



State of California—Health and Human Services Agency  
Department of Health Care Services



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GOVERNOR

DATE: May 29, 2014 N.L. 09-0514  
Index: Medical Therapy Program

TO: ALL CALIFORNIA CHILDREN'S SERVICES (CCS) PROGRAM COUNTY ADMINISTRATORS, MEDICAL DIRECTORS, SUPERVISING THERAPISTS, MEDICAL THERAPY UNITS, SYSTEMS OF CARE ADMINISTRATORS, MEDICAL DIRECTORS AND THERAPY CONSULTANTS

SUBJECT: POWERED MOBILITY DEVICES (PMD)

## I. PURPOSE

The purpose of this Numbered Letter (N.L.) is to provide additional criteria to N.L. 09-0703 and standardize how county CCS/Medical Therapy Program (MTP) therapists evaluate for and authorize PMD. This N.L. will introduce the mandatory usage of the CCS Program's Power Mobility Skills Test (Attachment 1) and Instructions (Attachment 2) to assist in this process. The CCS Program's Guiding Principles for PMD (Attachment 3) are intended to provide perspective, inform therapists, and assist in removing both real and perceived barriers to powered mobility for patients in the program.

## II. BACKGROUND

The CCS/MTPs provide PMD as a benefit to eligible patients when it has been determined by the medical therapy conference (MTC) or private CCS Program-paneled physician to be medically necessary. Numbered Letter 09-0703 provides guidelines for the recommendation and authorization of rental or purchase of Durable Medical Equipment—Rehabilitation (DME-R), and includes PMD. Powered mobility is a significant step towards independence for many CCS Program patients. Research indicates that early exposure to powered mobility may empower a patient with a movement-limiting disability to explore, develop new skills, reduce “learned passivity/helplessness” and does not inhibit learning self-powered mobility skills. The current power mobility eligibility criteria are based primarily on therapist judgment to determine whether the patient can

independently maneuver the chair in a consistent, safe, and responsible manner. This ability must be demonstrated and documented. The current guidelines are general and do not include the use of standardized skills testing to determine if specific power mobility goals have been met or provide consistency between county CCS/MTPs.

A workgroup of state and local county CCS Program therapists have developed a standardized skills test for county programs to supplement what is currently in the DME-R Guidelines. This tool includes a skills test, scales, and instructions on how to utilize the tool. The test was implemented by selected county CCS/MTP therapists on a trial basis to determine the objectivity and ease of use of the test. Revisions were made after each testing phase and comments collected from the implementing therapists.

The skills test is a consolidation of test items currently being used by various County CCS programs and items derived from numerous research articles and tests used by other agencies. The skills test was designed to determine eligibility/readiness for authorization of PMD, regardless of age.

### **III. POLICY**

The CCS Program provides power mobility to patients who are eligible and meet the criteria in the CCS Program DME-R Guidelines. Patients who are candidates for powered mobility are to be tested, in different chairs when necessary, until the best option is established. A therapy plan will be devised that incorporates goals and objectives for training in the PMD. A trial period may last the full six months (or less) of the therapy plan. The skills test can be administered at any time during the duration of the therapy plan. If a patient cannot pass the skills test by the end of the therapy plan, the therapist should determine if further training would allow successful completion of the test based on partial completion of goals. Passing the skills test determines that the patient is eligible for authorization for a powered wheelchair, not that they are completely safe to operate the chair independently in all situations, or without adult supervision. A prescription from a CCS Program-paneled physician of the appropriate specialty is required in addition to medical justification and goals to be attained using the device.

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Power accessories such as tilt, recline, elevating leg rests, and elevating seat, must each have their own specific medical justification. If an attendant control is necessary for any CCS Program patient to ensure safe operation of a power wheelchair, under any circumstances, the patient is not eligible for authorization of a power mobility device.

#### **IV. POLICY IMPLEMENTATION**

All county CCS/MTPs will begin utilizing the Powered Mobility Skills Test as of the date of this letter. The skills test will be administered and passed prior to authorization. A copy of the final test will be kept in the child's medical chart along with all other supporting documentation required for justification and authorization of a PMD per N.L. 09-0703.

If you have any questions regarding this new policy, please contact Jeff Powers, Physical Therapy Consultant at (916) 327-3027 or via e-mail at [jeff.powers@dhcs.ca.gov](mailto:jeff.powers@dhcs.ca.gov) . Thank you for your assistance in this matter.

#### **ORIGINAL SIGNED BY LOUIS R. RICO**

Louis R. Rico, Chief  
Systems of Care Division

Attachments

## California Children's Services Power Mobility Skills Test

**Refer to Power Mobility Skills Test Instruction Sheet before administering and scoring.**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

DOB: \_\_\_\_\_ CCS #: \_\_\_\_\_

SKILL SET 1 - In order to pass this evaluation and proceed with authorization of a power mobility device, the client must achieve a minimum score of 3 (Standby) on all items in SKILL SET 1 except the "Unexpected Obstacle" skill which requires a score of 5 (Independent – no verbal cues allowed).

### SCALE

5	<b>Independent</b> - Independently performs task in 1 attempt with no verbal cues
4	<b>Supervision</b> - Independently performs task in 2 attempts, self corrects with infrequent verbal cueing
3	<b>Standby</b> - Performs task in $\leq 3$ attempts, with frequent verbal cueing, no hands on assistance needed
2	<b>Contact Guard</b> - Needs hands-on assistance less than 10% of the time
1	<b>Requires Physical Assistance</b> - Needs hands-on assistance more than 10% of the time

SKILL SET 1: Required Competencies		score	comments
Turns 180 degrees within a 5 ft square			
Parks within 12 inches of table without bumping			
Navigates through 3 foot wide doorway 3 times without bumping	Doorway 1		
	Doorway 2		
	Doorway 3		
Moves forward 50 feet along 4 foot wide path			
Follows tester through serpentine obstacle course			
Stops or maneuvers safely around unexpected obstacle *(Client must score 5 on this item to pass)*			

### ADULT CAREGIVER TEST (to be completed for clients who need assistance with these skills):

Attendant/caregiver must be able to demonstrate the following:

Position child optimally and safely (including needed harnesses and belts)	Yes / No
Turn device on/off	Yes / No
Adjust speed control	Yes / No
Disengage motor for manual pushing when necessary	Yes / No

## California Children's Services Power Mobility Skills Test

SKILL SET 2 – These skills are NOT required to pass, but should be reviewed and tested in order to get a clear picture of a client's potential for community independence. Caregivers may assist a client to complete these skills in any way necessary.

### SCALE

5	<b>Independent</b> - Independently performs task in 1 attempt with no verbal cues
4	<b>Supervision</b> - Independently performs task in 2-3 attempts, self corrects with infrequent verbal cueing
3	<b>Standby</b> - Performs task with frequent verbal cueing but no hands on assistance needed
2	<b>Contact Guard</b> - Needs hands-on assistance less than 10% of the time
1	<b>Requires Physical Assistance</b> - Needs hands-on assistance more than 10% of the time

SKILL SET 2: Community Readiness Competencies	score	Comments
<b>BASIC SKILLS</b>		
Driver turns device on/off		
Use appropriate speed controls for environment		
Indicate desire for assistance when needed		
<b>COMMUNITY SKILLS</b>		
Positions device in preparation for transfer		
Back-in parking within 5-ft square		
Finds & negotiates sidewalk curb cutout		
Up or down a ramp		
Crosses intersection with signal lights (or simulation)		
Crosses street without signal lights (or simulation)		
Enters/exits elevator within 5 seconds (or simulation)		

**Test Summary** attach narrative if needed

Did the client pass required competencies (skill set 1)?: Yes / No

If Yes, does the client need adult supervision/assistance to operate the device safely?: Yes / No

Indicate skills that require adult supervision:

Indicate any areas of concern:

**To ensure the safety of the client and community, adult supervision is highly recommended if the client scores a 4 or less on any skill. Adult supervision is also recommended for any client under the age of 18.**

\_\_\_\_\_  
Therapist/Tester signature

date\_\_\_\_\_

\_\_\_\_\_  
Parent / Guardian / Client signature (if over 18)

date\_\_\_\_\_

# CCS Power Mobility Skills Test Instruction Sheet

- If necessary, a skill may be modified at therapist's discretion to accommodate a client's particular disability. However, the modified skill should reflect closely the intent of the test item. All modified test skills should be reviewed and discussed with the therapy supervisor and the prescribing physician prior to requesting a prescription.

SKILL SET 1: Required Competencies	
<p><b>Turn 180 degrees within a 5 ft square</b> Purpose: To test ability to turn in tight spaces</p> <p><i>Skill should be set up with driver facing tester. Tester then walks behind driver and driver is asked to turn around and face tester. Square should be clearly marked with floor tape or objects at corners.</i></p>	
<p><b>Park within 12 inches of table without bumping</b> Purpose: To test ability to park device carefully and accurately</p> <p><i>Park with joystick/armrest/scooter wheel or basket within 12 inches of table without making contact with table.</i></p>	
<p><b>Navigate through 3 foot wide doorway 3 times without making contact with door frame</b> Purpose: To test ability to navigate through household, school, and community doorways</p> <p><i>Driver demonstrates ability to drive through doorway without making contact. This skill must be completed 3 times to demonstrate consistency (one doorway 3 times or 3 separate doorways).</i></p>	
<p><b>Move forward 50 feet along 4 foot wide path</b> Purpose: To test ability to drive in a relatively straight line</p> <p>This is the approximate width of a typical sidewalk.</p>	
<p><b>Follow tester or parent through serpentine obstacle course</b> Purpose: To test maneuvering skills in crowded environment (not cognition)</p> <p><i>Place 3 cones in line 5 feet apart from each other. Tester or parent should walk through serpentine course and back with driver following, so test begins and ends at same point. Test starts over if PM device touches a cone. Driver may take their time but must complete course fully one time without touching. (With children under age 3, may need to stand within 8 feet of child.).</i></p>	
<p><b>Stops or maneuvers safely around unexpected obstacle</b> Purpose: To test ability to stop if unexpected obstacle appears in lower visual field (ie toddler)</p> <p><i>When tester drops bankers box (approx. 10"x20"x12") or comparable object unexpectedly approximately 5 feet in front of driver while moving, driver must stop or move safely around object, (Driver must score 5 on this item to pass).</i></p>	

**SKILL SET 2: Community Readiness Competencies**

**Positions device in preparation for transfer** Purpose: To test ability to position PM device for a safe transfer. Driver can choose desired angle for usual transfer even if another set-up is recommended by therapist.

*Chair should ideally be positioned between parallel and 45 degree angle to transfer surface*

**Back-in parking within 5 ft square** Purpose: to test ability to back PM device up safely. This is not a skill that many power mobility users are required to do frequently (they usually turn around in place if possible), but it is something that is good to practice if the client has the ability.

*An obvious visual barrier (wall) should make up the back side of the square and sides should be clearly marked with floor tape or objects at corners. Show driver parking space and ask them to back in.*

**Crosses intersection with signal lights (or simulation)** Purpose: To test ability to see across the street to walk signal and cognitive capacity to understand when it is safe to cross. This includes following traffic signal, gauging speed and ability to negotiate curb cut-outs.

*Simulation ideally should involve one person across the street from client holding red or green paper/folder overhead to signal a red or green light. The driver may simulate pressing walk button by touching a second tester's hand. When switch is made from red to green folder, driver should proceed at a steady pace across the street.*

**Crosses street without signal lights (or simulation)** Purpose: To test ability to see across the walk signal and cognitive capacity to understand when it is safe to cross.

*Driver should look both ways before crossing and move at a steady pace directly across street.*

**Enters/exits elevator within 5 seconds (or simulation)** Purpose: To test ability to gauge speed and maneuverability to safely use an elevator. May also use this test item to highlight the fact that drivers should remember to ask for help in the community if possible.

*Simulation ideally should involve driver pressing simulated elevator button, proceeding through simulated elevator door opening, and pressing button on the inside to select which floor. Asking for help to press a button is always acceptable if they don't have the motor control.*

**Summary:** Please indicate skills that require adult supervision and indicate any areas of concern. Attach narrative if needed to clarify reasoning, describe patient's performance etc.

## **The California Children's Services (CCS) Program Guiding Principles for Power Mobility Device (PMD)**

The following history and principles are intended to explain the Power Mobility (PM) Workgroup's rationale for the testing procedure that the CCS Program will soon be implementing. Our goal is to share the information we gathered, as well as address potential concerns regarding the test and PM training for young children.

### **History**

In 2012, the CCS Program PM Workgroup was formed with the purpose of standardizing the tests and requirements for the purchase of a PMD for the CCS-eligible patients.

The PM Workgroup was comprised of pediatric occupational and physical therapists throughout California who have experience with training and testing patients for PM skills. Therapists were recruited via the State conference call. All the CCS Program therapy managers and supervisors were encouraged to inform staff of this project and invite any therapists interested in participating.

### **Skills Test Development**

This skills test is intended to be applicable to the CCS Program patients of all ages and all cognitive levels. Regardless of age or other factors, patients who can safely operate the PMD without the frequent need for hand-over-hand intervention from a caregiver would be considered appropriate.

The PM skills test was developed after reviewing assessments from Medical Therapy Units (MTUs) throughout California, as well as assessments developed outside of the CCS Program. The workgroup reviewed assessments, gathered published papers regarding early mobility and PM, and discussed/debated all relevant topics surrounding our task. The group met via telephone conferences over a period of several years and has now developed the CCS Program PM skills test for use in all MTUs.

The PM Workgroup offered all counties the opportunity to give feedback on the test. A draft PM test was sent for review in February 2013 to staff therapists who expressed interest in participating. The PM Workgroup solicited feedback regarding all test content, including skills tested, testing scale, and general instructions. Comments were compiled, discussed, and the PM skills test was further edited. After completing a final draft, alternate therapists were sent the PM skills test for final review. These therapists had not been involved in offering the initial feedback and were specifically tasked with evaluating whether the test instructions were clear and objective. The final draft was completed in January 2014.



The PM Workgroup initially intended to develop a PM readiness screening test to assist therapists in deciding whether or not a child may be a candidate for PM training. After the review of current literature and much discussion, the group decided not to promote development of a readiness or screening test. Some screening tests might require a level of driving skill that a child who has never experienced any form of independent mobility could not be expected to pass. Other tests rely solely on cognitive testing to assess a child's readiness. Research has shown that there is no reliable method to predict success unless the child is placed in a PMD and given a chance to practice (Rosen et al 2009; Furumasu, Guerette, & Tefft, 2004).

## **Barriers to providing PM**

There are many barriers to considering PMDs for our patients, especially young patients. Some barriers are technical, such as availability to PMDs for training and some are belief-based (either the belief of the therapists or the patient and family). Some barriers are related to the perceived and real dangers inherent in utilizing power mobility. Young patients require 100 percent supervision when operating a PMD, just like their neuro-typical peers require 100 percent supervision in various situations. Some patients, despite extensive training, may never learn to operate a PMD safely enough to pass the skills test. In addition, PMDs do require extra effort by the family, as they are heavy and can be difficult to transport.

## **Common Questions and Limiting Beliefs**

### **1) Use of a PMD will limit the child's ability to walk or make the child "lazy."**

Many parents and even some therapists believe that giving a child a PMD to provide independent mobility will limit the child's desire to walk. In fact, there is no evidence that using PMD at a young age impedes development of ambulation or other motor skills. The literature seems to suggest that patients who will never walk or those who will lose the ability to walk, patients who have inefficient independent mobility, as well as those patients who need mobility assistance in early childhood may all benefit from PMDs (Livingstone and Paleg 2013, Butler 1991). Self produced mobility must be efficient and functional so the spontaneous initiative to explore, interact, and achieve is not hampered by the effort or time required to move (Butler 1991). PM can be essential in allowing this spontaneity.

### **2) Recommending a PMD means the child's therapist is "giving up" on the child.**

Promoting self-directed mobility is one of the main tenets of pediatric physical and occupational therapy. Therapists frequently promote creeping, scooting, and walking as a functional independent skill. If independent mobility is not feasible due to physical limitations, therapists offer adaptive equipment. Mobility success is best defined as the child's ability to keep up with his peers, regardless of how that is accomplished (Wiant and Darrah 2002). Therapists should assist parents in understanding the benefits of efficient and independent mobility while acknowledging the parents' reluctance.

### **3) We should wait until the child is 3-5 years old before exploring powered mobility.**

Important cognitive, social, and psychological changes occur with the onset of independent mobility in typically developing children. Children generally begin independent mobility (creeping) at 8-10 months of age. After the onset of independent mobility, changes in cognition and social skills occur. It has been debated whether these changes occur as a result of maturation or are related to our experience moving through the environment. It is clear from numerous studies comparing typically developing 8-9 month old pre-locomotor vs. locomotor infants that these changes are **dependent** on locomotor experience (Anderson, Campos, Witherington Dahl, Rivera, & Barbu-Roth, 2013). Children develop object permanence, wariness of heights, form constancy and postural compensation to peripheral optic flow only **AFTER** the onset of **independent** mobility (Kermoian and Campos 1988; Campos, Anderson, Barbu Roth, Hubbard, Hertenstein, Witherington 2000). Locomotor experience also facilitates the development of attentional skills. When an infant creeps towards an environmental goal, the infant learns to tolerate longer delays in goal attainment and must maintain attention on the goal. In addition, social interactions between the child and caregivers change with the onset of independent mobility. As infants explore and “get into everything,” parents have more opportunity to communicate facially and vocally, and the infant receives social signals that have a distal reference. The development of joint attention - the ability to follow the point and gaze of an adult - is more consistent after infants have five weeks of crawling experience. This holds true not only for typically developing infants, but also for infants whose crawling was delayed due to physical, cultural, or environmental reasons (Campos et al 2000).

With independent locomotion, the infant can also directly control their proximity to caregivers. Not surprisingly, locomotor infants show increases in anger and greater sensitivity to maternal departures and whereabouts. Parents have greater expectations for locomotor infants as well, (Campos et al 2000).

In typically developing children, lack of mobility leads to feelings of incompetence and decreased motivation (Wiant and Darrah 2002). Restricted locomotion during early childhood results in a lack of curiosity and initiative, which persists later into life. A sense of passivity and “learned helplessness” becomes well established in a child by four years of age (Butler 1991). Early powered mobility may help prevent this if it facilitates independent mobility.

### **4) Parents and caregivers can push the child around in a stroller or wheelchair to teach them navigational skills.**

Infants and children who are carried or pushed in strollers or wheelchairs do not learn navigational skills because they are visually idle and passive observers during the movement experience. To learn navigation, the infant or child must decide where to move and how to get there. Navigational skills are **dependent on self-directed mobility**.

## 5) If a child can't learn to drive in one month, they will never learn to drive.

Therapists should be aware that patients sometimes need extensive exposure to the PMD before learning to activate the joystick. The amount of practice time needed to become proficient varies amongst disabilities. Typically developing 7-8 month old children with 10 minutes of daily exposure to a joystick controlled mobility device took at least 4 sessions before learning to activate the joystick to move towards parents (Anderson, D 2013). Lynch, Ryu, Agrawal, & Galloway (2009) documented PM learning with an infant with L4-L5 spina bifida. The infant was exposed to 4-5 days per week of driving starting at 7 months of age. By 12 months of age, the child had increased the number of joystick activations and the distance traveled, but was not yet proficient. In a randomized controlled trial teaching wheelchair mobility in children with disabilities aged 14-30 months, Jones (2013) reported wide variation in the length of time a child needs to become proficient. One child in the trial took more than a year of training but eventually succeeded in becoming proficient. As a result of this variance, the author cautions against using short term PM trials as the sole basis for making decisions about a child's potential to use a PMD.

### How long should we train before giving up?

The PM Workgroup believes that the training period should be left to the treating therapist's clinical judgment (much the same as any other treatment plan). Every patient is different and some may progress more slowly than others. However, **measurable** progress must be clearly documented to continue therapy related to PM over successive reporting periods. Frequent use of the new skills test during therapy might be one way to document this progress.

### How young is too young to be safe?

This is dependent on many factors (cognition, behavior, physical limitations, environment, caregivers, etc.) and can only be judged on an individual basis. Jones, McEwen, and Hansen (2003) described an 18-month old patient with Spinal Muscular Atrophy who became an independent PM driver in six weeks. Of course, typically developing infants and children require adult supervision for safety. It is our opinion that because of the dangers inherent with PM, young children using PMDs require adult supervision 100 percent of the time. It is indeed more of a burden for parents and caregivers to supervise a child who is driving a PMD than a child who is immobile, but the benefits of self-mobility are indisputable. Therapists are encouraged to discuss these factors with families in order to help them come to a decision regarding their child's readiness.

### How do we teach driving?

Learning to operate a PMD is not the same as learning to drive a car. It is more like learning to creep or walk. Infants and children learn mobility by trial, error, and extensive practice. Learning any new skill requires patience and perseverance. Typically developing children do not initially tolerate practicing mobility skills for more than a few moments at a time. But they practice many times a day. As they gain a measure of success, their motivation to "try and try again" increases dramatically. Similarly, a child learning PM may benefit from multiple practice

periods of only a few minutes, rather than one extended and potentially frustrating practice session. As they begin to make progress, their tolerance to practice will increase. Jones (2013) suggests that in the beginning, having practice sessions three times weekly or even daily is preferable to only one practice session per week.

As therapists, we know that children learn mobility through physical exploration rather than technical instruction. The same is true for powered mobility and we should make an effort to model this for parents. Instead of overusing technical instructions such as “push your hand to the right to move the joystick,” we should offer simple encouragement such as “come to mommy” after the initial demonstration.

## **SUMMARY**

The CCS Program has an obligation to promote independence in children with physical disabilities. This includes promotion of mobility, either independent or with the aid of adaptive equipment such as walkers, manual wheelchairs, or PMD's. The CCS Program also has an obligation to use resources wisely. We must ensure that the equipment we recommend is considered medically-necessary, and this requires that the patient have the ability to use the equipment functionally. The PM Workgroup has developed a skills test to help therapists establish the minimum level of operating proficiency necessary for the CCS Program to authorize purchase of a PMD. This does not imply that a child who passes the skills test will be safe in all situations. The test only attempts to establish that they have a minimum ability to operate a PMD safely with supervision. Parents and caregivers must also receive information and training in order to assist their child in learning safe independent mobility. Some children take longer than others to learn to drive. Many may never become proficient despite extensive training. Unfortunately, there is no reliable predictive test to determine if a child has the ability to be a proficient PMD driver with training. We can only give them an opportunity to try. We encourage therapists to speak with parents about the benefits of early mobility and consider using a PMD as simply a treatment modality. This is one means of early introduction to powered mobility without the heavy implications that a powerchair can have for parents.

The PM Workgroup recognizes that not all MTUs have ready access to PMDs for training, and the CCS Program often relies on vendors to provide training chairs. We encourage therapists and families who do not have PMD access to be creative and energetic. People generally want to help and a few phone calls “outside the box” will often net positive results. We also encourage therapists to petition manufacturers of PMDs to develop and market a low cost, lightweight device for early mobility training. There is good research happening around early powered mobility and access should not be a barrier.

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