Durable Medical Equipment

1. MCG Criteria Used

Clinical Criteria: MCG Care Guidelines, 30th Edition

- Walker (MCG ORG: A-0881 AC, 30th Edition)
- Hospital Bed, Semi-Electric or Total Electric (MCG ORG: A-0878 AC, 30th Edition)

Applicable CPT / HCPCS Codes:

CPT / HCPCS Code	Description
E0130, E0135	Walker, rigid (pickup) or folding (wheeled), adjustable or fixed height
E0140, E0141	Walker with trunk support, or rigid wheeled walker without seat, adjustable or fixed height
E0143, E0144	Walker, folding, wheeled, with or without seat; or enclosed four-sided framed wheeled walker with posterior seat
E0147-E0149	Heavy-duty multiple-braking-system walker, heavy-duty walker without wheels, or heavy-duty wheeled walker
E0150-E0157	Additional walker types and accessories (e.g., gait trainer, leg extensions, seat attachment, crutch attachment)
E0260, E0261	Hospital bed, semi-electric (head and foot adjustment), with or without mattress and side rails
E0265, E0266	Hospital bed, total electric (head, foot, and height adjustment), with or without mattress and side rails
E0294-E0297	Hospital bed, semi-electric or total electric, with or without mattress and with or without side rails (additional configurations)
E0329	Hospital bed, pediatric, electric or semi-electric, with or without mattress

2. Statement of Rationale

Akido Labs uses the criteria in MCG Care Guidelines (30th Edition) to supplement the general Medicare criteria regarding durable medical equipment, including walkers and semi-electric or total electric hospital beds, where Medicare coverage criteria are not fully established or require additional clinical specificity. MCG criteria are used to ensure consistency in reviewing the conditions to be met for coverage of durable medical equipment and to determine when such equipment is medically necessary.

Durable medical equipment supports safe mobility and care at home for the Medicare Advantage population, in which impaired ambulation, falls risk, and conditions requiring specific body positioning or transfer assistance are common. Walkers address mobility deficits not resolved by lesser assistive devices, and semi-electric or total electric hospital beds address positioning, transfer, respiratory, and special-equipment needs that a standard bed cannot meet. Appropriate, evidence-based criteria help ensure that equipment is provided when it is needed and is not

provided when a lesser device would suffice. Absent consistent criteria, there is material risk of both inappropriate denial of medically necessary equipment and inappropriate approval of equipment that exceeds clinical need.

Potential Clinical Harms:

Walker: Inappropriate denial of a walker for a patient with impaired ambulation, limited weight-bearing status, or a mobility deficit not resolved by a cane or crutches, who is able to ambulate with and safely use a walker, could result in immobility, deconditioning, falls, fall-related fracture, and loss of independence. In an elderly population, denial of an appropriate ambulatory assistive device materially increases fall risk and its downstream morbidity and mortality.

Hospital Bed: Inappropriate denial of a semi-electric or total electric hospital bed for a patient whose medical condition requires body positioning that cannot be achieved in an ordinary bed could prevent management of conditions such as edema, contracture, and pressure injury, and could impede safe transfer to a chair, wheelchair, or standing position in patients with hip fracture, spinal cord injury, or stroke. Denial of head-of-bed elevation greater than 30 degrees, where pillows and wedges are insufficient, could worsen respiratory compromise in heart failure or pulmonary disease and increase the risk of aspiration and ventilator-associated pneumonia during enteral feeding. Denial of a bed required to support attached special equipment such as traction or an overhead trapeze could prevent necessary treatment and safe mobility.

Clinical Benefits:

Walker: MCG criteria provide validated indications drawn from published evidence and a systematic review of mobility-related assistive devices, requiring that ambulation is impaired, that a lesser device does not sufficiently resolve the mobility deficit, and that the patient is able to ambulate with and safely use a walker. By tying provision to these specific findings, the criteria directly counter the harm of immobility, falls, and loss of independence identified above while ensuring the device matches the patient's functional need. The guideline notes that for impaired ambulation the evidence demonstrates a net benefit, of less than moderate certainty, consistent with common standard care.

Hospital Bed: MCG criteria specify the qualifying conditions for a semi-electric or total electric hospital bed and tie each to clinical evidence. For body positioning that cannot be achieved in an ordinary bed, a national clinical practice guideline supports a home total electric hospital bed for patients whose mobility issues prohibit use of a standard bed and who require positioning for pressure relief, improved respiratory function, contracture prevention, or pain relief (e.g., multiple limb amputation, severe arthritis, spinal cord disorders, stroke), directly countering the harm of unmanaged edema, contracture, and pressure injury identified above. For head-of-bed elevation greater than 30 degrees, a review article establishes that an adjustable bed is necessary when pillows and wedges are insufficient, and a feasibility study of 15 ventilated patients receiving tube feeding found that elevation greater than 30 degrees reduced oral secretion volume, reflux, and aspiration without development of pressure ulcers, directly addressing the respiratory and aspiration harms identified above. For attached special equipment, evidence establishes that a fracture frame, overhead trapeze, or traction equipment must be attached to a hospital bed for proper use, addressing the harm of withheld necessary treatment identified above.

Reduction of unwarranted variation and overutilization: MCG criteria identify when a lesser assistive device or alternative is sufficient (e.g., cane or crutches for a walker; bed grab rail, bed risers, low-height or conventional bed, or positioning equipment such as pillows and wedges for a hospital bed) and require documentation of functional need and the patient's or caregiver's ability to operate the equipment, reducing provision of equipment that exceeds clinical need. The clinical benefits of using MCG Care Guidelines are highly likely to outweigh any clinical harms, including delayed or decreased access to services. The criteria are unlikely to lead to inappropriate denials because they incorporate indications drawn directly from current evidence, specialty and national clinical practice guidelines, and standard practice. Use of these criteria ensures patients receive the most clinically appropriate equipment, and decreases inappropriate denials by applying a

consistent, objective, evidence-based set of review criteria across the Medicare Advantage population.

3. Explanation of Supplementation

Basis for Use:

Original Medicare clinical criteria for durable medical equipment are addressed in part by national and local coverage policy but are not fully established for every clinical circumstance, and require supplementation to ensure consistent medical necessity determinations for walkers and hospital beds. While Medicare statutes establish the general 'reasonable and necessary' standard and CMS maintains durable medical equipment coverage policy, the available determinations do not specify the full set of functional thresholds (e.g., the degree of ambulation impairment and failure of lesser devices for a walker, or the positioning, transfer, respiratory, and special-equipment conditions for a hospital bed) required to distinguish indicated from nonindicated equipment. Where a national or local coverage determination applies, MCG criteria are used to supplement and do not replace, modify, or supersede it.

Applicable Medicare References:

- Social Security Act Section 1862(a)(1): 'Reasonable and necessary' standard
- Medicare Benefit Policy Manual, Chapter 14: Medical Devices (CMS IOM Publication 100-02)
- Medicare Benefit Policy Manual, Chapter 15: Covered Medical and Other Health Services, including the durable medical equipment benefit (CMS IOM Publication 100-02)
- Medicare Benefit Policy Manual, Chapter 16: General Exclusions from Coverage (CMS IOM Publication 100-02)
- Medicare Program Integrity Manual, Chapter 6, Section 6.5: Medical Review of Inpatient Hospital Claims for Part A Payment (CMS IOM Publication 100-08)
- Code of Federal Regulations: 42 CFR 419.22; 42 CFR 422.101
- National Coverage Determinations: CMS maintains durable medical equipment coverage policy and the National Coverage Determinations Manual provisions applicable to walkers and hospital beds; applicable NCDs and LCDs are followed first, and MCG criteria are used to supplement and do not replace them. For circumstances not fully addressed by an NCD or LCD, Original Medicare criteria are not fully established, requiring supplementation.
- Medicare Coverage Database: https://www.cms.gov/medicare-coverage-database/search.aspx

Within the above statutes and regulations, coverage criteria for these specific durable medical equipment items are not fully established, and the use of MCG Care Guidelines is necessary to provide additional clinical specificity. Specifically, MCG criteria assist in determining:

- Medical necessity and appropriateness of a walker for impaired ambulation, including the requirement that a lesser device does not sufficiently resolve the mobility deficit and that the patient can safely use a walker;
- Medical necessity and appropriateness of a semi-electric or total electric hospital bed based on the qualifying conditions of body positioning that cannot be achieved in an ordinary bed, head-of-bed elevation greater than 30 degrees where pillows and wedges are insufficient, or the need to support attached special equipment, together with the patient's or caregiver's ability to operate the bed;
- Appropriate equipment selection matched to the patient's functional need, including consideration of bariatric equipment for patients with a body mass index of 35 or greater.

The use of MCG Care Guidelines ensures consistency in reviewing the conditions to be met for coverage of durable medical equipment. Use of these criteria to supplement the coverage criteria noted above provides clinical benefits by helping ensure equipment is not incorrectly denied when medically appropriate for a particular patient, nor incorrectly approved when not reasonable and necessary. The clinical benefits of using these criteria are highly likely to outweigh any clinical harms, including from inappropriate denials, because the criteria are unlikely to lead to inappropriate denials. The added criteria will provide numerous clinical benefits in helping ensure patients receive the appropriate level of care. In addition, use of the criteria may decrease inappropriate denials by creating a consistent set of evidence-based review criteria.

4. Summary of Clinical Evidence

Background

Walker (MCG ORG: A-0881 AC)

A walker is durable medical equipment indicated when ambulation is impaired such that mobility-related activities of daily living cannot be completed, cannot be completed in a reasonable amount of time, or cannot be completed safely; when weight-bearing status is limited; and when a lesser ambulatory assistive device such as a cane or crutches does not sufficiently resolve the mobility deficit, provided the patient is able to ambulate with and safely use a walker. Prescriptions may include a standard walker, hemi-walker, and related types. This MCG care guideline may overlap CMS guidance located in statutes and regulations; applicable NCDs, LCDs, and other regulations are followed first, and MCG criteria supplement but do not replace them.

Hospital Bed, Semi-Electric or Total Electric (MCG ORG: A-0878 AC)

A hospital bed includes a headboard and footboard, locking and unlocking casters, and a mattress supported by metal panels or a spring frame, and may include integrated bed rails. Semi-electric beds allow motorized changes to upper and lower body positions but require manual height adjustment, while total electric beds allow motorized adjustment of upper body, lower body, and bed height. A semi-electric or total electric hospital bed is indicated when the patient's clinical condition requires a hospital bed for body positioning that cannot be accomplished in an ordinary bed, for elevation of the head of the bed to more than 30 degrees where pillows and wedges are insufficient, or to support special equipment such as traction equipment or an overhead trapeze, and when the patient or caregiver is able to operate the bed controls and adjust the bed position. Patients with a body mass index of 35 or greater should be evaluated for possible need of a bariatric bed. This MCG care guideline may overlap CMS guidance located in statutes and regulations; for Medicare Advantage beneficiaries, applicable NCDs, LCDs, and other regulations are followed first, and MCG criteria supplement but do not replace them.

Evidence Summary

Walker (MCG ORG: A-0881 AC)

The evidence for the clinical indications in this guideline includes 19 published peer-reviewed articles and 2 book sections. Key evidence includes:

- For patients whose ambulation is impaired, evidence demonstrates a net benefit, of less than moderate certainty, consistent with consensus opinion and common standard care. A systematic review of the use of mobility-related assistive devices supports walker provision for appropriately selected patients.
- The criteria require that a lesser assistive device does not sufficiently resolve the mobility deficit and that the patient is able to ambulate with and safely use the walker, matching the device to functional need.

Hospital Bed, Semi-Electric or Total Electric (MCG ORG: A-0878 AC)

The evidence for the clinical indications in this guideline includes 12 published peer-reviewed articles, 3 specialty society or other evidence-based guidelines, and 2 book sections. Key evidence includes:

- For body positioning due to a medical condition that requires a hospital bed, evidence demonstrates a net benefit, of less than moderate certainty. A national clinical practice guideline states that a home total electric hospital bed is indicated for patients whose permanent or temporary mobility issues prohibit use of a standard bed and who require body positioning for pressure relief, improved respiratory function, contracture prevention, or pain relief (e.g., multiple limb amputation, severe arthritis, spinal cord disorders, stroke). An adjustable bed that elevates the lower extremities may be needed to manage conditions such as edema, and adjustable bed height can facilitate transfers and promote independence and safety for stroke patients.
- For elevation of the head of the bed to more than 30 degrees due to respiratory issues or risk for aspiration, evidence demonstrates a net benefit, of less than moderate certainty. A review article notes that when the head of the bed must be elevated greater than 30 degrees an adjustable hospital bed is necessary, and a feasibility study of 15 ventilated patients receiving tube feeding found that elevation greater than 30 degrees reduced oral secretion volume, reflux, and aspiration without development of pressure ulcers.
- For special equipment that requires a hospital bed, evidence demonstrates a net benefit, of less than moderate certainty. Certain specialized equipment, such as a fracture frame, overhead trapeze, or traction equipment, must be attached to a hospital bed for proper use.

Rationale (from MCG)

Use of these MCG care guidelines helps the clinician determine whether a particular treatment, medication, or service might be appropriate for a specific patient, taking into account their unique health complexities, and helps identify patient-specific complex clinical factors that determine the medical necessity and appropriate selection of durable medical equipment. The evidence-based clinical criteria assist the clinician in deciding when a walker or hospital bed is appropriate based on functional impairment, positioning and safety needs, and the sufficiency of lesser alternatives. Utilizing evidence-based clinical criteria promotes patient safety by helping ensure that potential patient benefits outweigh the risks, and increases consistency in treatment thresholds, leading to less variation in care and promoting equitable treatment among patients. Appropriate use of the evidence-based clinical criteria ensures Medicare patients receive full access to Medicare benefits without risk of delay or decreased access. These guidelines supplement but do not replace, modify, or supersede existing Medicare regulations or applicable National Coverage Determinations (NCDs) or Local Coverage Determinations (LCDs).

Related CMS Coverage Guidance (as cited in MCG 30th Edition):

- Code of Federal Regulations (CFR): 42 CFR 419.22; 42 CFR 422.101
- CMS IOM Publication 100-02, Medicare Benefit Policy Manual: Chapter 14 (Medical Devices); Chapter 15 (Covered Medical and Other Health Services, including the durable medical equipment benefit); Chapter 16 (General Exclusions from Coverage)
- CMS IOM Publication 100-08, Medicare Program Integrity Manual, Chapter 6, Section 6.5
- National Coverage Determinations: CMS National Coverage Determinations Manual provisions applicable to durable medical equipment; followed first, with MCG criteria used to supplement
- Medicare Coverage Determinations: Medicare Coverage Database: https://www.cms.gov/medicare-coverage-database/search.aspx

References with Citation Summary -- Walker (MCG ORG: A-0881 AC, 30th Edition)

1. Chapter 1, Part 4 (Sections 200 - 310.1) Coverage Determinations Rev. 12590. In: Medicare National Coverage Determinations Manual [Internet] Centers for Medicare and Medicaid Services. 2024 Apr Accessed at:

https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/InternetOnly-Manuals-IOMs. [accessed 2025 Sep 09]

2. Hou JY, Reger SI, Sahgal V. Durable medical equipment. In: Walsh D, et al., editors. Palliative Medicine. 1st ed. Philadelphia, PA: Saunders Elsevier; 2009:565-573.
3. Bertrand K, Raymond MH, Miller WC, Martin Ginis KA, Demers L. Walking aids for enabling activity and participation: a systematic review. American Journal of Physical Medicine and Rehabilitation 2017;96(12):894-903. DOI: 10.1097/PHM.0000000000000836.
4. Murphy DP, Webster JB, Lovegreen W, Simoncini A. Lower limb orthoses. In: Cifu DX, et al., editors. Braddom's Physical Medicine and Rehabilitation. 6th ed. Philadelphia, PA: Elsevier; 2021:229-247.e2.
5. Sehgal M, Jacobs J, Biggs WS. Mobility assistive device use in older adults. American Family Physician 2021;103(12):737-744.
6. Hunter SW, Divine A, Omana H, Madou E, Holmes J. Development, reliability and validity of the Safe Use of Mobility Aids Checklist (SUMAC) for 4-wheeled walker use in people living with dementia. BMC Geriatrics 2020;20(1):468. DOI: 10.1186/s12877-020-01865-5.
7. Faruqui SR, Jaeblon T. Ambulatory assistive devices in orthopaedics: uses and modifications. Journal of the American Academy of Orthopedic Surgeons 2010;18(1):41-50.
8. Prihartadi AS, Impelliziere Licastro G, Pearson M, Johnson MJ, Luckett T, Swan F. Non-medical devices for chronic breathlessness: use, barriers and facilitators for patients, carers and clinicians - a scoping review. BMJ Supportive & Palliative Care 2021;Online. DOI: 10.1136/bmjspcare2021-002962.
9. Bloch ML, Jonsson LR, Kristensen MT. Introducing a third timed up & go test trial improves performances of hospitalized and community-dwelling older individuals. Journal of Geriatric Physical Therapy 201;40(3):121-126. DOI: 10.1519/JPT.0000000000000080.
10. Chang CK, et al. Improve elderly people's sit-to-stand ability by using new designed additional armrests attaching on the standard walker. Journal of the Chinese Medical Association 2018;81(1):81-86. DOI: 10.1016/j.jcma.2017.04.009.
11. Souza A, Kelleher A, Cooper R, Cooper RA, Iezzoni LI, Collins DM. Multiple sclerosis and mobility-related assistive technology: systematic review of literature. Journal of Rehabilitation Research and Development 2010;47(3):213-223.
12. Luz C, Bush T, Shen X. Do canes or walkers make any difference? Nonuse and fall injuries. Gerontologist 2017;57(2):211-218. DOI: 10.1093/geront/gnv096.
13. Hill K, Ng LWC, Cecins N, Formico VR, Cavalheri V, Jenkins SC. Effect of using a wheeled walker on physical activity and sedentary time in people with chronic obstructive pulmonary disease: a randomised cross-over trial. Lung 2020;198(1):213-219. DOI: 10.1007/s00408-019-00297-2.
14. Vaes AW, et al. Efficacy of walking aids on self-paced outdoor walking in individuals with COPD: A randomized cross-over trial. Respirology 2015;20(6):932-939. DOI: 10.1111/resp.12570.
15. Kegelmeyer DA, Parthasarathy S, Kostyk SK, White SE, Kloos AD. Assistive devices alter gait patterns in Parkinson disease: advantages of the four-wheeled walker. Gait & Posture 2013;38(1):20-24. DOI: 10.1016/j.gaitpost.2012.10.027.
16. Cubo E, Moore CG, Leurgans S, Goetz CG. Wheeled and standard walkers in Parkinson's disease patients with gait freezing. Parkinsonism and Related Disorders 2003;10(1):9-14.
17. Bryant MS, Pourmoghaddam A, Thrasher A. Gait changes with walking devices in persons with Parkinson's disease. Disability and Rehabilitation. Assistive Technology 2012;7(2):149-152. DOI: 10.3109/17483107.2011.602461. Conditions >Walker (A-0881)
18. National Coverage Determination (NCD) for mobility assistive equipment (MAE) (280.3). Medicare Coverage Database [Internet] Centers for Medicare and Medicaid Services. Accessed at: https://www.cms.gov/medicare-coverage-database/. Updated 2005 May [accessed 2024 Sep 27]
19. Paparone P. Lower extremity ulceration caused by medical scooter injury: a case series. Geriatric Nursing 2013;34(1):25-29. DOI: 10.1016/j.gerinurse.2012.06.011.
20. Hubbard Winkler SL, Wu S, Cowper Ripley DC, Groer S, Hoenig H. Medical utilization and cost outcomes for poststroke veterans who receive assistive technology devices from the Veterans Health Administration. Journal of Rehabilitation Research and Development 2011;48(2):125-134.
21. Odebiyi DO, Adeagbo CA. Ambulatory Devices: Assessment and Prescription, Prosthesis. [Internet] IntechOpen. 2020 Jan Accessed at: https://www.intechopen.com/chapters/70770. [accessed 2025 Sep 12] DOI: 10.5772/intechopen.89886.

22. van Riel KM, Hartholt KA, Panneman MJ, Patka P, van Beeck EF, van der Cammen TJ. Four-wheeled walker related injuries in older adults in the Netherlands. Injury Prevention 2014;20(1):11-15. DOI: 10.1136/injuryprev-2012-040593.
23. Holz A, et al. Exploring the views of individuals with chronic obstructive pulmonary disease on the use of rollators: a qualitative study. Journal of Cardiopulmonary Rehabilitation and Prevention 2018;38(1):49-53. DOI: 10.1097/HCR.0000000000000291.
24. Lee AL, Beauchamp MK, Goldstein RS, Brooks D. Clinical and physiological effects of rollators in individuals with chronic obstructive pulmonary disease: a systematic review. Journal of Cardiopulmonary Rehabilitation and Prevention 2018;38(6):366-373. DOI: 10.1097/HCR.0000000000000280.
25. Wheelchairs and seating. In: Sivan M, editor. Oxford Handbook of Rehabilitation Medicine. 3rd ed. Oxford UK: Oxford University Press; 2019:305- 317.
26. Mobility and gait. In: Sivan M, editor. Oxford Handbook of Rehabilitation Medicine. 3rd ed. Oxford UK: Oxford University Press; 2019:251-267.
27. Centers for Medicare and Medicaid Services. "Hospital services excluded from payment under the hospital outpatient prospective payment system." 42 CFR 419.22 Washington, DC 2023 Jul [accessed 2025 Jul 22] Accessed at: https://www.ecfr.gov/.
28. Centers for Medicare and Medicaid Services. "Requirements relating to basic benefits." 42 CFR 422.101 Washington, DC 2025 Jun 03 [accessed 2025 Jul 23] Accessed at: https://www.ecfr.gov/.
29. Centers for Medicare and Medicaid Services. Medicare Benefit Policy Manual. Chapter 14 - Medical Devices Rev. 198 [Internet] Centers for Medicare and Medicaid Services. 2014 Nov 06 Accessed at: https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/. [accessed 2025 Sep 09]
30. Centers for Medicare and Medicaid Services. Medicare Benefit Policy Manual. Chapter 15 - Covered Medical and Other Health Services Rev. 13108 [Internet] Centers for Medicare and Medicaid Services. 2025 Apr 11 Accessed at: https://www.cms.gov/manuals/. [accessed 2025 Sep 09]
31. Centers for Medicare and Medicaid Services. Medicare Benefit Policy Manual. Chapter 16 - General Exclusions From Coverage Rev. 198 [Internet] Centers for Medicare and Medicaid Services. 2014 Nov 06 Accessed at: https://www.cms.gov/Regulations-andGuidance/Guidance/Manuals/. [accessed 2025 Sep 09]
32. Medicare Coverage Database. [Internet] Centers for Medicare and Medicaid Services. Accessed at: https://www.cms.gov/medicare-coveragedatabase/search.aspx? Updated 2025 [accessed 2025 Oct 23]

References with Citation Summary -- Hospital Bed, Semi-Electric or Total Electric (MCG ORG: A-0878 AC, 30th Edition)

1. Sturman-Floyd M. Moving and handling: supporting bariatric residents. Nursing & Residential Care 2013;15(6):432-437.
2. European Pressure Ulcer Advisory Panel, National Pressure Injury Advisory Panel, and Pan Pacific Pressure Injury Alliance. Prevention and Treatment of Pressure Ulcers/Injuries: Clinical Practice Guideline. The International Guideline Online Living Guideline 4th Edition [Internet] National Pressure Injury Advisory Panel. 2025 Feb Accessed at: https://npiap.com/page/InternationalGuidelines. [accessed 2025 Sep 16]
3. Chapter 1, Part 4 (Sections 200 - 310.1) Coverage Determinations Rev. 12590. In: Medicare National Coverage Determinations Manual [Internet] Centers for Medicare and Medicaid Services. 2024 Apr Accessed at: https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Internet-Only-Manuals-IOMs. [accessed 2025 Sep 09]
4. Elias ER, Murphy NA, the Council on Children With Disabilities. Home care of children and youth with complex health care needs and technology dependencies. Pediatrics 2012;129(5):996-1005. DOI: 10.1542/peds.2012-0606.
5. Teel J, Wang JY, Loschiavo M. Durable medical equipment: a streamlined approach. Family Practice Management 2021 Mar-Apr;28(2):15-20.
6. Hou JY, Reger SI, Sahgal V. Durable medical equipment. In: Walsh D, et al., editors. Palliative Medicine. 1st ed. Philadelphia, PA: Saunders Elsevier; 2009:565-573.
7. A Guide to Bed Safety. Bed rails in hospitals, nursing homes and home health care: the facts. FDA Public Health Notification [Internet] U.S. Food and Drug Administration. 2010 Apr (FDA reaffirmed

2017) Accessed at: https://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/. [created 2000; accessed 2025 Sep 17]
8. Keeling C. Practical and ethical use of bed rails. Nursing & Residential Care 2013;15(4):203.
9. Davis KG, Kotowski SE. Role of bed design and head-of-bed articulation on patient migration. Journal of Nursing Care Quality 2015 Jul-Sep;30(3):E1-E9. DOI: 10.1097/NCQ.0000000000000115.
10. Adaptations manual: for Children and Adults With Muscle-Wasting Conditions. [Internet] Muscular Dystrophy UK. version 2; 2022 Accessed at: https://www.musculardystrophyuk.org/. [accessed 2025 Sep 12]
11. Wiggermann N, Smith K, Kumpar D. What bed size does a patient need? The relationship between body mass index and space required to turn in bed. Nursing Research 2017 Nov/Dec;66(6):483-489. DOI: 10.1097/NNR.0000000000000242.
12. Clinical Practice Recommendations for Prescription of Electric Hospital Beds for the Home Setting. VHA Prosthetic Clinical Management Program (PCMP) [Internet] U.S. Department of Veterans Affairs Rehabilitation and Prosthetic Services. 2004 Aug Accessed at: https://www.prosthetics.va.gov/. [accessed 2025 Sep 17]
13. De D, Wynn E. Preventing muscular contractures through routine stroke patient care. British Journal of Nursing 2014;23(14):781-786. DOI: 10.12968/bjon.2014.23.14.781.
14. Atrice MB, Ackerman PM, Webber K, Pharo E, Sasso-Lance E, Hammad R. Traumatic spinal cord injury. In: Lazaro RT, Reina-Guerra SG, Quiben MU, editors. Umphred's Neurological Rehabilitation. 7th ed. St. Louis, MO: Elsevier Mosby; 2019:393-454.e10.
15. Johnson KL, Meyenburg T. Physiological rationale and current evidence for therapeutic positioning of critically ill patients. AACN Advanced Critical Care 2009 Jul-Sep;20(3):228-242. DOI: 10.1097/NCI.0b013e3181add8db.
16. Burk RS, Grap MJ. Backrest position in prevention of pressure ulcers and ventilator-associated pneumonia: conflicting recommendations. Heart and Lung 2012;41(6):536-545. DOI: 10.1016/j.hrtlng.2012.05.008.
17. Hodgkinson R, Smith A. Bed management guidelines: the Bolton model. Equipment Services 2007; (Oct):102-105.
18. Schallom M, Dykeman B, Metheny N, Kirby J, Pierce J. Head-of-bed elevation and early outcomes of gastric reflux, aspiration and pressure ulcers: a feasibility study. American Journal of Critical Care 2015;24(1):57-66. DOI: 10.4037/ajcc2015781.
19. Griffiths H. Manual handling risk management: critical care beds and support systems. Nursing Standard 2006 Apr 19-25;20(32):45-53. DOI: 10.7748/ns2006.04.20.32.45.c4126.
20. Khan BA, et al. Effect of bed head elevation during sleep in symptomatic patients of nocturnal gastroesophageal reflux. Journal of Gastroenterology and Hepatology 2012;27(6):1078-1082. DOI: 10.1111/j.1440-1746.2011.06968.x.
21. Centers for Medicare and Medicaid Services. "Hospital services excluded from payment under the hospital outpatient prospective payment system." 42 CFR 419.22 Washington, DC 2023 Jul [accessed 2025 Jul 22] Accessed at: https://www.ecfr.gov/.
22. Centers for Medicare and Medicaid Services. "Requirements relating to basic benefits." 42 CFR 422.101 Washington, DC 2025 Jun 03 [accessed 2025 Jul 23] Accessed at: https://www.ecfr.gov/.
23. Centers for Medicare and Medicaid Services. Medicare Benefit Policy Manual. Chapter 14 - Medical Devices Rev. 198 [Internet] Centers for Medicare and Medicaid Services. 2014 Nov 06 Accessed at: https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/. [accessed 2025 Sep 09]
24. Centers for Medicare and Medicaid Services. Medicare Benefit Policy Manual. Chapter 15 - Covered Medical and Other Health Services Rev. 13108 [Internet] Centers for Medicare and Medicaid Services. 2025 Apr 11 Accessed at: https://www.cms.gov/manuals/. [accessed 2025 Sep 09]
25. Centers for Medicare and Medicaid Services. Medicare Benefit Policy Manual. Chapter 16 - General Exclusions From Coverage Rev. 198 [Internet] Centers for Medicare and Medicaid Services. 2014 Nov 06 Accessed at: https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/. [accessed 2025 Sep 09]
26. Medicare Coverage Database. [Internet] Centers for Medicare and Medicaid Services. Accessed at: https://www.cms.gov/medicare-coverage-database/search.aspx? Updated 2025 [accessed 2025 Oct 23]

5. Public Accessibility

Transparency Tool URL:

https://akido.access.mcg.com/index

Coverage Summaries URL:

https://www.myfamilymg.com/medical-necessity-supplementation-criteria/documents

Navigation Instructions:

To access these coverage summaries, navigate to the UM Criteria page, scroll to the bottom of the page, and click the Medical Necessity Supplementation Criteria link. All summaries are organized alphabetically by category.