

Chapter 2

Improving Fall Risk Assessment

Patients, most likely, will not tell a health care organization if they are at risk for a fall. In fact, many patients do not look as if they are at risk either. For this reason, health care providers need to depend on fall risk assessments to help identify at-risk patients. Such tools are the foundation of successful falls prevention programs, activities, or other initiatives.

Simply put, fall risk assessments are essential tools that are used to identify patients or residents who might be at risk of falling. These tools can help to identify which patients might be in need of intervention and could help to reduce the number of overall falls in the facility or organization. The Joint Commission mandates that patients be assessed for fall risk and be reassessed periodically.

Of course, the main purpose of assessment tools is to identify the patients or residents who are a high fall risk and then institute appropriate interventions. Assessment tools can also assist in targeting the urgency and types of interventions required. And, finally, assessment tools also play a role in raising staff awareness regarding patient/resident falls. If a patient has not been properly assessed for fall risk, for example, the individual might not bring up the fact that they have fallen four times in the past month at home. Or, the patient might neglect to point out that his or her new medications are causing incontinence, requiring frequent trips to the bathroom. When proper assessment tools are used, this information is drawn out of patients—and the proper interventions can be implemented.

Patient fall risk assessments generally have a significant impact on the success or failure of fall reduction programs or other initiatives. As a result, health care leaders should strive to choose effective assessment tools for their organization or facility.

The Assessment Basics

What, then, constitutes an effective fall risk assessment? First, to be effective, an assessment must be sensitive, so that it correctly identifies high-risk patients, and specific, so that it correctly identifies patients not at risk. Health care organizations can find meaningful assessment information in initial evaluations and ongoing evaluations.

Initial Evaluations

Baseline fall risk assessments should be completed upon admission or within two hours of admission. Such evaluations help clinical staff members determine what types of interventions need to be delivered in order to reduce the likelihood of a fall. It's important that all organizations conduct an initial evaluation on all patients or residents. These evaluations often uncover information that can help staff members mitigate patient fall risk. Older patients—and others who exhibit more risk factors—should then be evaluated more in-depth to uncover any potential risk factors.

Ongoing Evaluations

Change is a constant in healthcare. As a result, initial evaluations are just the beginning. Ongoing evaluations can help health care staff members stay on top of changing levels of fall risk for individual patients. Since the condition of patients is subject to change after admission in a health care organization, patients are also subject to changes in their fall risk classifications. For this reason, reassessment of fall risk needs to be an ongoing process and should be completed whenever there is any of the following:

- **Change in a patient's condition.** Whenever there is a change in a patient's condition, the change could potentially affect fall risk. For instance, if a patient starts to become weak, the individual is more likely to fall. If a patient begins to experience vertigo, of course, the individual is then at a significant increased risk for falling. Such patient conditions should be continually assessed to determine accurate fall risk.
- **Addition or change in medication.** Staff members should keep a close eye on medications to determine if any individual medication or combinations of medications could put patients at an increased fall risk. Some organizations ask pharmacists to evaluate patient medications for fall risk factors. As such, pharmacists can suggest alternatives to doctors—or, at the very least, point out that specific medication will bring about increased fall risk. Such information can help doctors weigh the benefits of the medication against any potential risks.
- **Each day or with each shift change for some high-risk patients.** High-risk patients can change significantly from day to day. As such, patient fall risk changes considerably. By evaluating the risk daily or at each shift change, staff members can stay on top of variations of fall risk and implement specific and timely interventions. In addition, frequent evaluations help keep patient fall risk as an issue at the forefront for staff members.
- **Immediately following a fall.** It is especially important to perform a follow-up evaluation after a fall. The purpose of the post-fall assessment is to identify the circumstances of the fall, identify the presence of new risk factors, and plan appropriate interventions to prevent further falls. These assessments are beneficial in detecting risk factors and in implementing effective follow-up interventions.¹

Sidebar 2-1

Eight Issues to Watch to Help Patients Avoid Falls

- **Medications:** Watch residents on new or as-needed medication to look for side effects that may lead to falls. Provide walking escorts as necessary.
- **Poor vision:** Keep areas where residents walk well lit. Staff should identify and monitor those residents/patients who need to wear glasses. Residents/patients with poor vision should not walk alone.
- **Sudden mental status changes:** Pay attention to subtle changes in resident behavior.
- **Untied shoes/improper shoe fit:** Caregivers check throughout shifts for those residents/patients whose shoes are not tied or do not fit properly.
- **Spills on the floor:** Check for spills often and immediately wipe up any spills that occur.
- **Too much furniture:** Rearrange furniture so that walking areas are not blocked.
- **Uneven terrain:** Monitor residents/patients when walking on uneven sidewalks and prevent residents/patients from walking on such surfaces.
- **Poor hydration:** Make sure residents/patients are offered water and juice every two hours.

Source: Joint Commission on Accreditation of Healthcare Organizations: *Meeting The Joint Commission's 2007 National Patient Safety Goals*. Oakbrook Terrace, IL: Joint Commission Resources, 2006.

Fall Initiatives Require a Team Approach

Some health care organizations are too small or have budgets too limited to dedicate a team of staff members to a fall prevention initiative. Those organizations must work within their resources, which might mean one or two staff members analyzing fall risk assessment tools or designing a fall prevention initiative while juggling other assignments.

Other health care organizations that have the staff and resources necessary should use the team approach to addressing patient falls. Although some health care professionals, like nurses or nurse's aides, are on the front lines and routinely deal with patients and the issue of patient falls, all staff members should become involved to make a difference. A simple awareness of patient falls, for example, could make the environmental services staff member more diligent in putting up "Wet Floor" signs or could prompt the unit secretary or a clerical staff to notice a struggling patient and call for

immediate help. It is important that support staff members are trained to assist a care recipient in distress for situations like this.

Taking a team approach to patient fall reduction, therefore, is often the most efficient way to reduce falls. With a large or small team in place, a health care organization can get a more accurate and comprehensive evaluation of fall risk. Perhaps even more important, a team typically can come up with more effective interventions because members bring a variety of perspectives to the issue.

There are many advantages associated with working in a team, including the following:

- Teams tend to be more successful in implementing complex plans.
- Teams develop more creative solutions to difficult problems.
- Teams build commitment and support for new ideas among staff members.
- Teams become part of the learning process.

When thinking of ways to prevent patient falls, nurses typically come to mind because nurses are the staff members who have the most interaction with patients in hospitals and in home care programs. At a long term care facility, nurses and nurse's aides have the most interaction with residents. For this reason, it is critical to involve those staff members who are most directly responsible for patient safety issues. Although nurses or administrators often lead and participate on patient fall prevention teams, it is important to involve all staff members. Successful teams should draw from many departments and job descriptions. Clinical and nonclinical staff members can bring unique perspectives or skills to the group when assessing fall data. The following lists illustrate how various members of a health care organization can become involved in falls reduction by including examples of possible responsibilities. Although not all of these positions exist at all health care organizations, this list can be a resource for organizations when they develop their own large or small team.

Potential Clinical Staff Members of the Team

Medical Director

- Ensures that falls and fall-related injury prevention is a high priority at the facility
- Promotes fall risk prevention across the facility
- Ensures adequate funding for fall risk prevention activities

Associate Chief Nursing Service/Chief Nurse Executive

- Establishes population-based fall risk levels/units/programs
- Deploys evidence-based standards of practice
- Oversees the policy within the hospital

Admissions Nurses

- Complete the fall risk assessment at admission
- Notify the unit of any patient assessed as high risk
- Follow any procedure for high-fall risk admissions

Falls Clinical Nurse Specialist

- Facilitates team meetings
- Ensures fall prevention measures are being used
- Elicits comments from staff regarding the program and other fall-related activities

Nurse Managers and Registered Nurses

- Ensure that interventions become the standard of care for high-risk patients
- Enforce interventions taken by the interdisciplinary teams

Nursing Assistants and Licensed Practical Nurses

- Educate peers on fall prevention interventions
- Act as fall prevention advocates
- Collect data for aggregate fall program reviews

Pharmacists

- Review medication of all high-risk patients when they are identified and following a fall
- Identify fall risk issues with medications
- Notify physicians that medications need to be adjusted

Occupational or Physical Therapists

- Provide balance and strength assessment for high-risk patients
- Assess the ability of a patient to use specific interventions, taking into account grip strength and other factors

Audiologists and Optometrists

- Perform assessments on patient's vision and hearing to reduce the risk of falls

Physician/Nurse Practitioners

- Analyze patients' medical histories
- Identify fall risks based on medical history

Potential Nonclinical Staff Members of the Team

Patient Safety Management/Quality Management Coordinator

- Facilitates team activities
- Acts as liaison between the team and the management of the facility
- Provides data to the team to help determine the impact of the interventions taken

Facility Manager

- Ensures that the environment of care is set up to reduce falls

- Trains the janitorial staff to perform an environmental assessment to remove clutter from rooms and ensure that spills are cleaned up properly
- Identifies fall hazards related to cleaning supplies, such as a particular cleaning agent causing the floor to become slippery
- Assesses the environment in common rooms to ensure that furniture is safe for people who are at high risk for falls

Purchasing Manager

- Purchases items that reduce the risk of falls and fall-related injuries
- Ensures that the supply is adequate and that the correct products are purchased

Biotechnology Manager

- Ensures that all devices used are in working order to prevent patient from falling
- Reassesses devices that were involved in falls, such as wheelchairs or walkers

Education Staff Members

- Develop an education program about fall prevention for all levels of staff
- Develop competencies for nursing staff about the falls prevention program²

Choosing Risk Assessment Tools

Once you have a team of professionals formed, an important part of its job is going to be choosing fall risk assessment tools that the organization can use to gather patient information related to falls upon admission and on an ongoing basis when needed.

The Joint Commission mandates that patients be assessed for fall risk and re-assessed periodically. To prevent falls and meet this requirement, health care organizations typically turn to some type of assessment tool. These tools help staff members objectively determine how likely a patient is to fall and what can be done to prevent such events. Choosing the right assessment tool—or combination of assessment tools—can make or break the success of a falls prevention program or activity. The chosen tools need to help provide relevant assessments of the patient population, considering any pertinent factors that can have an impact on fall risk. Plus, health care leaders also need to use tools that assess environmental factors that are applicable to specific facilities. Perhaps most important, however, is the fact that organizations need to choose assessment tools that staff members can easily use with other daily tasks. If staff members deem the tools too difficult to handle, they may not conduct assessments in a regularly scheduled manner or as thoroughly as needed.

Risk assessment tools fall into three categories: nursing fall risk assessments, functional assessments, and complete medical assessments.

Nursing Fall Risk Assessments

Nursing fall risk assessments typically provide a scale that predicts the likelihood of a patient fall. These tools are typically used in initial evaluations. Nursing assessments are important tools that can help to identify a number of intrinsic fall risk factors. In addition, nursing assessments help get staff members focused on providing the appropriate interventions for individuals. Nursing assessments specifically aim to prevent falls by

- Identifying patients with fall risks
- Separating those patients who may or may not fall
- Minimizing risk factors
- Implementing strategies targeted to those most likely to fall
- Targeting fall prevention resources appropriately

Variables in these tools can include the following:

- History of falling
- Secondary diagnosis
- Need for ambulatory aids
- Current IV therapy
- Gait
- Mental status

These scales typically are quick, easy-to-use tools designed to be used by nurses as part of their normal workday.

The following are examples of nursing fall risk assessment tools:

- The STRATIFY Risk Assessment Tool identifies a patient's or resident's risk for falling based on the following indicators: previous falls, agitation, impaired vision, frequent toileting, and Barthel Score for transfer and mobility.³
- Reassessment is Safe Kare uses four indicators to assess for fall risk.
- Morse Fall Scale measures risk by evaluating a patient's history of falling, secondary diagnosis, use of ambulatory aids, intravenous therapy/heparin lock, gait, mental status, and orientation to own ability.
- Hendrich Fall Risk Assessment assesses fall risk via recently history of fall, altered elimination, confusion/disorientation, dizziness/vertigo, poor mobility/generalized weakness, and poor judgment.

Functional Assessments

Functional assessments measure a patient's or resident's ability to manage daily routines. A functional assessment can help to determine if a person has the ability to handle activities of daily living such as the following:

- Transferring—a patient's ability to move from one location, such as a chair, to another, such as a bed
- Ambulating—a patient's ability to walk from one location in a particular area to another, such as from the bed to the washroom
- Bathing—a patient's ability to get into and out of the bathtub without assistance

The purpose of a functional assessment is to indicate presence and severity of disease, measure a person's need for care, monitor change over time, and maintain an optimally cost-effective clinical operation. Functional assessments can evaluate the following:

- Lower extremity weakness
- Gait abnormalities
- Balance abnormalities (for specific balance tests, see the modified Romberg test and the Functional Reach test)
- Appropriateness of assistive devices (e.g., walkers, canes, wheelchairs)
- Need for personal assistance
- The presence of restraints
- Environmental modifications

Comprehensive Medical Assessments

Comprehensive medical assessments are used to predict falls in an older adult, especially if recurrent, because falls may be a key signal of unmet medical needs and should accordingly trigger an in-depth diagnostic process and clinical intervention by an appropriately skilled physician. Typically, these assessments are used with patients who have already been identified as high-risk patients. The purpose of these assessments is to get an in-depth analysis of patient functioning, which makes it possible to create effective targeted fall prevention measures.

Although well-designed controlled studies specifying this approach as part of a multifactorial intervention are comparatively few, recent published trials have confirmed the anticipated substantial returns in fall prevention achieved for community-dwelling patients with a history of falling.⁴

Environmental Assessments

Proper maintenance of a facility's environment is essential to a fall risk reduction program. In addition to assessing patients, health care organizations also need to evaluate environmental risk factors. An initial falls risk survey—including records review and site and staff surveys—should be conducted in acute care and long term care settings to identify those environmental factors that increase the risk of falling. An engineering inspection list can be used to identify hazards that increase the risk of falls.

Records reviews should also be included in an environmental review. Sources of information that should be included are patient records, meeting minutes, Joint Commission survey reports, Occupational Safety and Health Administration inspection reports, insurance company inspection reports, existing policies, internal audits, performance improvement reports to administration, event reports, Workers Compensation records, and injury and illness logs. By reviewing these records, health care staff can assess data for trends that reflect the efficacy of current falls reduction efforts.

Site surveys are used to identify actual environmental fall hazards such as slippery floors, spills, wet areas without signs, floors with wax buildup, cluttered areas, poor lighting, broken handrails, changes in floor grading, and the walking (or running) habits of staff, visitors and patients.

Once an initial survey of environmental risks for patients, residents, visitors, and workers is complete, the facility manager can work with falls prevention team members to identify interventions to reduce environmental risk factors. Common interventions include high-traction flooring and slip-resistant footwear, good lighting, assistive devices, appropriate architectural design, and proper equipment and environmental maintenance.

Fall Risk Factors as Assessment Tools

Although health care organizations are apt to use various assessment tools, there are assessment elements that are commonly used no matter the type or size of the organization. These common elements include a patient's demographic and history, a patient's diagnosis and condition, a patient's medications, and environmental factors. These are most often used because staff members can easily assess such information, and the data provide a comprehensive overall picture of initial falls risk.

A patient's demographic and history involves such details as age, sex, history of previous falls, fear of falling, and length of stay in the health care facility. These details

are important because they provide insight into the patient's current health and physical functioning. In addition, the past history data can help staff members get a handle on any potential patient-specific falling trends.

A patient's diagnosis and condition involve such details as problems with mobility/gait, lower-extremity strength, history of fractures, visual and auditory impairments, dizziness, dehydration, depression, stroke, transient ischemic attacks, and cardiac arrhythmias.

It's also important to know if a patient has been prescribed certain medications, such as diuretics, analgesics, hypnotics/tranquilizers, laxatives/cathartics, and polypharmacy (multiple medications).

Staff Communication

Fall risk assessment is valuable in and of itself, but its value multiplies as the assessment is communicated across the organization. Successful fall risk prevention initiatives make sure that fall risk is communicated to all staff members, from the interdisciplinary prevention team to the hands-on caregivers.

In addition, fall risk should be communicated to the entire care team regardless of where the patient is within the hospital or where a resident is in a long term care facility. One method organizations can consider using involves visual cues (armbands, stickers, colored socks) to communicate fall risk. However, it is important to make sure that all staff members are aware of the meaning of such clues. For example, if a patient is transferred to radiology, the staff members in that department should be aware of the fall risk clues. Some organizations also improve communication about individual fall risk by posting signs on room doors or having care recipients wear certain wristbands, indicating that the individual is at increased fall risk. Newsletters and bulletin board postings can also be used to keep staff members apprised of overall fall reduction initiatives, and, in the process, can increase awareness and effectiveness. Successful organizations make sure that patient needs and access to patient information is not hindered by the patient's location. In many cases, fallers have been negatively impacted by the failure to communicate risk among members of the care team.⁵

Mandatory Fall Reporting

Communication needs to extend beyond fall risk assessment to include reporting on actual falls. Indeed, healthcare organizations must report all falls if they expect to make improvements in fall prevention. All staff members should be made aware of their responsibility to report patient falls. A designated staff member should collect all patient fall information.

Reliable fall data that include fall indexes and injury rates by unit and organization are necessary to support a successful fall prevention program. In addition, event-reporting systems can increase the amount of data that can be collected. However, there is an important caveat. Although event-reporting systems can be helpful, the use of such systems can result in organizations that are “data rich but information poor.” This happens when staff members spend large amounts of time poring over data while eliciting very little useful information. Therefore, health care organizations should seek to collect data that answer four basic questions:

- Who fell?
- When did the person fall?
- Where did the person fall?
- Why did the person fall?

If the data are to be meaningful, attention must be paid to how the data are categorized and entered into the system. Good data enable continuous *plan, do, check, and act* cycles of small improvements in the falls prevention program.⁶

Selecting the Right Fall Risk Assessment Tool

Health care organizations can choose from a variety of fall risk assessment tools. No single tool, however, can be recommended for all organizations, populations, or situations. Some tools might be more effective for specific populations or in specific environments, and organizational leaders need to take the time to determine which tools will work best in their milieu. For example, fall risk assessment in a pediatric care environment might stress environmental factors, whereas fall risk assessment in a geriatric environment might look at health and physical functioning, thereby utilizing a comprehensive medical assessment. Staff needs also should be considered. If overworked nurses are required to complete a long assessment tool, some might skip the step entirely. As a result, the assessment tool should be easy to implement.

Although an organization can use homegrown risk assessments, leaders need to make sure these tools are truly useful. Many organizations continue to use homegrown lists of risk factors that have little scientific basis for the assessment. However, an exhaustive list that is not research based may designate every patient as high risk for falling.

Many of these lists have not been compared and statistically adjusted for suspected risk factors. For example, many tools continue to use age as a discrete risk factor when age alone does not predict fall potential for an individual. There are just as many 70-year-olds who play golf and swim each day as those who fall. Age appears to be a risk factor because it is often correlated with the true risk factor of ineffective gait and mobility.⁶

To determine which tool is most appropriate, health care organization leaders should consider the following:

- **Validity and reliability**
 - Does the tool provide strong predictive validity among the population of interest?
 - Does the tool result in consistent findings across repeated prospective tests?
- **Appropriateness for target population**
 - Is the tool affordable and easy to use?
 - Does the tool include clear instructions?
 - Does the tool include training requirements?
 - Does the tool include equipment needs?
 - Are recommended cutoff scores included?^{7,8}

Sometimes, health care organizations compare tools against one another. Here is a sample comparison between the Hendrich Fall Risk Assessment and the Morse Fall Scale.

The major advantages of the Hendrich Fall Risk Assessment are as follows:

1. It is research driven.
2. Interventions are standardized by level of risk.

The major disadvantage is that the tool is only designed for the acute care setting and is therefore difficult to apply in other environments such as long term care facilities.

The main advantages of the Morse Fall Scale are as follows:

1. It focuses interventions on specific areas of risk rather than on general risk score.
2. It is easy to determine if someone is high risk because nearly every risk factor categorizes a patient as high risk.
3. There are only two categories of patients: high risk and low risk.

The main disadvantages of this assessment are as follows:

1. It is not as researched as the Morse Fall Risk Assessment.
2. Nearly every patient will be put into the high-risk category.

Some of the factors are the same between the Morse and Hendrich assessment. Both are good assessments depending on how you structure your program.

1. Use the Morse Fall Risk Assessment if interventions are based on level of risk.
2. Use the Hendrich Fall Risk Assessment if the interventions are based on area of risk.⁹

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