



**Submitted Electronically via [Medicare Coverage Database \(Copy and Pasted to a Form\)](#)**

**Re: Comments on CMS National Coverage Analysis for Seat Elevation Systems as an Accessory to Power Wheelchairs (Group 3) Introduction**

### Introduction

The American Association for Homecare (AAHomecare) is the national association representing durable medical equipment, prosthetics, orthotics and supplies (DMEPOS) suppliers, manufacturers, and other stakeholders in the homecare community. Our members include manufacturers and suppliers of Group 3 power wheelchairs, often referred to as “complex rehab technology” or “CRT.” Our members are proud to be part of the continuum of care that assures beneficiaries and other patients receive cost effective, safe, and reliable home care products and services. Our CRT supplier members provide customized CRT manual and power wheelchairs and related services to consumers with complex medical needs. AAHomecare is pleased to submit comments on the Centers for Medicare and Medicaid Services’ (CMS’) [national coverage analysis for Seat Elevation Systems as an accessory to Power Wheelchairs \(Group 3\)](#).

### Summary of Comments

AAHomecare strongly supports the ITEM Coalition’s Formal “Request for Reconsideration of the Medicare National Coverage Determination for Mobility Assistive Equipment (§280.3) to include Seat Elevation Systems and Standing Systems for Group 3 Complex Rehabilitative Power Wheelchairs,” and urges CMS to adopt the ITEM Coalition’s recommendations.

### CMS National Coverage Analysis (NCA) Should Also Address Standing Systems

AAHomecare appreciates CMS’ publication of this NCA, in response to the ITEM Coalition’s Formal “Request for Reconsideration of the Medicare National Coverage Determination for Mobility Assistive Equipment (§280.3) to include Seat Elevation Systems and Standing Systems for Group 3 Complex Rehabilitative Power Wheelchairs.” We are dismayed, however, that CMS has chosen to only move forward at this time with consideration of power seat elevation coverage, and that CMS has delayed consideration of coverage for power standing systems. As the clinical and consumer community has clearly articulated in its Request for Reconsideration, there are clearly established, clinically-based medical benefits for individual to utilize both power seat elevation and power standing systems for his/her Group 3 complex rehab power wheelchair.<sup>1</sup> We urge CMS to act swiftly in evaluating the benefit category and coverage of power standing systems.

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## Medicare Coverage for Power Seat Elevation Systems Should Be Comprehensive and Not Limited to Non-Level Transfers

Seat elevation is critical to mobility-related activities of daily living (MRADLs) in the home. Seat elevation improves transfers and reaching, reduces falls, and reduces or eliminates neck and spine injuries from power wheelchair use. Seat elevating systems provide medical and functional benefits while reducing health care costs by decreasing falls, skin breakdowns, muscle contractures and other avoidable medical complications of long term or permanent wheelchair use.<sup>ii</sup> Power seat elevation systems have been available for 25 years and are covered by many other payers, besides the Medicare program. It is high time for the Medicare Program, as the largest health care insurer in the country, to provide coverage for these important systems.

As the ITEM Coalition's Request for Reconsideration details, power seat elevation systems meet all the Medicare coverage criteria for durable medical equipment. They are primarily and customarily used to serve a medical purpose due to the support they provide beneficiaries in their homes with performance of or participation in MRADLs and reducing injuries and pain related to wheelchair use, as discussed in detail below.<sup>iii</sup> In addition, power seat elevation systems are generally not useful in the absence of an illness or injury, and are appropriate for use in the home.<sup>iv</sup>

Importantly, the NCD Reconsideration Request is limited to Medicare beneficiaries with a permanent disability and a full-time need for a Group 3 power wheelchair. This group of users have more extensive needs related to performance or participation in routine MRADLs.

In its NCA, CMS states that "[t]he purpose of this National Coverage Analysis is to determine if the use of power seat elevation systems in association with Group 3 power wheelchairs for the purpose of performing non-level transfers, is a medical function that would, in conjunction with other factors and considerations, allow a benefit category and coverage determination for these systems."<sup>v</sup> AAHomecare is deeply concerned with CMS' limited interest on the evidence of medical necessity of seat elevation and only soliciting comments regarding the performance of transfers. There are three other medical purposes for power seat elevation for which the ITEM Coalition's Reconsideration Request clearly articulates clinically-based medical needs.

Seat elevation systems allows for wheelchair bound patients to safely perform activities of daily living without additional assistance, allowing patients to live a more independent life. Being able to safely perform or participate in activities of daily living would minimize potential serious injuries, which would, in turn, reduce the frequency of emergency department visits or hospitalizations.

There are four separate and equally important clinically founded medical needs for seat elevation systems: (1) Transfers, including lateral and stand-pivot transfers; (2) Performing MRADLs in the Home (3) Reaching, and (4) Line of Sight's impact on the body.<sup>vi</sup>

### (1) Transfers

Participation in MRADLs in the home requires transferring from one surface to another, which includes transferring to the toilet, bathtub, and bed. Independently and safely transferring from one surface to another is an important function for beneficiaries in power wheelchairs. As ITEM Coalition noted in their request letter, "[t]ransferring is a means to accomplish MRADLs and therefore it is considered a medical necessity."<sup>vii</sup> Studies have shown the repetitive move from one surface to another overtime strains the body.<sup>viii</sup> In one study, longtime wheelchair users have

reported that transfers as one of the most arduous activities.<sup>ix</sup> A study of patients with paraplegia found that majority of patients experienced pain during transfers during the first five years of their injury.<sup>x</sup> The reported experienced pain was 100% by 20 years.<sup>xi</sup> Seat elevation allows for preferred transfers, reducing the risk of falls, injuries, and pain.

## (2) Performing MRADLs in the Home

Without the ability to move on a vertical plane, wheelchair users are limited in function within their physical environment. Wheelchair users with power seat elevation function have reported that they use their power seat elevation regularly.<sup>xii</sup> Seat elevation allows wheelchair users to prepare meals, adjust to sitting at various table heights, and reaching items.<sup>xiii</sup> For the safest, optimal set-up of the beneficiary's wheelchair to their physical environment, close partnership with health care providers and the DMEPOS supplier is essential.<sup>xiv</sup>

## (3) Reaching

The ability to reach and retrieve objects is an important function to MRADL participation. Wheelchair users must reach overhead roughly five times more than non-wheelchair users.<sup>xv</sup> In the home setting, wheelchair users regularly need to reach above shoulder height for items in a refrigerator, items in upper cabinets in the kitchen, and use of over-the-stove microwaves.<sup>xvi</sup> Without vertical support offered by the seat elevation system, regularly overextending is a great risk of injury and pain for wheelchair users.<sup>xvii</sup>

## (4) Line of Sight

It is important to have a clear view to safely navigate around a space. The wheelchair user population relies on sight more than their ambulatory counterparts due to the difference in their line of sight.<sup>xviii</sup> Studies have reported wheelchair users regularly extend their cervical spine, such as when looking at a seated person, looking at computer screens, and looking at a standing person.<sup>xix,xx</sup> The repeated cervical extension by wheelchair users due to constantly looking up to navigating and performing MRADL may cause physical pain and injury. Research has found that power wheelchair users report more neck pain and majority of wheelchair users reported neck and back pain after using their wheelchairs.<sup>xxi,xxii</sup> The same study found that 40% of the wheelchair users that experienced pain limited their daily tasks.<sup>xxiii</sup> Seat elevation systems reduce the strain associated with cervical spine extension.

A wheelchair consumer's ability to securely transfer, perform and participate in MRADLs, ability to reach and retrieve objects, and facilitate his/her line of sight necessary to navigate and perform MRADLs are all equally important medical needs offered by seat elevation systems. Available scientific literature supports the benefits and clinical significance of seat elevation systems. Medicare coverage of this important technology will improve the safety and quality of the life for wheelchair consumers.

## Conclusion

AAHomecare strongly supports the ITEM Coalition's Formal "Request for Reconsideration of the Medicare National Coverage Determination for Mobility Assistive Equipment (§280.3) to include Seat Elevation Systems and Standing Systems for Group 3 Complex Rehabilitative Power Wheelchairs," and urges CMS to adopt the ITEM Coalition's recommendations. Thank you for the opportunity to comment. Please contact me at [kimb@aahomecare.org](mailto:kimb@aahomecare.org) for further information.

Sincerely,

Kim Brummett  
Senior VP, Regulatory Affairs  
American Association for Homecare

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<sup>i</sup> ITEM Coalition, “Request for Reconsideration of the Medicare National Coverage Determination for Mobility Assistive Equipment (§280.3) to include Seat Elevation Systems and Standing Systems for Group 3 Complex Rehabilitative Power Wheelchairs.” (ITEM Coalition Request Letter)

<sup>ii</sup> ITEM Coalition Request Letter. Page 3.

<sup>iii</sup> 42 C.F.R. § 414.202.

<sup>iv</sup> *Id.*

<sup>v</sup> Centers for Medicare and Medicaid Services, Medicare Coverage Database, National Coverage Analysis Seat Elevation Systems as an Accessory to Power Wheelchairs (Group 3). Accessed on September 1, 2022 at:

<https://www.cms.gov/medicare-coverage-database/view/ncacal-tracking-sheet.aspx?ncaid=309&ncacaldoctype=NCA&status=Open+for+Public+Comment&sortBy=status&bc=17>

<sup>vi</sup> ITEM Coalition Request Letter. Pages 19-51.

<sup>vii</sup> Arva J, Schmeler MR, Lange ML, Lipka DD, Rosen LE. RESNA position on the application of seat-elevating devices for wheelchair users. *Assist Tech*. 2009;21(2):69-72. doi: 10.1080/10400430902945587.

<sup>viii</sup> Finley MA, McQuade KJ, Rodgers MM. Scapular kinematics during transfers in manual wheelchair users with and without shoulder impingement. *Clin Biomech*. 2005;20:32-40. doi:10.1016/j.clinbiomech.2004.06.011.

<sup>ix</sup> Alm M, Saraste H, Norrbrink C. Shoulder pain in persons with thoracic spinal cord injury: prevalence and characteristics. *J Rehabil Med*. 2008;40:277-283, doi: 10.2340/16501977-0173; Curtis KA, Roach KE, Applegate EB, et al. Development of the Wheelchair User’s Shoulder Pain Index (WUSPI). *Paraplegia*. 1995;33(5)290-293.

<sup>x</sup> Gellman H, Sie I, Waters RL. Late complications of the weight-bearing upper extremity in the paraplegic patient. *Clinical Orthopaedics and Rehabilitation Research*. 1987;233:132-135.

<sup>xi</sup> *Id.*

<sup>xii</sup> Sonenblum SE, Maurer CL, Hanes CD, Piriano J, Sprigle SH. Everyday use of power adjustable seat height (PASH) systems. *Assist Technol*. 2019. doi: 10.1080/10400435.2019.1634659; Sprigle S. Survey of users of wheelchair seat elevators. Georgia Institute of Technology. 2017.

<sup>xiii</sup> Schiappa V, Piriano J, Bernhardt L, et al. RESNA position on the application of seat elevation devices for power wheelchair users: literature update 2019. September 25, 2019.; Ding D, Leister E, Cooper RA et al. Usage of tilt-in-space, recline, and elevation seating functions in natural environment of wheelchair users. *J Rehabil Res Dev*. 2008;45(7):973-984, doi: 10.1682/JRRD.2007.11.0178; Sprigle S. Survey of users of wheelchair seat elevators. Georgia Institute of Technology. 2017.

<sup>xiv</sup> Eggers SL, Myaskovsky L, Burkitt KH et al. A preliminary model of wheelchair service delivery. *Arch Phys Med Rehabil*. 2009;90:1030-1038. doi:10.1016/j.apmr.2008.12.007.

<sup>xv</sup> Requejo PS, Mulroy SJ, Haubert LL, Newsam CJ, Gronley JK, Perry J. Evidence-based strategies to preserve shoulder function in manual wheelchair users with spinal cord injury. *Top Spinal Cord Inj Rehabil*. 2008;13(4)86-119. doi:10.1310/sci1304-86.

<sup>xvi</sup> Schiappa V, Piriano J, Bernhardt L, et al. RESNA position on the application of seat elevation devices for power wheelchair users: literature update 2019. September 25, 2019; Sonenblum SE, Maurer CL, Hanes CD, Piriano J, Sprigle SH. Everyday use of power adjustable seat height (PASH) systems. *Assist Technol*. 2019. doi: 10.1080/10400435.2019.1634659.

<sup>xvii</sup> ITEM Coalition Request Letter. Pages 28-29.

<sup>xviii</sup> Kirby RL, Fahie CL, Smith C, Chester EL, MacLeod DA. Neck discomfort of wheelchair users: effect of neck position. *Disabil Rehab*. 2004;26(1):9-15. doi: 10.1080/09638280310001621451.

<sup>xix</sup> Kirby RL, Fahie CL, Smith C, Chester EL, MacLeod DA. Neck discomfort of wheelchair users: effect of neck position. *Disabil Rehab*. 2004;26(1):9-15. doi: 10.1080/09638280310001621451.

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<sup>xx</sup> Sabari J, Shea M, Chen L, Laurenceau A, Leung E. Impact of wheelchair seat height on neck and shoulder range of motion during functional task performance. *Assist Technol.* 2016;28(3):184-189. doi: 10.1080/10400435.2016.1140692.

<sup>xxi</sup> Kirby RL, Fahie CL, Smith C, Chester EL, MacLeod DA. Neck discomfort of wheelchair users: effect of neck position. *Disabil Rehab.* 2004;26(1):9-15. doi: 10.1080/09638280310001621451.

<sup>xxii</sup> Boninger ML, Cooper RA, Fitzgerald SG, et al. Investigating neck pain in wheelchair users. *Am J Phys Med Rehabil.* 2003;82:197-202. doi: 10.1097/01.PHM.0000054217.17816.DD.

<sup>xxiii</sup> *Id.*