



PREVALENCE

- About 62% of elderly nursing home residents use a wheelchair
- Approximately 24% use a walker
- More than 6% use a cane

EFFECTS OF POOR MOBILITY

Some of the possible adverse effects of poor mobility include:

- Pressure sores
- Constipation
- Loss of muscle strength and power
- Pneumonia
- Circulatory problems
- Less strength for performing activities of daily living including transferring and walking
- Decreased bone density that also increases the risk of fractures
- Cardiovascular deconditioning, which may lead to postural hypotension, stroke and heart attack

DEFINITION OF MOBILITY

The ability to get around in one's environment with ease and without restriction. Impaired mobility implies that either the resident is physically unable or is unwilling to move about.

CAUSES OF POOR MOBILITY

Some causes of decline in ability to move about include:

- Musculoskeletal disorders – i.e. Arthritis, foot problems, fractures
- Neurological disorders – i.e. Stroke, Parkinson's
- Cardiovascular disorders – i.e. Severe congestive heart failure, angina, postural hypotension
- Circulatory problems
- Worsening illness
- Muscle loss (Sarcopenia)
- Decline in hearing or sight
- Pain or fear of discomfort
- Depression or anxiety
- Side effects from some medications – i.e. antipsychotic induced rigidity, postural hypotension
- Environmental factors – i.e. clutter or obstacles in rooms and hallways, architectural barriers
- Lack of assistive devices – i.e. handrails, walkers, appropriate footwear
- Enforced bed rest – i.e. immobilization of a fracture

BENEFITS OF INTERVENTION

Improving, maintaining, or helping to prevent the decline of resident's ability to move will enhance a resident's physical and mental state.



BENEFITS OF INTERVENTION (CONT.)

Active restorative care and range of motion exercise programs can:

1. decrease risk for some diseases
2. improve a resident's ability to move about by increasing overall endurance, strength, balance and gait
3. improve a resident's quality of life positively affecting both cognition and mood

Taking care of residents who are unable to walk or care for themselves requires increased amount of time from nursing staff as opposed to care of residents who are more mobile. Helping to improve resident strength, endurance and range of motion gives residents the ability to be more independent, participate in self-care and activities of interest, as well as decreases time and resources of staff for direct physical care, and may cut down on lifting injuries.

FURTHER READING AND WEB RESOURCES

A more detailed overview of mobility can be obtained by contacting your state Quality Improvement Organization (QIO). Visit http://www.ahqa.org/pub/connections/162_694_2450.cfm for contact information for your state QIO.

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Nursing Home Quality Initiative

FAST FACTS: MOBILITY Screening

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WHAT IS SCREENING?

A question or test to determine if a person may or may not need further evaluation for a problem or condition. If the result of the screening is positive, it should trigger a comprehensive evaluation of a resident's problem or condition. If the result is negative, the facility should conduct periodic re-screening.

WHY SCREEN FOR DECLINE IN MOBILITY?

Screening can be used to quickly find out if a resident may have problems moving about in rooms, hallways and around the facility. It can also be used to document skill level so that referrals can be made if more help is needed. It is useful to focus on balance and gait because these two factors play an important role in mobility.

SCREENING TOOLS

The MDS 2.0 offers two ways of screening residents to determine the need for a more intensive evaluation of problems related to mobility.

1. G-3, Test for Balance - tests a resident's ability to balance while standing and/or sitting without assistance
2. G-4, Functional Limitation in Range of Motion - screens a resident for the presence of functional limitation in range of joint motion or loss of voluntary movement.

Problems identified in either of these areas places the resident at increased risk of falls or injury, and can cause interference with daily functioning, especially with activities of daily living.

The Timed up and Go Test - A basic mobility test that can be used to screen for balance, gait and ambulation limitations. It allows for the use of ambulation aids during testing. The test involves a timed measure of the resident's ability to stand up from a chair, walk 3 meters, turn, walk back to the chair and sit down again. No physical assistance is given. Completion of this test in 11-20 seconds is considered within normal limits for frail elderly or disabled patients; a test time over 20 seconds indicates the need for a more thorough evaluation.

The Gait Speed Test - Gait speed has been associated with increased risk of falling in the elderly and can easily be easily measured by simply using a stopwatch and instructing the resident to walk a specified distance that includes acceleration and deceleration zones and covers 3 gait cycles.

The Wheelchair Skills Test - The test consists of 33 skills from least difficult (i.e. putting the brakes on) to more difficult, such as maneuvering through doors and around corners, and can help to document current skill and identify residents that are in need of interventions to improve skills.



**KEY STEPS
IN
SCREENING**

- Assign a person who will be responsible for screening and any follow-up (i.e. in-depth evaluation)
- Identify factors that might impair mobility (i.e. diseases or clutter in rooms)
- Be sure items G-3 and G-4 on the MDS 2.0 are accurate and complete
- Use a standardized screening tool for residents needing the help of a person or device.
- Identify residents who may benefit from in-depth evaluation (i.e. residents who require more than 20 seconds to complete the Timed Up and Go, and refer for further evaluation as necessary
- Develop a schedule for regular re-screening of resident mobility

**FURTHER
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RESOURCES**

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Revised Long-Term Care Resident Assessment Instrument User's Manual, December 2002, Version 2.0, 3:112. Available at: <http://www.cms.hhs.gov/medicaid/mds20/raich3.pdf> Last accessed 9/1/2004.

Tinetti ME. Performance-oriented assessment of mobility problems in elderly patients. *J Am Geriatr Soc* 1986 Feb;34(2):119-26.



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FAST FACTS: MOBILITY *Evaluation*

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EVALUATION OF MOBILITY

An evaluation is a more in-depth collection of additional information after a resident screens positively for a certain condition. Mobility evaluation entails identifying areas of resident’s self-performance and the amount and type of support being provided to the resident by direct care staff. The staff person designated to evaluate resident mobility should:

1. Review the resident’s medical record for current diagnoses, medications and prior mobility status
2. Speak with clinical and direct care staff (CNAs) from each shift to determine what the resident can do on his/her own and what level and type of staff assistance is provided, as well as if they feel the resident is capable of greater independence
3. Speak with the resident to determine resident goals for mobility, and if he/she feels that he/she is capable of greater independence

The staff person designated to evaluate mobility may find MDS 2.0 Section G (Physical Functioning and Structural Problems) helpful in providing a process to capture resident self-performance and staff assistance.

KEY STEPS IN EVALUATION

1. Perform a screening for mobility problems
2. Further evaluate through MDS Section G - Physical Functioning and Structural Problems
3. Complete a standardized evaluation tool to collect further information
 - Berg Balance Scale
 - Gait Speed Test
 - Wheelchair Skills Test
3. Refer to MD and/or licensed therapists (PT, OT) for help
4. Identify factors that make mobility worse or better (i.e. medication side-effects, assistive devices)
5. Develop a schedule for ongoing monitoring and re-evaluation of interventions
6. Modify interventions as needed until resident reaches his/her highest functional capability

EVALUATION TOOLS

Examples of some tools that nursing homes can use to evaluate residents include:

- The Berg Balance Scale - measures “functional balance” and tests a Resident’s ability to maintain position, adjust to voluntary movements and reaction to external disturbances. The test requires approximately 15 minutes to complete and tests a range of abilities



EVALUATION TOOLS (CONT.)

- Gait Speed Test - gait speed has been associated with increased risk of falling in the elderly and easily can be measured by simply using a stopwatch and instructing the resident to walk a specified distance that includes acceleration and deceleration zones and covers three gait cycles
- Wheelchair Skills Test - consists of 33 skills from least difficult (i.e. putting the brakes on) to more difficult, such as maneuvering through doors and around corners, and can help to document current skill and identify residents that are in need of interventions to improve skills

The combination of two existing tools to detect balance and mobility impairments, the Berg Balance Scale and Gait Speed Test, has proven to have the highest sensitivity (91%) and specificity (70%) when a subject tests positive on each test.

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