

Accidents and Supervision F-Tag 323: Clinical Practice Guidance on the Utilization of Fall Alarms for Residents at Fall Risk

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Guidance Objectives

To provide nursing facilities and nursing staff with practical guidance on meeting the supervisory requirements of F-Tag 323 and the use of fall alarms to help prevent avoidable falls.

Background

CMS (The Centers for Medicare and Medicaid Services) recently issued revised guidance to its accidents and supervision F-tags (#323 and #324), combining the two tags into one, F-tag #323*. The new guidance took effect on August 6, 2007 and is based on two key principles that every long-term care facility must ensure: the resident environment is as free of accident hazards as possible, and each resident receives adequate supervision and assistive devices to prevent avoidable accidents.

** Federal regulations for long-term care facilities, known as F-tags, were established to set conditions for participation in the Medicare certification and payment system.*

F-Tag 323: Adequate Supervision

According to the F323, “supervision/adequate supervision” refers to an intervention and means of mitigating the risk of an accident. Facilities are obligated to provide adequate supervision to prevent accidents, such as falls. Adequate supervision is defined by the type and frequency of supervision, based on the individual resident’s assessed needs and identified hazards in the resident environment. Adequate supervision may vary from resident to resident and from time to time for the same resident. Tools or items such as personal or fall alarms can help to monitor a resident’s activities, but do not eliminate the need for adequate supervision. Similarly, F323 does not state that fall monitors should not be utilized as an adjunct to proper supervision. Lack of adequate supervision to prevent accidents occurs when the facility has:

- Determined there should be supervision of the resident, and the facility did not provide it; and/or
- Failed to assess a resident to determine whether supervision was necessary, and the resident had an avoidable accident or caused an injury to another resident or there was high potential for an avoidable accident or injury to occur when supervision may have prevented it; and/or
- Should have been aware of the hazards in an area and provided supervision to protect the resident but did not.

Falls

Falls are a major problem for long-term care facilities and represent the leading cause of avoidable accidents (1).

- Up to 75% of residents fall annually; many experience multiple falls.
- Approximately 10% to 20% of falls cause serious injuries requiring medical attention (e.g., sprains, joint dislocations, head trauma, wrist and hip fractures, etc.).

- Falls can result in decreased physical functioning, disability, and reduced quality of life. Loss of confidence and fear of falling, a common complication of falling, can lead to functional decline, depression, feelings of helplessness, and social isolation.
- The majority of falls are due to a number of interacting health and environmental risk factors, which are potentially avoidable (Table 1).

Fall Alarms

Fall alarms (i.e., a sensor pad alarm placed on the bed or chair, under a reclining or sitting resident, or a pull string alarm attached to a resident's garment. When the resident changes position or gets up from a bed or chair, the alarm detects movement and/or absence of weight, which triggers an audible alarm) are designed to serve as an "early warning system"; they alert nursing staff when "at-risk" residents are engaging in activities, such as leaving their bed or chair, which are likely to result in falls.

Fall alarms are not designed to prevent the resident from getting up nor are they designed to prevent the resident from falling. Alarms are tools; they only let staff know that a hazardous 'situation' may be occurring, which can improve the timeliness of staff response to a fall risk situation. In other words, it's not the fall alarm but the response of staff to the alarm (proper supervision) that can potentially prevent falls from occurring.

Fall alarms used in conjunction with supervision serve a variety of useful functions:

- Alarms warn staff that the resident has changed position and is about to leave their bed, chair or wheelchair. This may give staff enough time to assist the resident.
- Alarms warn staff that the resident has shortly left the bed, chair or wheelchair. This may give staff enough time to intercept the resident before a fall
- Alarms promote speedy assistance to residents who have already fallen in order to promptly care for the resident. This can help reduce fall complications, such as the amount of time that a resident lies unaided.
- Alarms may serve as an alternative to nurse call bells in residents who are noncompliant or unable to use their call bell because of cognitive and/or physical impairments.
- Alarms may serve as an assessment or planning tool by monitoring the frequency of resident attempts to leave the bed, chair or wheelchair, which can help identify emerging trends, interventions and supervisory needs.

References

- (1) Tideiksaar R. Falls in older persons, 3rd Edition. Baltimore: Health Professions Press, 2002.
- (2) Tideiksaar R. Guide to Exit Alarms. Baltimore: Health Professions Press, 2006.

Table 1: Fall Risk Factors

Health Factors

- Recent falls (a history of falls is the best predictor of future falls).
- Poor vision (cataracts; macular degeneration; glaucoma)
- Lower extremity dysfunction (arthritis; muscle weakness; impaired sensory function)
- Unsteady gait/balance (stroke; Parkinson's disease, etc.)
- Uses cane/walker (ambulation aids are a marker for underlying gait/balance disorders)
- Elimination problems (excessive night time urination; incontinence)
- Altered cognition (dementia; depression; agitation)
- Fear of falling (leads to over-precaution, fear of walking, and consequently, weakness, poor balance, and increased fall risk)
- Polypharmacy (4 or more prescription drugs)
- Medication side effects (especially drugs that affect central nervous system, such as sedatives and tranquilizers)
- Mobility impairment (bed, toilet, and chair/wheelchair transfers)
- Foot deformities (corns, calluses, bunions can destabilize gait)

Environmental Factors

- Toilets (lack of equipment for support, such as grab bars)
- Furnishings (inappropriate bed/chair heights)
- Floors (loose or thick-pile carpeting, sliding rugs, highly polished or wet ground surfaces)
- Poor lighting (lack of night lights)
- Footwear (ill-fitting shoes, slippery soles)
- Assistive devices (improper and/or broken cane, walker or wheelchair)
- Bed rails (rather than preventing falls, bed rails increase risk for injurious falls)
- Clutter in rooms or hallways.

Clinical Protocol to Prevent Avoidable Falls: Identifying Supervisory Needs and Fall Alarm Use

Step 1: Assess Fall Risk

The purpose of risk assessment is to identify those residents most likely to fall. The rationale for this assessment is that if residents at high fall risk can be determined, then appropriate interventions based on identified risk factors, including supervision and fall alarm needs, can be instituted to minimize the risk of falling.

A fall risk assessment includes both identification of resident or health risk factors and evaluation of environmental conditions contributing to fall risk. Important risk factors include:

- History and patterns of near-falls, recent falls and fall-related injury
- Cognitive impairment and capacity for safe and proper use of adaptive equipment and mobility aids, such as walkers
- Functional status and factors that affect mobility, including muscle tone and strength, transfer ability, balance, stance, gait and ambulatory ability
- Sensory function, including vision, ability to sense position of limbs and joints, and tactile senses
- Medical conditions that may contribute to falls, such as pain, infections, cardiovascular disease, osteoporosis, deconditioning, and nighttime urinary frequency and urgency
- Psychological conditions such as depression and anxiety
- Current medication regimen and use or recent change in medications

Environmental assessment includes:

- Environmental layout and ease of getting around
- Lighting and glare
- Presence of obstructions in both resident rooms and common areas
- Accessibility, visibility and safety of bathroom and dining room
- Sturdiness and visibility of handrails and furniture
- Safety and condition of equipment and fixtures (e.g., bedside commodes, shower chairs, adequacy of brakes on wheel chairs, etc.)
- Appropriate use of personal safety devices, such as canes, walkers or wheelchairs
- Floors with non-slip surfaces
- Fit and use of footwear

Fall risk assessment is critical in the first few weeks after admission because of a resident's potential confusion due to relocation. After a reasonable adjustment period, ongoing assessment addresses the changing risk of falls and needs to be completed whenever residents experience a 'change of condition' and/or fall.

Step 2: Identify Supervision Needs

An effective risk assessment not only identifies health risk factors and environmental hazards that place residents at risk for an avoidable fall, but also a resident's need for supervision. Residents benefiting from supervision include individuals with:

History of Falls

Falling is one of the most reliable predictors of future falls. Residents with recurrent falls may repeat the circumstance or characteristics of their falls, such as leaving their bed and toileting.

Balance or Gait Problems

Residents with problems walking or standing without assistance from a walker or cane requiring staff assistance.

Muscle Weakness

Any weakness or impairment of the legs and/or arms (e.g., from arthritis, muscular weakness, stroke, etc) can inhibit a resident's safe transfers, ambulation and balance.

Bladder Problems

Residents who have bladder problems may get up without assistance to use the bathroom. Residents with nocturia, incontinence and those requiring toileting assistance.

Cognitive Problems

Altered mental status (e.g., confusion, disorientation or impaired memory) is one of the most important risk factors for falling. Cognitive losses can cause errors in judgment (i.e., inability to recognize a difference between safe and hazardous transfers), forgetting to use the nurse call bell or not recognizing the purpose of the call bell (i.e., not making a connection between pushing a button and getting help), and not asking for assistance or not recognizing a need for assistance (i.e., overestimating the ability to transfer and walk safely or denying any mobility limitations).

Mobility Problems

Inability to ambulate and transfer safely and independently. Diseases directly affecting mobility (i.e., strength, flexibility and balance) include acute and chronic conditions that affect the muscular or neurological systems and limit the resident's ability to move about safely.

Adequate supervision, defined by the type and frequency, is based on the individual resident's assessed risk factors and environmental hazards. Types of supervision include:

Resident Safety Rounds

The purpose of 'rounding' is to provide anticipatory care. Rounds are completed every two hours (or more frequently, if needed) to anticipate the resident's toileting needs, hunger, thirst, ambulation, etc. and to meet needs, as appropriate. Relocating the resident's bedroom closer to the nursing station and/or moving the resident near to the nursing station during the day assists nurses in resident rounding.

Sitter Program

The purpose of 'sitters' (e.g., nursing assistants, volunteer companions, etc.) is to observe residents for risky behavior, such as attempting to climb out of bed and other unsafe activities and notify nursing staff of all potential occasions where the resident may fall. Residents with an impaired ability to understand or follow directions, or appreciate the potential for self-harm as a consequence of his/her actions, are suitable candidates for a sitter program. The period of observation may be continuous (24 hours) or instituted only during those times of when the resident is at highest risk of falling, such as during change of nursing shifts.

Eyes and Ears Program

The purpose of this supervision or monitoring program (sometimes referred to as a "falling leaf" or "falling star" program) is to increase staff awareness of residents at high risk for falls. The more eyes available to observe "at-risk" residents at high risk (e.g., observing warning signs such as unsteady balance or a change in condition such as agitation, confusion, weakness or tiredness, needing help with daily activities, etc.) and the more ears available to listen to high-risk patients (e.g., complaints of dizziness, weakness, unsteady balance, etc.), the better it is. Any changes noted can often serve as an early warning system to nursing staff (i.e., to evaluate for an underlying cause, disease/drug reaction) and help to prevent falls. Residents most likely to benefit from a program include frequent fallers, frequent wanderers "at-risk", and individuals with dementia and gait/balance impairments.

Step 3: Identify Fall Alarm Need

Fall alarms can help monitor residents at fall risk (i.e., fall alarms used in conjunction with other strategies, such as providing anticipatory care, scheduled toileting, etc. have the greatest likelihood of preventing falls) and are best used as a 'safety mechanism' to support supervision needs (i.e., even with continual supervision and hourly rounding or safety checks, a resident may fall).

Fall alarms are particularly useful for the following types of residents at fall risk:

- Resident has mobility impairment (gait/balance and transfer impairment)
- Resident has mental status impairment (lack of judgment/safety awareness; forgets to use call bell or ask for assistance, can't remember or follow instructions)
- Resident has a history of nocturia (i.e., excessive nighttime urination).
- Resident has impaired mobility/ demonstrates unsafe bed, chair, wheelchair or toilet transfers.
- Resident experiences fall(s) from bed, chair, wheelchair or toilet.
- Resident experiences fall(s) shortly after leaving bed, chair, wheelchair, toilet or is found on floor after an unwitnessed fall.
- Newly admitted residents, especially with dementia require close monitoring. The first 24–48 hours after an admission to a new setting are critically important because staff and surroundings are unfamiliar to the resident. Other high fall risk situations include floor-to-floor transfers, post fall and change of condition and/or starting fall risk medication

Fall alarms can also serve as an assessment or care planning tool by monitoring the frequency of attempts to leave the bed, chair or wheelchair, which can help identify emerging trends/habits and supervision interventions. For example, a resident may consistently attempt to arise at a certain hour to go to the bathroom, while another resident may get up at nonspecific times, driven by an urge to wander. As a result of such a "history," staff can adjust their attention and care to each resident's habits and needs.

When considering a fall alarm, further resident assessment may be helpful before a fall alarm is actually used. The assessment helps staff to select those residents who 'might' benefit from a fall alarm, and consists of:

- Conducting a mobility assessment. Observe a resident's ability to transfer safely from bed/chair and ambulate: Any observed impairment in mobility is a strong predictor of fall risk (i.e., resident has difficulty getting up from bed/chair and/or ambulation, and lacks strength/ balance and requires a support person for assistance). If a mobility problem is found to exist, the resident is a suitable candidate for a fall alarm.

Step 4: Monitoring

Because fall risk is a dynamic process, often subject to change, monitoring residents and their supervision and fall alarm needs should occur on a regular basis. As well, monitoring is the process through which the effectiveness of the supervision and fall alarm intervention is evaluated. If the interventions are not effective or not working to reduce fall risk, modification of the interventions and care plan should occur.

Summary

Fall alarms play a vital role in today's long term care environment of shrinking finances, staffing shortages, high turnover, increasing workloads, and growing acuity levels, and can help reduce fall risk when used in conjunction with adequate resident supervision.