



WHEELCHAIR BENEFIT COVERAGE STANDARD SUBPART 2: POWER MOBILITY DEVICES – Draft

Covered Services and Limitations

PMDs will be considered for coverage if the client's condition or diagnosis is such that, without the PMD, he or she would be unable to access their home or community environments safely or entirely. PMD requests for coverage are reviewed on a case-by-case basis and approval is based on documentation submitted by the eligible provider.

PMDs refer to two categories of mobility devices, power operated vehicles (POVs) and power wheelchairs (PWCs). Each of these categories offer varying degrees of mobility options designed to accommodate individual needs. Approval for PMDs is based on thorough assessment documentation of the equipment that is the most appropriate and least costly option available that will meet the client's medical and functional needs.

POWER MOBILITY DEVICE CATEGORIES

The PMD categories for coverage include:

- Group 1 POV
 - Standard (K0800)
 - Heavy Duty (K0801)
 - Very Heavy Duty (K0802)

- Group 2 POV
 - Standard (K0806)
 - Heavy Duty (K0807)
 - Very Heavy Duty (K0808)

- Group 1 PWCs:
 - No Power Seating Option (K0813-K0816)

- Group 2 PWCs:
 - No Power Seating Option (K0820-K0829)
 - Single Power Seating Option (K0835-K0840)
 - Multiple Power Seating Option (K0841-K0843)

- Group 3 PWCs:
 - No Power Seating Option (K0848-K0855)
 - Single Power Seating Option (K0856-K0860)
 - Multiple Power Seating Option (K0861-K0864)

- Group 4 PWCs:
 - No Power Seating Option (K0868-K0871)



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- Single Power Seating Option (K0877-K0880)
- Multiple Power Seating Option (K0884-K0886)

- Group 5 PWCs:
 - Single Power Seating Option (K0890)
 - Multiple Power Seating Option (K0891)

BASIC COVERAGE CRITERIA FOR A POWER MOBILITY DEVICE

In addition to the criteria outlined in the following pages for specific POV or PWC recommendations, assessment documentation for all PMDs must demonstrate basic necessity for a mobility device that is inclusive of the following information:

- The client has a mobility limitation (see Definitions) that significantly impairs his/her ability to participate in basic and/or instrumental activities of daily living (ADLs), in customary locations in the home or any non-institutional setting in which routine life activities take place.
- The client's mobility limitation cannot be sufficiently and safely resolved by the use of an appropriately fitted cane or walker.
- The client does not have sufficient upper extremity function to self-propel an optimally configured manual wheelchair (see Definitions) in the home or community to perform basic or instrumental ADLs during a typical day, including but not limited to:
 - Limitations of strength, endurance, range of motion, or coordination
 - Presence of pain, or deformity;
 - Absence of one or both upper extremities.
- The client has sufficient mental and physical capabilities (i.e. adequate range of motion, coordination, trunk control, appropriate judgment, cognitive skills, vision and perceptual abilities) to safely operate the PMD being requested. If the client is under 21 years of age, he or she demonstrates the potential to develop sufficient mental and physical capabilities with practice.
- The client's home or non-institutional community setting provides adequate access between rooms, maneuvering space, and surfaces for the operation of the PMD being requested.
- The client's condition is such that the requirement for a PMD is long-term, and the need is anticipated to be more than six months. PMDs are not medically necessary if the underlying condition is reversible and the medical justification does not support a long-term need. (Example: Requests for PMDs following lower extremity surgery which limit ambulation do not support medical necessity criteria for a powered mobility device.)
 - If a client requires a PMD for less than six months, the PMD can be rented.
- Use of a PMD will significantly improve the client's ability to participate in basic and/or instrumental ADLs, and the client will use it on a regular basis in the home and/or community.
- The client has not expressed an unwillingness to use the PMD that is provided in the home and/or community setting.



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- The client does not exceed, and is not at risk of exceeding the weight capacity of the recommended PMD.
- The recommended PMD should be intended for long-term use and capable of modification to meet the needs of anticipated improvement, deterioration, or change in height or weight for the lifetime of the device.

NOTE 1: For all clients with a degenerative condition or progressive neurological diagnosis, assessment must include a specialty evaluation performed by an appropriate licensed/certified medical professional (PT,OT, NP or physician) who has specific training and experience in wheelchair evaluations, and that documents the medical necessity for the recommended PMD.

NOTE 2: If the client is dependent on a caregiver for mobility in a wheelchair, and the primary caregiver is unable to adequately push the client in an optimally configured manual wheelchair, a PWC may be provided if the caregiver is available, capable, and willing to safely operate the PWC being requested and assure it is cared for. However, a POV and a Group 4 PWC are deemed as not medically necessary in these situations and will be denied.

NOTE 3: All PMD recommendations must demonstrate that the **client meets the criteria in the Basic PMD Coverage Guidelines outlined above and the following criteria outlined in the appropriate PMD category** to substantiate the client's functional and medical need. Documentation should also include justification that indicates why a lower level or less costly PMD is not appropriate.

COVERAGE CRITERIA FOR POWER OPERATED VEHICLES (K0800 – K0808)

GROUP 1 POWER OPERATED VEHICLES

Group 1 POVs have the ability to operate primarily in accommodated environments (see Definitions). A typical user must be able to operate the tiller steering system, sit with good postural stability in van captain seating, and transfer into and out of the device with independence. Group 1 POVs are intended primarily for use on smooth, flat surfaces.

Group 1 POV (K0800- K0802)

A Group 1 POV is covered if:

- The client is able to maintain postural stability in van captain seating while operating the POV;
- The client is able to operate a tiller steering system (see Definitions);
- The client is able to safely transfer into and out of the POV independently;
- The client performs basic and instrumental ADLs primarily in accommodated environments; **and**
- Based on diagnosis, prognosis, symptomatology (including rate of change of functional skills), the client is unlikely to require a change in steering mechanism, electronic adjustability or postural support for the lifetime of the device.



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GROUP 2 POWER OPERATED VEHICLES

Group 2 POVs have the ability to operate in both accommodated and non-accommodated environments (see Definitions). A typical user must be able to operate the tiller steering system, sit with good postural stability in van captain seating, and transfer into and out of the device with independence. Some Group 2 POVs can accommodate a power seat elevator. These devices are intended for extensive use in indoor and outdoor environments with a variety of terrain.

Group 2 POV (K0806-K0808)

A Group 2 POV is covered if:

- The client is able to maintain postural stability in van captain seating while operating the POV;
- The client is able to operate a tiller steering system (see Definitions);
- The client is able to safely transfer into and out of the POV independently;
- The client performs basic and instrumental ADLs in both accommodated and non-accommodated environments for extended distance travel; **and**
- Based on diagnosis, prognosis, symptomatology (including rate of change of functional skills), the client is unlikely to require a change in steering mechanism, electronic adjustability or postural support for the lifetime of the device.

COVERAGE CRITERIA FOR POWER WHEELCHAIRS (K0813-K0898)

GROUP 1 POWER WHEELCHAIRS

Group 1 PWCs have the ability to operate in accommodated environments only, traversing low level surfaces with minimal environmental barriers such as thresholds of approximately .75 inches. Group 1 PWCs are appropriate for clients with good postural stability who are unable to operate a tiller steering system and/or who cannot independently transfer in/out of a POV. Group 1 PWCs are operated with a standard proportional joystick, have no power seating options and are intended primarily for indoor use.

Group 1 Power Wheelchair: No Power Option (K0813 – K0816)

A Group 1 PWC is covered if:

- The client is unable to operate a POV safely and/or independently;
- The client performs basic and instrumental ADLs in accommodated environments;
- The client is able to operate a standard joystick;
- The client is able to maintain postural stability in van captain seating while operating the wheelchair;
- The client is able to maintain skin integrity through postural shifts, and therefore does not need a mechanical method of pressure relief; **and**



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- Based on diagnosis, prognosis, symptomatology (including rate of change of functional skills), the client is unlikely to require a change in steering mechanism, electronic adjustability or postural support for the lifetime of the device.

GROUP 2 POWER WHEELCHAIRS

Group 2 PWCs have the ability to operate in accommodated environments for long distance travel, traversing thresholds no greater than 1.5 inches in height. In general, Group 2 PWCs have limited adaptability for upgrades beyond the initial design and coding parameters. Some Group 2 PWCs can accommodate upgrades in specialty seat cushions and back supports or tilt-in-space seating systems; however, the options available are limited and not always available. Group 2 PWCs may be inappropriate for clients who have significant seating and positioning needs, or who are expected to experience a change or progression in medical condition that would require additional seating or positioning functions. Group 2 PWCs can be operated with a standard proportional joystick, and are intended for daily mobility primarily indoors.

Group 2 Power Wheelchair: No Power Seating Option (K0820-K0829)

A Group 2, No Power Seating Option PWC is covered if:

- The client is able to operate a standard joystick;
- Based on diagnosis, prognosis, symptomatology (including rate of change of functional skills), the client is unlikely to require a change in steering mechanism, electronic adjustability or postural support for the lifetime of the device; **and**
- A Group 1 PWC does not meet the client's environmental or seating needs because *either*:
 - The primary use is for basic and/or instrumental ADLs taking place in accommodated environments and infrequent use in non-accommodated environments; **or**
 - The client has an impairment in body structures or functions and requires a seating and positioning system, other than van captain seating, which cannot be accommodated by a Group 1 PWC.

Group 2 Power Wheelchair: Single Power Seating Option (K0835-K0840)

A Group 2, Single Power Seating Option PWC is covered if:

- The client meets all of the coverage guidelines for a Group 2, No Power Seating Option wheelchair; **and**
- The client requires a power tilt seating system, as outlined in the coverage guidelines for Power Tilt/Recline.

NOTE: For all Group 2 PWCs with the Single Power Seating Option, a specialty evaluation (see Definitions) is required. All Group 2 PWCs with the Single Power Seating Option must also be provided by a DME supplier that employs a RESNA-certified Assistive Technology



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Professional (ATP) who specializes in Complex Rehab Technology (see Definitions) and who has direct, in-person involvement in the wheelchair selection for the client.

GROUP 3 POWER WHEELCHAIRS

Group 3 PWCs have the ability to operate in accommodated and non-accommodated environments for extended distances, traversing thresholds and curbs of approximately 2.25 inches in height. In general, Group 3 PWCs are designed for those who have specific, unique medical and functional needs that require an individually configured device with a specialized seating system and possibly a power tilt and/or power recline system. Group 3 PWCs can be operated with a standard proportional joystick, or can be upgraded to accommodate an alternate control system, such as head control, sip and puff, switch control, etc. These power wheelchairs will accommodate modifications to the seating configuration, drive control method, and electronics to meet the needs of clients whose functional needs are expected to change within the lifetime of the chair due to their diagnosis, prognosis or other symptomatology. This group of mobility devices is intended for daily mobility indoors and outdoors, primarily on smooth paved surfaces.

Group 3 Power Wheelchair: No Power Seating Option (K0848-K0855)

A Group 3, No Power Seating Option PWC is covered if:

- The primary use is for basic and/or instrumental ADLs taking place in accommodated environments and non-accommodated environments; **or**
- The client has an impairment in body structures or functions (see Definitions) that requires an individually configured seating system that cannot be accommodated by a Group 2 PWC or other lower level PWC; **or**
- The client has a diagnosis, prognosis, or other symptomatology that will likely cause a change in the individual's functional abilities over the lifetime of the chair, requiring modifications to the seating configuration, drive control method, or chair electronics.

Group 3 Power Wheelchair: Single Power Seating Option (K0856-K0860)

A Group 3, Single Power Seating Option PWC is covered if:

- The client meets all of the coverage guidelines for a Group 3, No Power Seating Option PWC; **and**
- The client requires *either* an alternate control system or a power seating system because:
 - o The client is unable to operate a standard proportional joystick and must use an alternate control system (See Definitions) such as head control, sip and puff, switch control, etc.; **or**
 - o The client requires a power tilt **or** power recline seating, as outlined in the coverage guidelines for Power Tilt/Recline.

Group 3 Power Wheelchair: Multiple Power Seating Option (K0861-K0864)

A Group 3, Multiple Power Seating Option PWC is covered if:



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- The client meet all of the coverage guidelines for a Group 3, No Power Seating Option PWC; **and**
- The client requires *either* a mounted ventilator or a power seating system because:
 - The client has an impairment of respiratory functioning, and requires a ventilator mounted to the wheelchair; **or**
 - The client needs a power tilt **and** power recline seating system, as outlined in the coverage guidelines for Power Tilt/Recline.

NOTE: For all Group 3 PWCs (with or without the Single Power or Multiple Power Seating Option), a specialty evaluation (see Definitions) is required. All Group 3 PWCs must also be provided by a DME supplier that employs a RESNA-certified Assistive Technology Professional (ATP) who specializes in Complex Rehab Technology (see Definitions) and who has direct, in-person involvement in the wheelchair selection for the client.

GROUP 4 POWER WHEELCHAIRS

Group 4 PWCs have the ability to operate in accommodated and non-accommodated environments at high speeds and over rough, varied and uneven surfaces that are regularly encountered, for extended distance travel. Group 4 PWCs can travel over barriers and thresholds of approximately 2.75 inches in height. In general, Group 4 PWCs are designed for those who have specific, unique medical and functional needs that require an individually configured device with a specialized seating system and possibly a power tilt and/or power recline system. Group 4 PWCs can be operated with a standard proportional joystick, or can be upgraded to accommodate an alternate control system, such as head control, sip and puff, switch control, etc. These power wheelchairs will accommodate modifications to the seating configuration, drive control method, and electronics to meet the needs of clients whose functional needs are expected to change within the lifetime of the chair due to their diagnosis, prognosis or other symptomatology. This group of mobility devices is intended for extensive daily use in indoor and outdoor environments with a variety of terrain.

Group 4 Power Wheelchair: No Power Seating Option (K0868-K0871)

A Group 4, No Power Seating Option PWC is covered if:

- The primary use is for basic and/or instrumental ADLs taking place in in accommodated environments and extensive use in non-accommodated environments to include rough, varied, or uneven surfaces that are regularly encountered and that cannot be accommodated by a Group 3 PWC or other lower level PWC; **and either**
 - The client has an impairment in body structures or functions and requires an individually configured seating system; **or**
 - The client has a diagnosis, prognosis, or other symptomatology that will likely cause a change in the individual's functional abilities over the lifetime of the chair, requiring modifications to the seating configuration, drive control method, or chair electronics.

Group 4 Power Wheelchair: Single Power Seating Option (K0877-K0880)

A Group 4, Single Power Seating Option PWC is covered if:



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- The client meets all of the coverage criteria for a Group 4, No Power Seating Option PWC;
and
- The client requires *either* an alternate control system or a power seating system because:
 - The client is unable to operate a standard proportional joystick and must use an alternate control system (See Definitions) such as head control, sip and puff, switch control, etc.;
or
 - The client requires a power tilt **or** power recline seating, as outlined in the coverage guidelines for Power Tilt/Recline.

Power Wheelchair Group 4: Multiple Power Seating Option (K0884-K0886)

A Group 4, Multiple Power Seating Option PWC is covered if:

- The client meets all of the coverage criteria for a Group 4, No Power Seating Option PWC;
and
- The client requires *either* a mounted ventilator or a power seating system because:
 - The client has an impairment of respiratory functioning, and requires a ventilator mounted to the wheelchair; **or**
 - The client needs a power tilt **and** power recline seating system, as outlined in the coverage guidelines for Power Tilt/Recline.

NOTE: For all Group 4 PWCs (with or without the Single Power or Multiple Power Seating Option), a specialty evaluation (see Definitions) is required. All Group 4 PWCs must also be provided by a DME supplier that employs a RESNA-certified Assistive Technology Professional (ATP) who specializes in Complex Rehab Technology (see Definitions) and who has direct, in-person involvement in the wheelchair selection for the client.

GROUP 5 POWER WHEELCHAIRS

Group 5 PWCs have the ability to operate in accommodated and non-accommodated environments for extended distances. In general, Group 5 PWCs are designed for individuals who have specific, unique medical and functional needs and require a small wheelchair base or seating system, or specialized power functions, that are not available on other PWCs. A Group 5 PWC may also accommodate a power tilt and/or power recline system. Group 5 PWCs can be operated with a standard proportional joystick, or can be upgraded to accommodate alternate drive controls such as head control, sip and puff, switch control, etc. These power wheelchairs will accommodate modifications to the seating configuration, drive control method, and electronics to meet the needs of clients whose functional needs are expected to change within the lifetime of the chair due to their diagnosis, prognosis or other symptomatology. This group of mobility devices is intended for daily mobility indoors and outdoors, primarily on smooth paved surfaces.

Group 5 Power Wheelchair: Single Power Seating Option (K0890)

A Group 5, Single Power Option PWC is covered if:

- The client has developmental or medical needs and requires the special features of a Group 5 PWC which cannot be accommodated by a lower level PWC, such as very low seat to floor height, overall small base size, and/or growth capabilities;



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- The primary use is for basic and/or instrumental ADLs taking place in in accommodated environments and occasional use in non-accommodated environments; **and**
- The client requires *either* an alternate control system or a power seating system because:
 - The client is unable to operate a standard proportional joystick and must use an alternate control system (See Definitions) such as head control, sip and puff, switch control, etc.; **or**
 - The client requires a power tilt **or** power recline seating, as outlined in the coverage guidelines for Power Tilt/Recline.

Group 5 Power Wheelchair: Multiple Power Seating Option (K0891)

A Group 5, Multiple Power Seating Option PWC is covered if:

- The primary use is for basic and/or instrumental ADLs taking place in in accommodated environments and occasional use in non-accommodated environments; **and**
- The client has an impairment in body structures or functions and requires the power seat-to-floor function to meet developmental and/or medical needs.
- **NOTE:** Refer to the Wheelchair Options and Accessories document for more specific coverage criteria related to the power seat-to-floor function.
- **NOTE:** For all Group 5 PWCs, a specialty evaluation (see Definitions) is required. All Group 5 PWCs must also be provided by a DME supplier that employs a RESNA-certified Assistive Technology Professional (ATP) who specializes in Complex Rehab Technology (see Definitions) and who has direct, in-person involvement in the wheelchair selection for the client.

COVERAGE CRITERIA FOR POWER TILT OR POWER RECLINE SYSTEMS

Power tilt or power recline systems are designed to accommodate various medical needs, including any one or combination of the following:

- The client is at high risk for developing a pressure ulcer and is unable to independently perform a functional weight shift;
- The client utilizes intermittent catheterization for bladder management and is unable to independently transfer from the wheelchair to the bed;
- The client has an impairment of speech, cardiovascular, respiratory, or digestive function that is functionally improved with the tilt or recline feature;
- Power tilt or recline is needed to manage orthostatic hypotension related to an impairment of cardiovascular, respiratory, or neuromusculoskeletal functions;
- Power tilt or recline is needed to ensure the client can be transferred and/or positioned into and out of the wheelchair safely by a caregiver;
- Power tilt or recline is needed to ensure the client can perform transfers into and out of the wheelchair independently, or independently re-position their body within the system;



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- Power tilt or recline is needed to achieve or maintain a safe and healthy body alignment, and/or maintain postural stability, due to an impairment of neuromusculoskeletal and/or movement related functions (e.g. impairment of joint mobility, muscle strength, muscle tone, muscle endurance or motor coordination);
- Power tilt or recline is needed to ensure the client is adequately positioned to perform or participate in basic or instrumental ADLs, such as eating, meal preparation, grooming/hygiene, etc.; **or**
- The client requires frequent changes in orientation in space and/or joint position throughout the day to manage chronic, severe pain.

NOTE: A specialty evaluation (see Definitions) is required for all power mobility device prescriptions that include a power tilt, power recline, or a combination power tilt and recline seating system. If a combination of power tilt and recline is recommended, the evaluator must indicate why both seat functions are medically necessary and why power tilt or power recline alone is insufficient to meet the client's medical needs.

Non-Covered Services and General Limitations

Items for coverage are reviewed on a case-by-case basis using documentation that is submitted. Approval decisions are based on the equipment that is the least costly alternative to meet the client's medical and functional needs. Approval will not be granted for equipment that is solely intended to allow the client to engage in leisure, recreational or social activities if this equipment is more costly than a wheelchair which meets the client's medical and basic functional needs. Duplicate services will not be approved (i.e.: purchase of two PMDs coded in the same HCPC category).

All POVs or PWCs must be reviewed by the Pricing, Data Analysis, and Coding (PDAC) contractor. POVs or PWCs that have not been reviewed or are not found to meet the definition of a specific POV/PWC (K0899) by the PDAC may be considered to be not reasonable or necessary and denied.

Requests for heavy duty, very heavy duty, or extra heavy duty PWCs or POVs for clients whose weight is outside the optimal weight range of the mobility device will be denied, as they are not considered to be reasonable and necessary, i.e., heavy duty: 285–400 pounds, very heavy duty: 428–600 pounds, extra heavy duty: 570 pounds or more.

All-terrain PMDs are not considered a medical necessity by standard medical practice, and will not be covered.

PMDs that have stair-climbing capability are not considered a medical necessity by standard medical practice, and will not be covered.



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Prior Authorization and Documentation Requirements

Note to benefits collaborative participants. Prior authorization requirements were discussed in the general coverage guidelines of this benefit coverage statement. The page reference will be indicated in the final draft.

Please see page ## for prior authorization and documentation requirements. Clients must meet the criteria outlined in this coverage statement in order to qualify for a MWB.

Basic Documentation Requirements (no specialty evaluation required):

Basic documentation is required for all items that require a prior authorization and are indicated in the Durable Medical Equipment and Supplies Billing Manual. Documentation must demonstrate that the client meets the criteria for coverage outlined in this benefit coverage statement as determined by the Department's Utilization Management vendor.

Specialty Evaluation Documentation Requirements:

In addition to the Basic Documentation Requirements, Specialty Evaluation documentation is required for the following PMD items that require a Specialty Evaluation (see Definitions):

- All PMDs with the single power option or multiple power seating option
- All Group 3, 4, and 5 PWCs

A Specialty Evaluation (see Definitions) must be performed by a licensed/certified medical professional (such as a PT, OT, or physician) who has specific training and experience in Complex Rehab Technology wheelchair evaluations.



APPENDIX A: DEFINITIONS

Definition of Power Mobility Device (PMD) Types

Power mobility device (PMD) refers to the following two categories:

1. Power operated vehicles (POVs):

Power operated vehicles (POVs), commonly known as “scooters”, are 3- or 4-wheeled non-highway motorized transportation systems for persons with impaired ambulation. These devices are operated by a tiller with a professionally manufactured basic seating system.

2. Power wheelchairs (PWCs):

A PWC is a professionally manufactured device that provides motorized wheeled mobility and body support specifically for individuals with impaired mobility. PWCs are four- or six-wheeled motorized vehicles whose steering is operated by an electronic device or joystick to control direction, turning, and alternative electronic functions, such as power seating options.

There are five groups of PWCs. Features related to range, speed, durability and obstacle-climb capabilities are used to differentiate the groups, as follows:

a. Group 1 PWC:

In general, the range, speed, durability, and obstacle climb capabilities of a Group 1 PWC make them appropriate primarily for light-duty, use in accommodated environments only. These chairs cannot accept seating and positioning items and have limited configurability in seating dimensions. They cannot accommodate an expandable controller, or an alternate control system. They may have cross-brace construction and they are typically intended to be portable.

b. Group 2 PWCs:

In general, the range, speed, durability, and obstacle climb capabilities of a Group 2 PWC make them appropriate primarily for daily use in accommodated environments and occasional use in non-accommodated environments. Some Group 2 PWCs can accommodate a seat platform that allows for the addition of specialty seat cushions and back supports. CMS defines a small subsection of Group 2 PWCs as being capable of accommodating power tilt, expandable electronics, and alternate control systems; however the vast majority of Group 2 coded PWCs cannot and do not meet this capability.

c. Group 3 PWCs:

In general, the range, speed, durability, and obstacle climb capabilities of a Group 3 PWC make them appropriate for daily use in accommodated environments and intermittent use in non-accommodated environments. A Group 3 PWC has more



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available options in the configurability of the seat dimensions than a Group 1 or 2 PWC, and the dimensions of the seating system can often be modified to meet a client's changing needs. A Group 3 power wheelchair can accommodate a large array of seating and positioning items. A Group 3 PWC can be upgraded to accommodate an expandable controller and an alternate control system. These PWCs do not have cross-brace construction and they are not portable.

d. Group 4 PWCs:

In general, the range, speed, durability, and obstacle climb capabilities of a Group 4 power wheelchair make them appropriate primarily for extended use in accommodated and non-accommodated environments. A Group 4 PWC has more available options in the configurability of the seat dimensions than a Group 1 or 2 power wheelchair, and the dimensions of the seat system can be modified to meet a client's changing needs. A Group 4 power wheelchair can accommodate a large array of seating and positioning items. A Group 4 PWC can be upgraded to accommodate an expandable controller and an alternate control system. A Group 4 power wheelchair can travel at a minimum speed of 6 mph and has a minimum range of 16 miles per day, making them appropriate for extended use at high speeds in non-accommodated environments where varied, rough, and uneven terrain is regularly encountered. These PWCs do not have cross-brace construction and they are not portable.

e. Group 5 PWCs:

In general, the range, speed, durability, and obstacle climb capabilities of a Group 5 PWC make them appropriate for daily use in accommodated environments and intermittent use in non-accommodated environments.. A Group 5 Single Power Seating Option power PWC is appropriate for individuals who need the special developmental features of the chair, such as very low seat to floor height, overall small base size, and/or growth capabilities. A Group 5 Multi-Power Seating Option PWC is appropriate for individuals who require the specialized power seat functions not available on other power wheelchairs. A Group 5 PWC can accommodate a large array of seating and positioning items. A Group 5 PWC can be upgraded to accommodate an expandable controller and an alternate control system.

Definition of Power Seat Function Options for PWCs:

Various power seat function options are available for PWCs described in the previous section. Power seat function options describe the capability of the PWC to accept power tilt, recline, seat elevation, and/or standing systems. There are three power seat function options that are defined as follows:



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1. No Power Seating Option Wheelchairs

No-power seating option PWCs do not have the capability to accept power tilt, power recline, power seat elevation, or a power standing system. If a PWC can ONLY accept power elevating leg rests, it is considered to be a no-power seating option chair.

2. Single Power Seating Option Wheelchairs

Single-power seating option PWCs have the capability to accept and operate a power tilt **OR** power recline system, but not a combination of power tilt **AND** power recline. It may also be able to accommodate power elevating leg rests, a power seat elevator, and/or a power standing system.

3. Multiple Power Seating Option Wheelchairs

Multiple-power seating option PWCs have the capability to accept and operate a combination power tilt **AND** power recline seating system. It may also be able to accommodate power elevating leg rests, a power seat elevator, and/or a power standing system.

Other Definitions

Accommodated Environment

Ordinary indoor environments and mild outdoor terrain – including smooth, level surfaces (tile or low pile carpet), Americans with Disabilities Act Accessibility Guidelines (ADAAG) compliant ramps (no steeper than 1:12 rise to run ratio), thresholds of less than 1” in height, doorways that accommodate the passage of the wheeled mobility device with an additional 1” of clearance on each side of the device, paved surfaces.

Alternate Control System

A type of input device or system, other than a standard proportional joystick, used to operate a power wheelchair. An alternate control system may include proportional input devices (e.g., mini, compact, or short throw joysticks, touch pads, chin control, head control, etc.) or a non-proportional input device (e.g. digital head array, digital switch array, sip n puff, non-proportional joystick, etc.). Alternate control systems can only be used on power wheelchairs that accommodate expandable electronics.

Basic Activity of Daily Living (ADL)

The term basic activity of daily living means an individual’s capacity to safely participate in mobility and self-care activities including—

- i. maintaining and changing body position;
- ii. transferring to or from one surface to another;
- iii. walking;
- iv. moving from place to place using mobility equipment, in a safe and timely manner;
- v. washing one’s self;



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- vi. caring for the body;
- vii. toileting;
- viii. dressing;
- ix. eating;
- x. drinking;
- xi. looking after one's health; and
- xii. carrying, moving, and handling objects to perform and participate in other activities

Body Functions

Body functions are the physiological functions of body systems (including psychological functions), which include:

- Mental functions (e.g. cognition, memory, attention, sleep)
- Sensory functions and pain (e.g. seeing, hearing, vestibular, taste, smell, touch)
- Voice and speech functions
- Functions of the cardiovascular, hematological, immunological and respiratory systems
- Functions of the digestive, metabolic and endocrine systems
- Genitourinary and reproductive functions
- Neuromusculoskeletal and movement-related functions (e.g. mobility/stability of joints and bones; muscle power, tone and endurance; motor reflexes; voluntary and involuntary movements)
- Functions of the skin and related structures (e.g. protective and repair functions of skin, skin sensation; hair and nails)

Body Structures

Body structures are anatomical parts of the body such as organs, limbs and their components, which include:

- Structures of the nervous system (e.g. brain, spinal cord, sympathetic and parasympathetic nervous system)
- The eye, ear and related structures
- Structures involved in voice and speech (e.g. nose, mouth, larynx, pharynx)
- Structures of the cardiovascular, immunological and respiratory systems
- Structures related to the digestive, metabolic and endocrine systems
- Structures related to the genitourinary and reproductive systems
- Structures related to movement (e.g. head, neck, shoulder, upper extremity, pelvic region, lower extremity, trunk)
- Skin and related structures (e.g. skin, skin glands, nails, hair)

Complex Rehab Technology (CRT)

Complex Rehab Technology (CRT) products and associated services include medically necessary, individually configured devices that require evaluation, configuration, fitting, adjustment or programming. These products and services are designed to meet the specific and unique medical, physical, and functional needs of an individual with a primary diagnosis



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resulting from a congenital disorder, progressive or degenerative neuromuscular disease, or from certain types of injury or trauma. CRT typically refers to individually configured manual wheelchair systems, power wheelchair systems, adaptive seating systems, alternative positioning systems and other mobility devices.

Expandable Controller

An electronic system that is capable of accommodating one or more of the following additional functions:

- proportional input devices (e.g., mini, compact, or short throw joysticks, touch pads, chin control, head control, etc.) other than a standard proportional joystick
- non-proportional input devices (e.g., sip-and-puff, head array, non-proportional joystick, single switch array)
- operate three or more powered seating actuators through the drive control

An expandable controller may also be able to operate one or more of the following:

- separate display (i.e., for alternative drive controls)
- other electronic devices (e.g., control of an augmentative speech device or computer through the chair's drive control)
- an attendant control

Impairments

Problems in body function or structure such as a significant deviation or loss.

Instrumental Activity of Daily Living (IADL)

The term instrumental activity of daily living means an individual's capacity to safely participate in life situations in the home and community, including—

- a) communicating;
- b) moving around using transportation;
- c) acquiring necessities, goods, and services;
- d) performing household tasks;
- e) caring for household members and family members;
- f) caring for household objects;
- g) engaging in education, work, employment and economic life; and
- h) participating in community, social, and civic activities.

Mobility Limitation

A limitation in mobility that will:

- a) Prevent the client from accomplishing a basic or instrumental ADL entirely; **or**
- b) Place the client at a reasonably determined heightened risk of morbidity or mortality secondary to the attempts to perform the basic or instrumental ADL; **or**
- c) Prevent the client from completing a basic or instrumental ADL within a reasonable time frame.



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Primary Mobility Device

The PMD or MWB that a client uses the majority of the time in accommodated and/or non-accommodated environments to meet their daily medical and/or functional needs is referred to as their primary mobility device.

Non-Accommodated Environment

Indoor environments with thick carpeting or higher than 1” thresholds or transitions between floor surfaces, outdoor environments with non ADAAG compliant ramps (steeper than a 1:12 ratio) or hills in the natural environment, curbs or gravel, grassy surfaces that are not level.

Optimally Configured Manual Wheelchair

A manual wheelchair with an appropriate wheelbase, device weight, seating options, and other appropriate non-powered accessories to meet a client’s specific medical and functional needs.

Secondary Mobility Device

A secondary mobility device is a PMD, MWB, stroller or walking aid that the client uses routinely a minority of time in situations in which he or she is unable to use their primary mobility device to meet their medical and/or functional need. While the client’s secondary mobility device is not used as frequently as their primary mobility device, the client requires it on a routine basis in accommodated and/or non-accommodated environments in order to perform basic and instrumental ADLs which cannot be performed using the primary mobility device.

Specialty Evaluation

A specialty evaluation is an assessment performed by a licensed/certified medical professional (such as a PT, OT, or physician) who has no financial relationship with the DME supplier and who has specific training and experience in complex rehab technology wheelchair evaluations. The evaluation includes the physical and functional evaluation, treatment plan, goal setting, preliminary device feature determination, trials/simulations, fittings, function related training, determination of outcomes, and related follow-up. This evaluation is usually performed in conjunction with an equipment supplier who is a RESNA-certified Assistive Technology Professional (ATP), and who assists with the home environment accessibility survey, system configuration, fitting, adjustments, programming, and product related follow up.

Standard Proportional Joystick

A standard proportional joystick is a device typically found on PWCs to operate speed and directionality. The stick-like device transforms the user’s drive command (i.e., a physical action initiated by the wheelchair user) into a corresponding and comparative movement of the wheelchair, both in direction and in speed. The user can move the joystick within a 360 degree array, and the speed of the chair increases gradually as the stick is moved away from the neutral position, and it slows gradually as the joystick is returned to the neutral position. Therefore, the proportional joystick allows the user to make both a non-discrete directional command and a non-discrete speed command.



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Switches for Power Wheelchairs:

A switch is an electronic device which turns power to a particular function either "on" or "off". The external component of a switch may be either mechanical or non-mechanical.

Mechanical switches involve physical contact in order to be activated. Examples of the external components of mechanical switches include, but are not limited to, toggle, button, ribbon, etc. Examples of the external components of non-mechanical switches include, but are not limited to, proximity, infrared, etc.

Some power wheelchairs have multiple switches. In those situations, each functional switch may have its own external component or multiple functional switches may be integrated into a single external switch component or multiple functional switches may be integrated into the wheelchair control interface without having a distinct external switch component.

A stop switch allows for an emergency stop when a wheelchair with a non-proportional interface is operating in the latched mode. (Latched mode is when the wheelchair continues to move without the user having to continually activate the interface.) This switch is sometimes referred to as a kill switch.

Tiller Steering System

The Tiller Steering System is the mechanism used to maneuver a Power Operated Vehicle (POV) or mobility scooter. The tiller is the steering column located at the front of the POV that provides forward/reverse directions, turns, and speed controls. Users turn the POV to the left or right directions by pulling or pushing the handles on the steering columns. The forward, reverse and speed controls are operated using thumb paddles, finger controls, or a switch. To operate a tiller steering system, the user must have a stable and upright posture, and some upper body mobility and strength in the trunk, shoulders, and hands.

Van captain seating

Seating typically found on a Power Operated Vehicle (POV), Group 1 PWC, and most Group 2 PWCs. The seating consists of a one or two-piece automotive-style seat with rigid frame, cushioning material in both seat and back sections, covered in cloth, vinyl, leather or upholstery. The seating system is designed to serve as a complete seating, support, and cushioning system for the user. It may have armrests that can be fixed, swing-away, or detachable. It may or may not have a headrest, either integrated or separate.



APPENDIX B: BIBLIOGRAPHY

- 108th Congress Public Law 108-364, (2004). *Assistive technology act* ([DOCID: f:publ364.108]). Retrieved from U.S. Government Printing Office website: <http://www.gpo.gov/fdsys/pkg/PLAW-108publ364/html/PLAW-108publ364.htm>
- Aetna, (2001-2013). *Clinical policy bulletin* (0271). Retrieved from website: http://www.aetna.com/cpb/medical/data/200_299/0271.html
- American Medical Association, (2009). *Texas medicaid provider procedures manual policy* (24.4.27-24.4.27.10). Retrieved from website: http://www.tmhp.com/TMPPM/2010/Vol1_00a_PreTOC.pdf
- American Medical Association, (2010). *Lower limb prostheses: Local coverage determination: CMS National Coverage Policy* (L11464). Retrieved from website: https://www.noridianmedicare.com/dme/coverage/docs/lcds/current_lcds/lower_limb_prostheses.htm
- American Medical Association, (2012). *Power mobility devices: Local coverage determination: CMS National Coverage Policy* (L23598). Retrieved from website: https://www.noridianmedicare.com/dme/coverage/docs/lcds/current_lcds/power_mobility_devices.htm
- Anthem, (2012). *Clinical UM guideline wheeled mobility devices: Wheelchairs-powered, motorized, with or without power seating systems and power operated vehicles* (CG-DME-31). Retrieved from website: http://www.anthem.com/ca/medicalpolicies/guidelines/gl_pw_a048545.htm
- Arkansas Medicaid (2012). *Section II- Prosthetics*. Retrieved from website: https://www.medicaid.state.ar.us/Download/provider/.../PROSTHET_II.doc
- AT Advocate. (2008). Confronting the most common reasons why medicaid agencies say no to durable medical equipment requests. *Newsletter of the National Assistive Technology Advocacy Project*, , XII(2).
- BlueCross BlueShield of North Carolina, (2012). *Corporate medical policy: Power operated vehicle* (DME0230). Retrieved from website: http://www.bcbsnc.com/assets/services/public/pdfs/medicalpolicy/power_operated_vehicle_scooter.pdf



Colorado Medicaid Benefits Collaborative Policy Statement

- Bureau of TennCare, (2008). *Rules of Tennessee Department of Finance and Administration* (ch. 1200-13-1). Retrieved from website: <http://tennessee.gov/sos/rules/1200/1200-13/1200-13-01.pdf>
- Butler, C. (1986). Effects of powered mobility on self-initiated behaviors of very young children with locomotor disability. *Developmental Medicine & Child Neurology*, 28, 325-332.
- Cigna, (2012). *Cigna medical coverage policy* (Coverage Policy Number: 0030). Retrieved from website: https://cignaforhcp.cigna.com/public/content/pdf/coveragePolicies/medical/mm_0030_coveragepositioncriteria_wheelchairs_power_operated_vehicles.pdf
- Cohen, L., & Crane, B. Coalition to Modernize Medicare Coverage of Mobility Products, Clinician Task Force. (2004). *Wheeled mobility device coverage policy recommendations*. Retrieved from website: <http://www.cms.gov/Medicare/Coverage/CoverageGenInfo/Downloads/IWWGdocument.pdf>
- Colorado Department of Health Care Policy and Financing, (2010). *Colorado HCPF provider bulletin* (B1000280). Retrieved from website: <http://www.colorado.gov/cs/Satellite?blobcol=urldata&blobheader=application/pdf&blobkey=id&blobtable=MungoBlobs&blobwhere=1251646481456&ssbinary=true>
- Colorado Department of Health Care Policy and Financing, (2012). *Colorado Medicaid Benefits Collaborative Policy Statement Power Mobility Devices- Version 2*.
- Colorado Department of Health Care Policy and Financing, (2013). *Billing Manuals*. Retrieved from website: <http://www.colorado.gov/cs/Satellite/HCPF/HCPF/1201542320888>
- Colorado Department of Health Care Policy and Financing, (2013). *Program Rules and Regulations*. Retrieved from website: <http://www.colorado.gov/cs/Satellite/HCPF/HCPF/1214427706870>
- Cooper, R., Thorman, T., & Cooper, R., et al. (2002). Driving characteristics of electric-powered wheelchair users: how far, fast, and often do people drive? *Archives of Physical Medicine and Rehabilitation*, 83, 250-255.
- Department of Veterans Affairs, Veterans Health Administration. (2000). *VHA handbook: Wheelchairs and special mobility aids* (1173.6). Retrieved from website: <http://www.nepva.org/downloads/Wheelchairs.pdf>
- Dicianno, B., Arva, J., & Lieberman, J., et al. (2009). RESNA position on the application of tilt, recline, and elevating leg rests for wheelchairs. *Assistive Technology*, 21(1), 13-22,24.



Colorado Medicaid Benefits Collaborative Policy Statement

- Division of Medicaid and Health Finance, (2012). *Utah medicaid provider manual*. Retrieved from website: [http://www.health.utah.gov/medicaid/manuals/pdfs/Medicaid Provider Manuals/Non-Traditional Medicaid \(NTM\)/NTM-manual4-13.pdf](http://www.health.utah.gov/medicaid/manuals/pdfs/Medicaid%20Provider%20Manuals/Non-Traditional%20Medicaid%20(NTM)/NTM-manual4-13.pdf)
- Eggars, S., Myaskovsky, L., & Burkitt, K., et al. (2009). A preliminary model of wheelchair service delivery. *Archives of Physical Medicine and Rehabilitation*, 90(6), 1030-1038.
- Fass, M. V., Copper, R., & Fitzgerald, S. G., et al. (2004). Durability, value and reliability of selected electric powered wheelchairs. *Archives of Physical Medicine and Rehabilitation*, 85(5), 805-814.
- Greer, N., Brasure, M., & Wilt, T. (2012). Wheeled mobility (wheelchair) service delivery: scope of the evidence. *Annals of internal medicine review*, 156(2), 141-151.
- Guerette, P., Tefft, D., & Furumasu, J. (2005). Pediatric powered wheelchairs: Results of a national survey of providers. *Assistive Technology*, Fall;17(2):144-58.
- Humana, (2012). *Humana medical coverage policy: mobility assistive devices (wheelchairs)* (No. CLPD-0344-013) Retrieved from website: http://apps.humana.com/tad/tad_new/home.aspx
- Hunt, P., Boninger, M., & Cooper, R., et al. (2004). Demographics and socioeconomic factors associated with disparity in wheelchair customizability among people with traumatic spinal cord injury. *Archives of Physical Medicine and Rehabilitation*, 85(11), 1859-1864.
- Illinois Department of Healthcare and family Services, (2001-2005). *IL handbook for medical equipment and supplies* (ch. M-200). Retrieved from website: <http://www.hfs.illinois.gov/assets/m200.pdf>
- Jones, MA, McEwen, IR, Hansen, L. (2003). Use of power mobility for a young child with spinal muscular atrophy. *Physical Therapy*, 83(3), 253-262.
- Kaiser Family Foundation, Acute Care Services Medicaid Benefits. (2010). *Benefits by state: Colorado*. Retrieved from website: http://medicaidbenefits.kff.org/print_s.jsp?st=6&cat=0&nt=on&yr=5
- Kaiser Family Foundation. (2009-2010). *Kaiser state health facts Colorado & United States*. Retrieved from website: <http://www.statehealthfacts.org/mfs.jsp?rgn=7&rgn=1>.
- Kansas Health Policy Authority, (2010). *Kansas medical assistance program provider manual: Durable medical equipment*. Retrieved from website: [https://www.kmap-state-ks.us/Documents/Content/Provider Manuals/DME_05052010_10065.pdf](https://www.kmap-state-ks.us/Documents/Content/Provider%20Manuals/DME_05052010_10065.pdf)



Colorado Medicaid Benefits Collaborative Policy Statement

- Kaye, N., & May, J. NASHP, (2010). *State innovations in EPSDT*. Retrieved from National Academy for State Health Policy website: www.nashp.org
- Livingstone, R. (2010). A critical review of powered mobility assessment and training for children. *Disability and Rehabilitation*, 5(6), 392-400.
- Marini, I., & Harper, D. (2006). Empirical validation of medical equipment replacement values. *Journal of Life Care Planning*, 4(4), 173-182.
- McClure, L., Boninger, M., & Oyster, M., et al. (2009). Wheelchair repairs, breakdown, and adverse consequences for people with traumatic spinal cord injury. *Archives of Physical Medicine and Rehabilitation*, 90(12), 2034-2038.
- Minnesota Department of Human Services, (2010). *MHCP provider manual*. Retrieved from website: http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=dhs16_157386
- National Coalition for Assistive and Rehab Technology website: <http://www.ncart.us/>
- National Coalition for Assistive and Rehab Technology, (2011). *Updated proposal to create separate benefit category for complex rehab technology*. Retrieved from website: <http://www.ncart.us/articles/updated-proposal-to-create-separate-benefit-category-for-complex-rehab-technology>
- North Carolina Department of Health and Human Services, (n.d.). *NC durable medical equipment*. Retrieved from website: <http://www.ncdhhs.gov/dma/services/dme.htm>
- North Carolina Division of Medical Assistance Durable Medical Equipment and Supplies, (2011). *NC medicaid and health choice clinical coverage policy (5A)*. Retrieved from website: <http://www.ncdhhs.gov/dma/mp/dmepdf.pdf>
- Oklahoma ABLE Tech, Oklahoma's Assistive Technology Program, Oklahoma State University Seretean Wellness Center. (2011). *OK funding for AT: A guide to solving the funding puzzle and receiving assistive technology in Oklahoma* (sixth edition). Retrieved from website: <http://www.ok.gov/abletech/documents/FundingManual2011.pdf>
- Oklahoma Health Care Administration, (2010). *Guidelines for requesting an exemption from DME accreditation requirements*. Retrieved from website: <http://www.okhca.org/>
- Oklahoma Health Care Authority, (2012). *Comparison chart of Soonercare benefits*. Retrieved from website: <http://www.okhca.org/individuals.aspx?id=95&parts=11601>



Colorado Medicaid Benefits Collaborative Policy Statement

Oklahoma Health Care Authority, (2011). *Oklahoma health care administration policies and rules* (Title 317). Retrieved from Oklahoma Secretary of State Office of Administrative Rules website: <http://www.okhca.org/xPolicyPart.aspx?id=558&chapter=30&subchapte>

Oregon Health Authority, (2011). *OR durable medical equipment, prosthetics, orthotics and supplies (dmeops)provider guide: Supplemental information for Oregon medicaid providers*. Retrieved from website: <http://www.dhs.state.or.us/policy/healthplan/guides/dme/dmesupp1111.pdf>

Oregon Health Authority, (2012). *Oregon durable medical equipment, prosthetics, orthotics and supplies program rulebook* (410-122-0680). Retrieved from website: <http://www.dhs.state.or.us/policy/healthplan/guides/dme/122rb080111.pdf>

Oregon Health Authority, (2013). *Oregon health plan policies, rules and guidelines*. Retrieved from website: <http://www.dhs.state.or.us/policy/healthplan/main.html>

Oregon Health Authority, Division of Medical Assistance Programs, (2012). *Secretary of state Certificate and order for filing permanent administrative rules* (Report No. 410-122-0340). Retrieved from website: http://www.dhs.state.or.us/policy/healthplan/guides/dme/122_040112.pdf

Pearlman, J., Karnawat, J., Cooper, R., & Boninger, M. (2005). Evaluation of the safety and durability of low-cost nonprogrammable electric powered wheelchairs. *Archives of Physical Medicine and Rehabilitation*, 86(12), 1261-1270.

Position Paper: Congress Must Pass H.R. 4378, (n.d.). *Separate benefit category needed for complex rehab technology to ensure access*. Retrieved from website: www.access2crt.org.

Rehabilitation Engineering and Assistive Technology Society of North America, (2009). *RESNA WC-1, Section 26: Vocabulary*.

Rehabilitation Engineering & Assistive Technology Society of North America (2011). *RESNA wheelchair service provision guide*. Retrieved from website: <http://www.resna.org/dotAsset/22485.pdf>

Rehabilitation Engineering & Assistive Technology Society of North America, (2012). *RESNA position on the application of wheelchairs, seating systems, and secondary supports for positioning vs. restraint*. Retrieved from website: <http://resna.org/conference/program/workshop-handouts/WS23Lange.pdf>



Colorado Medicaid Benefits Collaborative Policy Statement

- Rehabilitation Engineering and Assistive Technology Society of North America, (2013). *Standards committee on wheelchairs (including scooters)*. Retrieved from website: <http://www.resna.org/atStandards/-wheelchairs.dot>
- Rosen, L., Arva, J., & Furumasu, J., et al. (2009). RESNA position on the application of power wheelchairs for pediatric users. *Assistive Technology*, 21(4), 218-225,228.
- Sheldon, J., O'Connell, M., & Elliot, S. National Assistive Technology Advocacy Project, (2008). *Funding assistive technology through state Medicaid programs*. Retrieved from Neighborhood Legal Services, Inc. website: www.nls.org
- Social security Act, (2013) *Compilation of the Social Security Law*. Retrieved from website: http://www.ssa.gov/OP_Home/ssact/ssact.htm
- Tefft, D, Guerette, P, and Furumasu, J. (2011). The impact of early powered mobility on parental stress, negative emotions and family social interactions. *Physical and Occupational Therapy in Pediatrics*, 31(1), 4-15.
- Texas health and human services commission, (2008). *Rider 64 specialized seating and wheeled mobility providers* . Retrieved from website: http://www.hhsc.state.tx.us/about_hhsc/reports/search/search_dateorder.asp
- Texas Medicaid and Healthcare Partnership, (2011). *TX durable medical equipment and supplies*. Retrieved from website: <http://www.tmhp.com/HTMLmanuals/TMPPM/2011/2011TMPPM-27-011.html>
- The family center on technology and disability: links to useful sights*. (n.d.). Retrieved from <http://www.fctd.info/resources/sourcesLev2.php?category=3>
- United Healthcare, (2012). *Coverage determination guideline: Durable medical equipment, orthotics, ostomy supplies, medical supplies, and repairs/replacements* (CDG-A-013) Retrieved from website: https://www.unitedhealthcareonline.com/ccmcontent/ProviderII/UHC/en-US/Assets/ProviderStaticFiles/ProviderStaticFilesPdf/Tools%20and%20Resources/Policies%20and%20Protocols/Medical%20Policies/Medical%20Policies/DME_CD.pdf
- Utah Department of Health, Utah Medicaid Program. (2010). *Wheelchair evaluation form*. Retrieved from website: <http://www.health.utah.gov/medicaid/pdfs/Forms/WheelchairForm3-13.pdf>
- Waugh, K., & Crane, B (2013). *A clinical application guide to standardized wheelchair seating measures of the body and seating support surfaces*. Denver, Colorado, University of



Colorado Medicaid Benefits Collaborative Policy Statement

Colorado Denver (363 pgs), Funded by the Paralyzed Veterans of America Education Foundation Grant # 668. Retrieved from website: <http://at-partners.org/WheelchairSeating>

Washington State Health Care Authority, (2012). *WAC durable medical equipment, prosthetics, orthotics, medical supplies and related services* (ch. 182-543). Retrieved from website: <http://apps.leg.wa.gov/Wac/default.aspx?cite=182-543&full=true>

Washington State Department of Social and Health Services, (2007). *HRSA nondurable medical supplies and equipment (mse) billing instructions* (ch. 388-543). Retrieved from website: http://www.hca.wa.gov/medicaid/billing/documents/guides/nondurable_mse_biasof212010.pdf

Wisconsin Department of Health and Family Services, (1996). *Wisconsin medicaid update*. Retrieved from website: <https://www.forwardhealth.wi.gov/kw/pdf/96-24.pdf>

World Health Organization, (2001). *International Classification of Functioning, Disability and Health*. Retrieved from website: <http://www.who.int/classifications/icf/en/>

Worobey, L., Oyster, M., Nemunaitis, G., Cooper, R., & Boninger, M. (2012). Increases in wheelchair breakdowns, repairs, and adverse consequences for people with traumatic spinal cord injury. *American Journal of Physical Medicine & Rehabilitation/Association of Academic Physiatrists*, 91(6), 463-469.