

Toileting Related Injuries: A Focused Review

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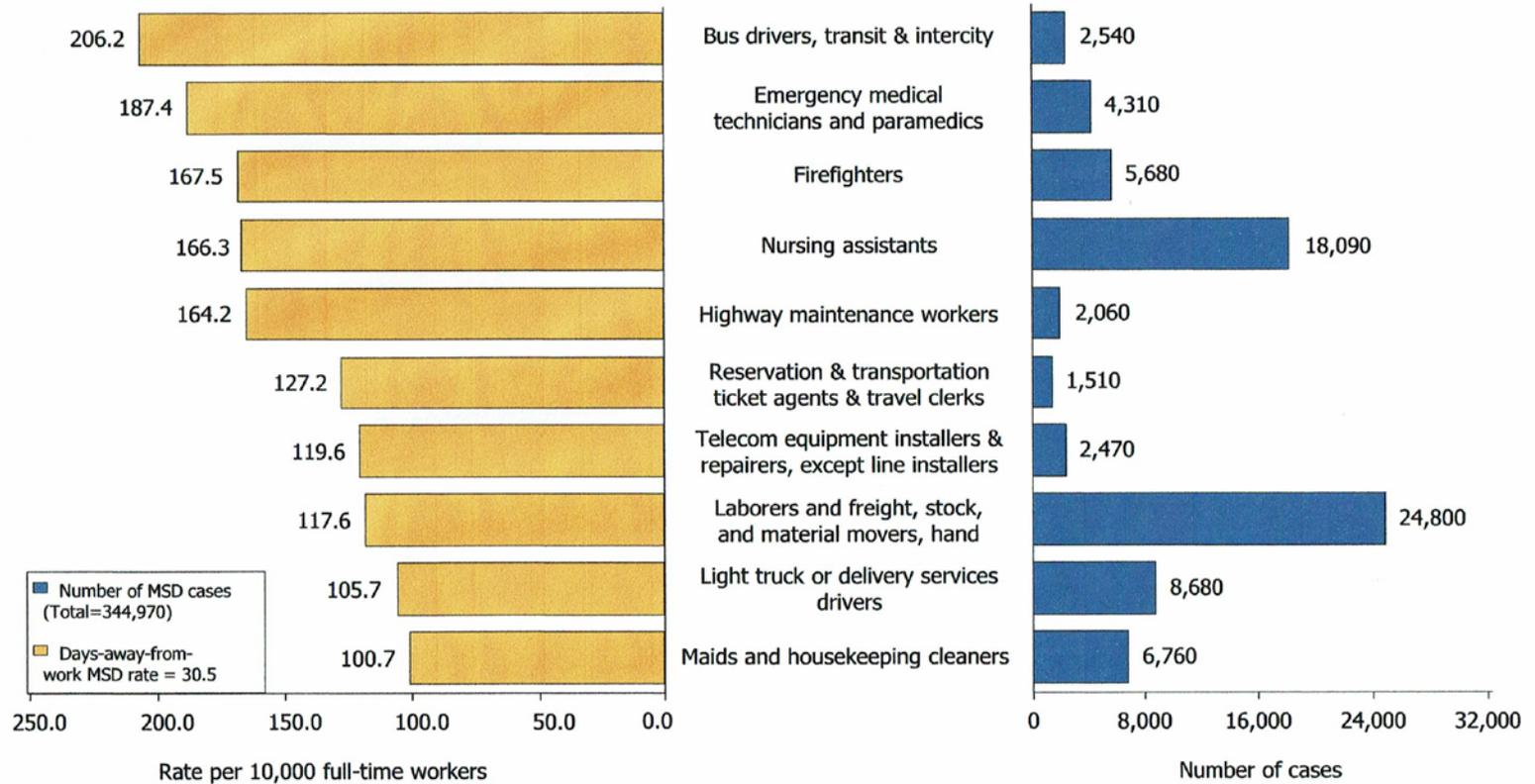
National Occupational Research Agenda (NORA) SPHM Research Objectives

- **Assess how work organization impacts BOTH WORKER AND PATIENT SAFETY (#1)**
 - Develop tools/protocols to increase support of safe patient handling and mobility programs by workers, managers, and executives (#8)
 - **Special topics:** distinct safe patient handling and mobility **needs** and explore the potential use of new, non-traditional assistive devices (#9)
 - Address gaps in safe patient handling and mobility education (#10)

[Retrieved 2/20/2019 from

https://www.cdc.gov/nora/councils/hcsa/pdfs/National_Occpational_Agenda_for_HCSA_February_2019-508.pdf.]

Nonfatal occupational injury and illness incidence rates and number of cases of musculoskeletal disorders by selected occupations, all ownerships, 2017



These ten occupations had at least 0.1 percent of total employment. The incidence rates for musculoskeletal-disorder cases increased for bus drivers from 173.3 cases per 10,000 full-time workers in 2016 and emergency medical technicians and paramedics from 167.3 cases per 10,000 full-time workers in 2016.

[View data](#)

Nursing Assistants Injury Rate

- ▶ Declining ↓
- ▶ **STILL 2x the RN rate**
- ▶ Particularly high in LTC, rehabilitation, orthopedics units
- ▶ More likely to have repeat injuries than their RN colleagues.

Walton AL, Rogers B. Workplace Hazards Faced by Nursing Assistants in the United States: A Focused Literature Review. *Int J Environ Res Public Health*. 2017;14(5):544. Published 2017 May 19. doi:10.3390/ijerph14050544
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5451994/pdf/ijerph-14-00544.pdf>

High Risk Tasks: Musculoskeletal Injury

- ▶ Ambulation
- ▶ Transfers
- ▶ Lateral transfers (person immobile)
- ▶ Repositioning in bed, wheelchair, chair
- ▶ Toileting, showering, bathing
- ▶ Floor/fall recovery
- ▶ Lifting Extremities
- ▶ Abdominal Area
- ▶ Perineal Area

Source: Chapter 5, "Patient Assessment, Care Planning, and Algorithms for Safe Patient Handling and Mobility," in Veterans Health Administration, Center for Engineering and Occupational Safety and Health, *Safe Patient Handling and Mobility Guidebook* (January 2011). Available from <http://www.tampavaref.org/safe-patient-handling/implementation-tools.htm>.

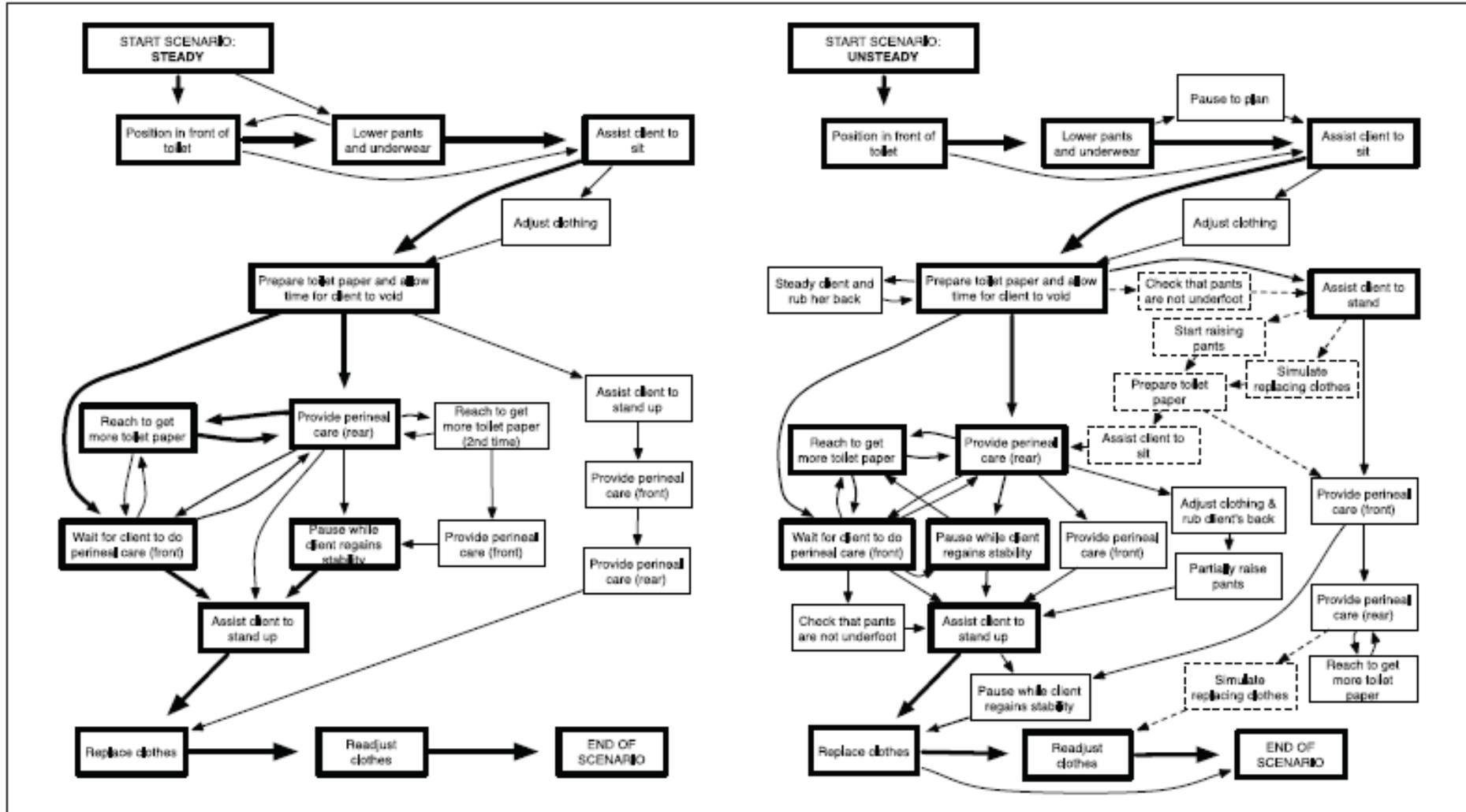


Figure 2. Assisted toileting activity sequences for the “steady” and “unsteady” scenarios.

Note. Heavier line weights for boxes and arrows indicate more frequent occurrences of the activity or path (between one and eight occurrences). Activities in dashed boxes were dressing-related errors by the caregiver that added otherwise unnecessary steps to the toileting procedure.

Source: King EC Boscart VM Weiss BM Assisting Frail Seniors with Toileting in a Home Bathroom: Approaches Used by Home Care Providers, Journal of Applied Gerontology, 2019

Figure 25. Percentage of long-term care services users needing any assistance with activities of daily living, by sector and activity: United States, 2015 and 2016



NOTES: Denominators used to calculate percentages for adult day services centers, nursing homes, and residential care communities were the number of participants enrolled in adult day services centers, the number of residents in nursing homes, and the number of residents in residential care communities on a given day in 2016, respectively. The denominator used to calculate the percentage for home health agencies was the number of patients whose episode of care ended at any time in 2015. Participants, patients, or residents were considered needing any assistance with a given activity if they needed help or supervision from another person or used assistive devices to perform the activity. See Appendix II for definitions of needing any assistance with activities of daily living used for each sector. Data on needing any assistance with activities of daily living were not available for hospice patients. Percentages are based on unrounded estimates.

SOURCES: NCHS, National Study of Long-Term Care Providers and Table VIII in Appendix III.

HHA: 4,455,700 clients. 3.4M in targeted population ((2015 data)

NH: 1,347,600 residents, 1.1M in targeted population (2016 data)

Toileting Assistance now?



Turn your feet and whole body—do not twist at the waist.

Have client's arms around your body, *not* your neck.

Put one foot forward, the other back.

Use a draw sheet to move a client in bed and move along the bed side to avoid reaching.



Keep your back straight



Foley catheter



Fracture Bedpan



Bedpan

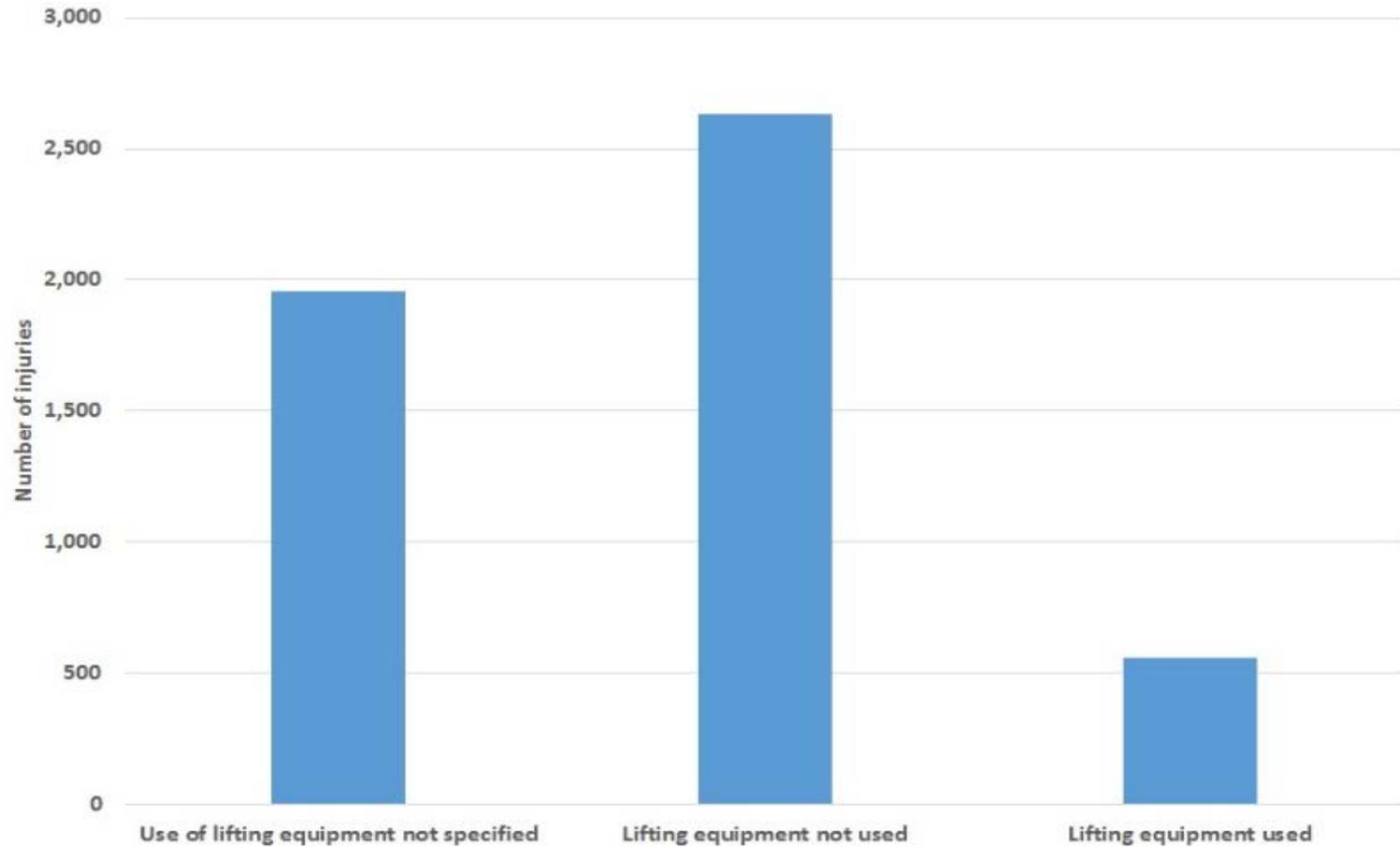


Female Urinal



Male Urinal

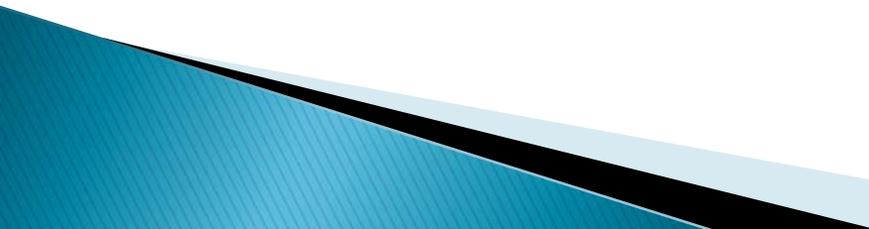
Patient handling injuries among all healthcare personnel* at 114 U.S. healthcare facilities participating in OHSN, 2012 - 2014†



Use/Non-Use of Lift Equipment

- ▶ Back injury research
- ▶ When patient handling equipment is used, injuries decrease, but...
- ▶ Provision of lift equipment is not enough to predict its use

(Walton et al, 2017)



Toileting Assistance:

- ▶ “Particularly frequent and difficult activity”
(King et al, 2018)
- ▶ “One of the hardest aspects of their job”
(Walton et al, 2017)
- ▶ Patients seen as willing to risk a fall rather than soil themselves
(Graham, 2018 unpublished preliminary data)

Toileting-Related Observations

- ▶ Excessive spinal loading, and ultimately musculoskeletal injury.
- ▶ High-risk activities (e.g., heavy lifting, awkward, and/or sustained postures).
- ▶ Solutions?
 - Eliminate the hazard
 - Promote mobility of the older person and reduce the extent of staff assistance required.

Coman RL Caponecchia C McIntosh AS Manual Handling in Aged Care: Impact of Environmental Interventions on Mobility, 2018 Occupational Safety and Health Research Institute, Published by Elsevier Korea LLC. This is an open access article under the CC BY-NC-ND license

Toileting Related Patient Falls

- ▶ 45% of in-patient falls are toileting-related
- ▶ Toileting assistance frequently mentioned in fall prevention guidance documents

*Tzeng HM Yin C Toileting Related In-Patient Falls Adult Acute Care Settings MedSurgNursing 2012,
URL: <https://pdfs.semanticscholar.org/ca54/6d06dfdf0a71bf8454aeb29b5d5c2584e1f1.pdf>
Ganz DA, Huang C, Saliba D, Preventing falls in hospitals a toolkit for improving quality of care.
(Prepared by RAND Corp, Boston University School of Public Health, and ECRI Institute for Agency for
Healthcare Research and Quality; January 2013. AHRQ Publication No. 13-0015-EF.
URL: <https://www.ahrq.gov/sites/default/files/publications/files/fallpxtoolkit.pdf>*

Patient Falls:

- ▶ Hospitals: NEVER event
- ▶ Post Acute: “ADVERSE” Event
- ▶ Reasons?
 - Improved reporting
 - Older, more impaired patients
 - Medications
- ▶ Bedside, Bathroom

Historically, hospitals have tried to reduce falls – and to some extent have succeeded – but significant, sustained reduction has proven elusive. (Joint Commission, 2015)

Source: Weill TP Patient falls in hospitals: An increasing problem [Geriatr Nurs.](#) 2015 Sep-Oct;36(5):342-7. doi: 10.1016/j.gerinurse.2015.07.004. Epub 2015 Aug 22.

Mobility-Related Toileting Disability

TYPICAL PATIENT TAXONOMY, MOBILITY MARKET



Albert

Barbara

Carl

Doris

Emma

Source: *Source: Bostelman R. National Institute of Standards and Technology, Survey of Patient Mobility and Lift Technologies: Toward Advancements and Standards, 2006, citing a taxonomy used by the Arjo Company.*

Patient Perspective

➤ Anxiety

Anticipating burden placed on the Caregiver

➤ Time Feels Endless To Someone Waiting

*To be walked to the bathroom,
Get on/off a Commode/bedpan or
Awaiting diaper/sheet change*

➤ Aware of Caregivers' Other Obligations

May have to wait: other tasks are taking Precedence

➤ Fear of Embarrassing Accidents

➤ Negative Feelings Associated with Waiting For Help

Staff Perspective

- Caregiver Guilt

May be unable to respond right away

- Time Feels Endless

To someone waiting for a patient “to go,” or teaching someone to toilet as scheduled

- Caregivers’ Other Obligations

Forced to make hard choices, stressful

- Need to Clean Up Embarrassing Accidents

- Bury Negative Feelings

Arising from knowing that a patient has been waiting

**Mobility Aids,
Toilet Substitutes,
Assistive Equipment**

Functional Dependency

Functional Independence

*Cheapest Products
Burdened staff?*

**BEST
INTEREST
OF THE
STAFF?
PATIENTS??**

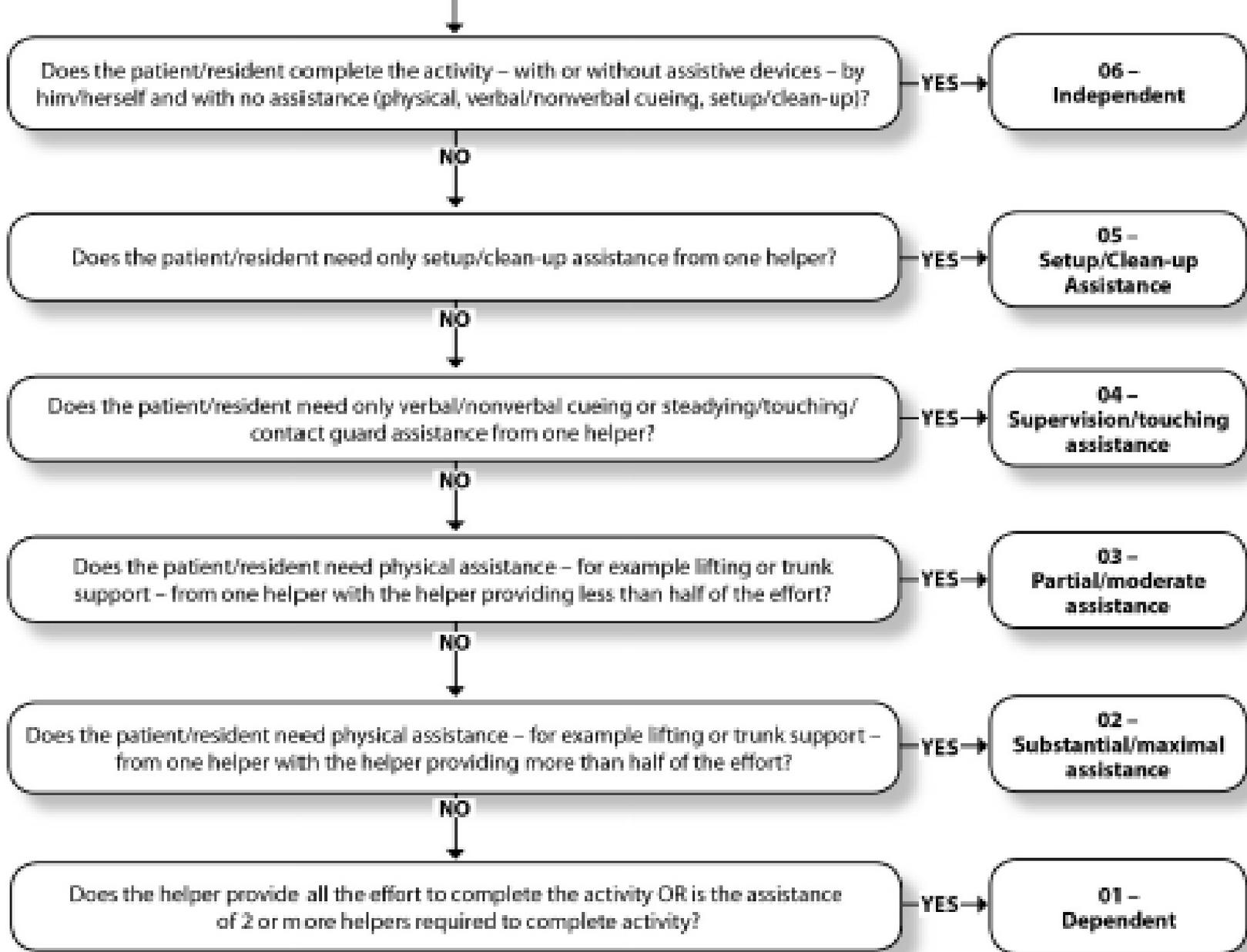
*Combat the
stigma of "old
age" devices*

Tool 1: Perception of High-Risk Tasks Survey

Directions: Assign a rank (from 1 to 10) to the tasks you consider to be the highest risk tasks contributing to musculoskeletal injuries for persons providing direct patient care. (A 10 should represent the highest risk and a 1 the lowest.) Consider the frequency of the task (high, moderate, low) and the musculoskeletal stress (high, moderate, low) when assigning a rank. Delete tasks not typically performed on your unit. Add tasks that are not on this list. You can have each nursing staff member complete the form and summarize the data, or you can have staff work together by shift to develop the rank by consensus.

<i>PATIENT HANDLING TASKS</i>	<i>TASK FREQUENCY</i> H= high M= moderate L= low	<i>STRESS OF TASK</i> H= high M= moderate L= low	<i>RANK</i> 10 = highest risk 1 = lowest risk
Transferring patient from bathtub to chair			
Transferring patient from wheelchair or shower/ commode chair to bed			
Transferring patient from wheelchair to toilet			
Transferring patient from bed to stretcher			
Lifting patient up from the floor			

Source: Adapted from B. D. Owen & A. Garg, *AAOHN Journal* 39, no. 1 (1991).

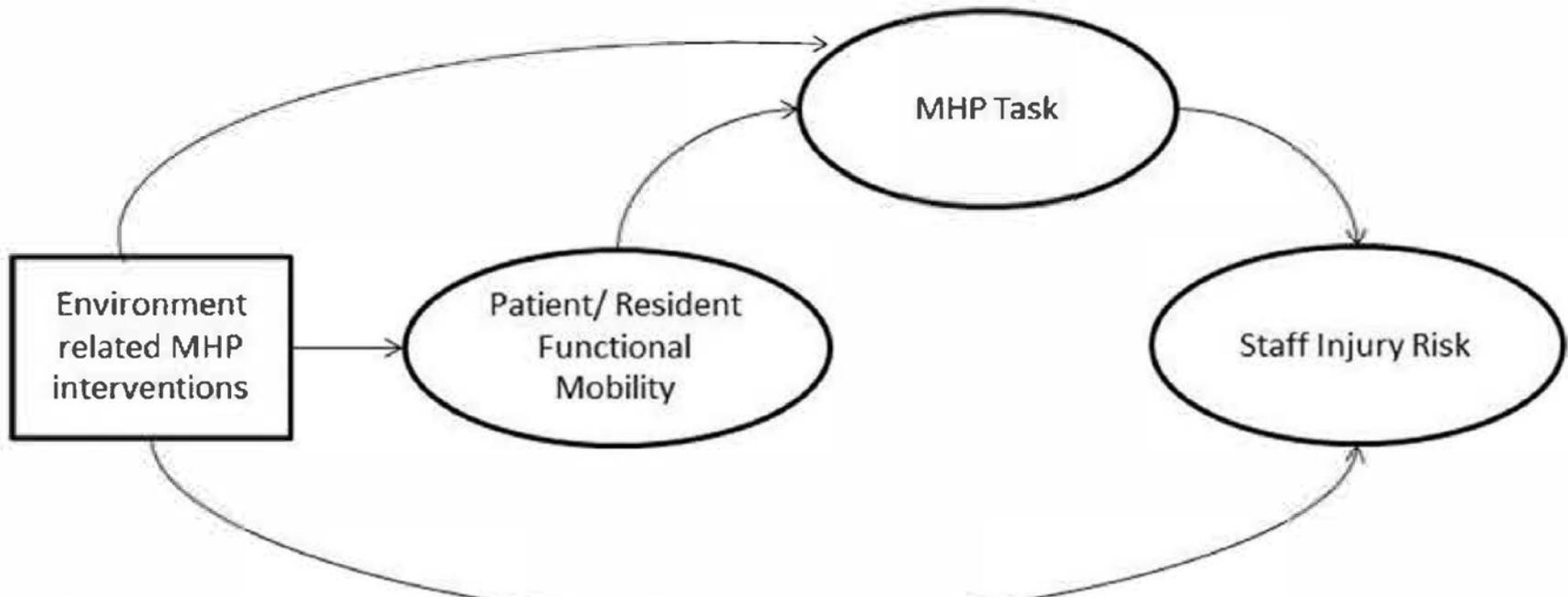


Source: CMS Medicare Learning Network

<https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/IRF-Quality-Reporting/Downloads/GG-Self-Care-and-Mobility-Activities-Decision-Tree.pdf>

Unifying Staff/Patient Safety

R.L. Coman et al / Impact of Environment-related MHP Interventions on Mobility



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