___'s condition will deteriorate further.

B. Comprehensive Assessment

Hearing

No problems with hearing noted or reported. Patient passes pure tone audiometric screening for octave frequencies at 25 dB from 500- 4000 Hz. Attends to and discriminates natural and synthetic speech at conversational loudness levels. Husband may have slight hearing loss, although his hearing has yet to be formally assessed. Husband successfully discriminated synthetic speech n SGD, at sentence level, given occasional repetition (of spoken message) and reliance on visual display. Patient and primary communication partner possess hearing abilities to effectively use SGD to communicate functionally.

Vision

Patient wears bifocal glasses at all times. Shows no problems with visual attention, scanning, tracking, or acuity with glasses on. Discriminates ¼" text on display positioned at midline, at a distance of approximately 18", without difficulty. Possesses visual abilities to effectively use SGD to communicate functionally.

Physical

The patient is wheelchair dependent. Has an electric wheelchair (Jazzy 1100, with a right joystick controller). Drives chair independently and safely. Seating tolerance approximates 2 -3 hours. Patient referred to physical therapist for recommendations to improve seating comfort and tolerance. Patient spends several hours/day in a standard recliner chair. Needs access to SGD from both wheelchair and recliner.
Patient reports weakness in both upper extremities. Patient is right hand dominant. Able to type on standard keyboard using middle right finger and left index finger. Types quickly and with few errors. No indications of fatigue or discomfort after typing several sentences. Does not require keyguard at this point in time. Accommodations may be required as ALS progresses (e.g. keyguard, scanning module/switch). Patient possesses the physical abilities to effectively use a SGD with noted accessories to communicate functionally.

Language Skills

Informal assessment reveals oral and written language skills within functional limits. Patient answers abstract yes/no questions with 100% accuracy and follows multistage directions with 100% accuracy. Answers multiple choice questions about a paragraph

read silently with 100% accuracy. Types grammatically correct, syntactically complex sentences. Formulates meaningful written paragraphs independently.

Cognitive Skills

Patient retains task instructions without difficulty. Recalls 100% (5/5) of messages stored under abbreviations. Identifies logical codes to abbreviate messages. Spontaneously uses strategies to aid message production (e.g. abbreviates words) Consistently gives partner feedback (using SGD and nonverbal cues) to indicate if message is accurately interpreted. Corrects and clarifies messages as appropriate. Spontaneously and appropriately shifts between communication approaches to maximize communication efficiency. Demonstrates ability to use word prompting and prediction. Possesses cognitive/linguistic abilities to effectively use SGD to communicate and achieve functional goals.

III. DAILY COMMUNICATION NEEDS

A. Specific Daily Communication Needs

Primary communication situations involve 1:1 and small group situations. Primary environments are home and medical appointments. Primary communication partners include husband, daughter, friends, paid caregivers, and medical staff. Specific message needs include expressing needs, making requests, asking questions, offering information, and expressing feelings/opinions. Patient expresses strong desire to maintain her role as a decision maker in the home, to socialize with friends and family, and to communicate directly with medical staff regarding her disease and treatment.

B. Ability to Meet Communication Needs with Non-SGD Treatment

Patient has previously received speech maintenance therapy. However, given the current
severity of the patient's speech impairment, coupled with the progressive nature of ALS, therapy to improve speech production is no longer indicated or appropriate.
The patient relies on yes/no responses, vocalizations, facial expressions, simple gestures
(e.g. pointing to items in environment), alphabet board and desk top computer. Unaided approaches are effective for calling attention and indicating very basic needs
(e.g. pointing to a cup to request drink). The alphabet board is used to generate novel messages during face-to-face conversations with husband, daughter and a few close friends. The board is adequate for basic needs that require a 2 or 3 word message; messages exceeding 2-3 words are difficult for partner to decode/retain. The board also requires the partner to be standing beside the patient as she composes her message. This can be tedious and time consuming for all partners and is not tolerated by medical personnel. The board is ineffective in-group social situations, because not all partners can see the board and follow along as the patient spells. The board is not effective with

hired caregivers because they cannot read English. The desktop computer is used to prepare messages in advance for either the husband or daughter. The computer is not portable nor does it have voice output.

The patient's current communication approaches do not permit her to convey the type and complexity of information in the environments and with those partners with whom she interacts on a daily (i.e. husband, daughter, care givers) or intermittent basis (i.e. physicians, friends).

IV. FUNCTIONAL COMMUNICATION GOALS

Upon receipt of an SGD, therapy will target the following goals. Ms.___(Patient) will:

- Demonstrate ability to master basic maintenance and operations of SGD (on-off, adjusting menu features such as voice and display) with 100% accuracy (within 2 weeks)
- Demonstrate ability to program stored messages independently with 100% accuracy (within 2 weeks)
- Convey basic needs/make requests to caregivers, by spelling or retrieving pre-programmed message on SGD, independently and with 100% accuracy (within 2 weeks).
- Initiate social greetings, offer information, ask questions, express feelings and opinions through spelling and retrieving stored messages on SGD, during 1:1 and group situations with familiar and unfamiliar partners, independently and with 100% accuracy (within 3 weeks).
- Use strategies on SGD to expedite message production when sharing information or asking questions of medical personnel, independently and with 100% accuracy (within 3 weeks).

V. RATIONALE FOR DEVICE SELECTION

A. General Features of Recommended SGD and Accessories

Based on the above noted comprehensive assessment, daily communication needs, and functional communication goals, the patient requires SGD with the following features:

Input/Message Characteristic Features:

- Direct selection with index and middle fingers of both hands/standard or mini keyboard (patient prefers QWERTY keyboard)
- Flexibility to accommodate changes in physical access (i.e. alternative keyboard, scanning)
- Accessible from multiple positions (i.e. wheelchair, Lazy Boy)
- Alphabet based with access to stored messages (i.e. abbreviation expansion)
- Access to word prompting or prediction to be used as physical access declines

Output:

- Text-to-speech speech synthesis (given that patient has novel message needs and is relying on spelling as primary means to generate messages)
- Two-way visual display to aid husband (who has suspected hearing loss) to interpret messages
- Capability to facilitate communication at a distance.

Other features:

- Portable to accommodate conversational needs in various locations within home and at medical appointments
- Long lasting battery to ensure device is operational in various locations and to minimize need to be close to electrical outlet.

B. Recommended Medicare Device Category and Accessories Codes

The individual's ability to meet daily communication needs will benefit from acquisition and use of the SGD Category E2508 and equipment that enable device to be mounted from SGD accessory code (E2599).

C. Trials with SGDs

Patient participated in trials with 3 SGDs in Category E2508 that have the input and output features similar to those delineated above. The SGDs included DynaMyte/DynaVox 3100, the Link, and the LightWRITER SL35. Both current and future communication needs were considered as her physical condition is likely to deteriorate.

1. DynaMyte/DynaVox 3100. Patient had difficulty with glare and motor access on the DynaMyte and DynaVox.
2. Link. After demonstration only used the Link to generate novel messages. Used all function keys without difficulty. Given the battery limitations, the inability to alter access methods, and the small visual display the Link is not an optimal solution.
3. LightWRITER SL35. The patient independently utilized the LightWRITER to communicate her needs. Spelled lengthy, complex messages without difficulty. Used function keys with 100% accuracy and recalled all messages stored under abbreviations. The husband successfully interpreted all of the patient's messages relying on speech output and the visual display. Any trial re: future features. I think we should include something that relates to scanning, e.g., patient was shown scanning features and was able to select messages using linear scanning.

D. Recommended SGD and Accessories

Based on comprehensive assessment and SGD trials, it is recommended that the patient be fitted with the LightWRITER SL35 and wheelchair mount to secure the device and allow independent access. The recommended wheelchair mount is designed to accommodate the LightWRITER and will enable her to use the device throughout most of the day.

Part Number	Description
SL35-LQFDO	LightWRITER SL35 with dual fluorescent screen, Qwerty keyboard and raised keys
039-0319-01 MH-4	W/C Mini-Mount, 1'x2' tube, Pin Release, 7/8" diameterFrame clamp
039-0145-00 AF-55	GEWA Extrusion, 6", Tray Mount/Tube Clamp

LightWRITER and accessories are available from:
ZYGO Industries, Inc. 800 234-6006 or 503 684-6006
P.O. Box 1008 503 684-6011 fax
Portland, OR 97207-1008

E. Patient and Family Support of SGD

The patient and her husband demonstrate motivation to maintain SGD. Have established basic skills with the LightWRITER. The patient understood the pros/cons of different devices and identified the LightWRITER as the optimal device for her needs.

F. Physician Involvement Statement

A copy of this report has been forwarded to the patient's treating physician (DR. ... #XXX) on _____ (date) for review and prescription.

VI. TREATMENT PLAN

Upon receipt of SGD, it is recommend that the patient receive 45 minutes of individual therapy and one hour of group therapy weekly for 8 weeks (total 16 sessions). These sessions will address goals listed in Section IV of this report. An additional two hours of training are recommended to train caregivers to program the device.

V. SIGNATURES / SLP ASSURANCE OF FINANCIAL INDEPENDENCE

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

_____

XXX MS CCC-S
Speech Language Pathologist
ASHA #
State Lic.
Note: Signatures of other team members are not required by Medicare, but should be included when available.

Reference: Medicare Guidelines/ Sample Reports http://aac-rerc.com-- Medicare Funding of AAC Technology. Information obtained on 4/8/04. Supported in part by the National Institute on Disability and Rehabilitation Research (NIDDR).

ATTACHMENT C:

2004 MEDICARE SPEECH GENERATING DEVICE FEE SCHEDULE

	Speech Generating Device	Speech Generating Device	Speech Generating Device	Speech Generating Device	Speech Generating Device	Speech Generating Device	Speech Generating Software
Code	E2500 (formerly K0541)	E2502 (formerly K0615)	E2504 (formerly K0616)	E2506 (formerly K0617)	E2508 (formerly K0543)	E2510 (formerly K0544)	E2511 (formerly K0545)
Speech Output	Digitized	Digitized	Digitized	Digitized	Synthesized	Synthesized	Synthesized
Message Type	Prerecorded messages	Prerecorded messages	Prerecorded messages	Prerecorded messages	Message formulation	Message formulation	Message formulation
Recording Time	Less than or equal to 8 minutes	Greater than 8 minutes but less than or equal to 20 minutes	Greater than 20 minutes but less than or equal to 40 minutes	Greater than 40 minutes	N/A	N/A	N/A
Access Method	Multiple access methods	Multiple access methods	Multiple access methods	Multiple access methods	Direct physical contact with SGD	Multiple access methods	Program for personal computer or PDA
Message Formulation Technique	N/A	N/A	N/A	N/A	Spelling	Spelling and other methods	Spelling and other methods
Fee Schedule Amount	**391.06**	**1195.80**	**1577.42**	**2312.96**	**3576.61**	**6768.25**	

	Mounting System	Accessory
Code	E2512 (formerly K0546)	E2599 (formerly K0547)

Provided by: Joanne P. Lasker, Ph.D., CCC-SLP, from Florida State University Department of Communication Disorders, correspondence 3/23/04.

Attachment C