

## Current Best Practices for Falls Prevention:

### Knowledge:

1. Training staff on the importance of preventing falls and proper procedure when dealing with senior adults who are at risk of falls
  - a. According to a study, all employees in the cohort identified falls to be a “very urgent” or “somewhat urgent” health issue. However, only a third felt “very knowledgeable” about fall prevention practices. (Laing et al., 2011).

### Practices:

1. Despite the fact that all employees acknowledged falls as an urgent health issue, most claimed they do not provide fall prevention practices on a regular basis.

**Table 2**

Attitudes and provision of fall prevention services among community-based, senior-serving organizations, *n* = 50.

Fall prevention practice	Practice perceived as very important	Provision of service on a regular basis*	Provision of service sometimes*	Referral to outside organization(s) to provide service*
		%		
Individual assessment of risk	74	16	36	26
Strength and balance training	94	38	28	24
Home assessment and safety improvement	76	14	34	40
Review and management of medications	84	10	22	44
Training and use of assistive devices	68	8	26	42
Fall prevention education	74	38	30	20

2. Employees claimed that the main barrier to providing fall prevention services was insufficient resources. 66% claimed they lacked the funds, 28% claimed they lacked trained personnel, 24% claimed that fall prevention was a lower organizational priority, and 22% claimed that there wasn't enough awareness of the importance of fall prevention. Only 16% of senior respondents reported that they received individual risk assessments even though half of them had fallen (Laing et al., 2011).
  - a. In order to improve fall prevention practices, these barriers should be alleviated to a certain extent. Regular staff training on fall prevention practices and their importance for the health of senior adults is strongly recommended. Also, it is important to disseminate fall prevention evidence to clinicians to encourage them to adopt fall prevention practices that can reduce fall-related injuries and future healthcare use for the treatment of these injuries. According to the American Geriatrics Society Clinical Practice Guidelines, health providers should “conduct risk assessment not only for individuals reporting a fall but also for those demonstrating difficulty with gait or unreadiness.”

**Attitude:**

1. Many senior adults do not perceive falls as a serious threat to their health. According to a study, over one-third of elders reported falls to be one of their least important health concerns despite one-half of older adults experiencing a recent fall (Laing et al., 2011). Another study found that fewer than 10% of older adults rated avoiding the risk of fall injury as highly important (Tinetti et al., 2008). They identified “not feeling at enough risk for falling” as their primary barrier to participating in fall prevention practices. Additionally, they reported feeling motivated only when “something happened to

increase their perception of risk or if they experience falls frequently” (Laing et al., 2011). This may be an indication that elders are not educated enough by clinicians on the importance of fall prevention and the serious health consequences of suffering a bad fall. Exposing senior adults to fall prevention initiatives increases the likelihood of them understanding that falls are preventable and including fall prevention in their personal priorities. If senior adults do not recognize their self-risk with falls, they are less likely to talk to their physicians about how to reduce instances of falls.

2. Older adults who perceived fall prevention as important to their health were significantly more likely to participate in practices that had the lowest level of unaided awareness. (Unaided awareness: interviewers asked elders to verbally generate a list of potential activities to prevent a fall). These practices include individual risk assessment and medication management. Therefore, increasing awareness of the importance of fall prevention is crucial to increasing the uptake of fall prevention practices.

### **Primary Fall Prevention Practices:**

1. Individual Assessment of Risk:
  - a. Fall risk assessments check to see how likely it is that an individual would fall. The first part of the assessment includes an initial screening which includes a series of questions regarding overall health and fall history. The second part includes a set of tasks that are used as assessment tools that test an individual's strength, balance, and gait. Some of these tasks include the timed up-and-go test, the 30-second chair stand test, and the 4-stage balance test.

## 2. Review and Management of Medications

- a. The consumption of 4 or more medications is defined as polypharmacy. Research shows that the average senior adult consumes four or more prescription drugs daily. Many researchers associate polypharmacy with a higher risk of falls. However, recent studies suggest that polypharmacy only poses a risk if it includes fall-risk-increasing medications (Richardson et al., 2014). Certain medication classes such as benzodiazepines, antidepressants, antipsychotics, antihypertensives, and diuretics have been consistently associated with increased fall risks (Richardson et al., 2014). Therefore, risks and benefits need to be carefully considered when prescribing these types of medications to senior adults who are at risk of falls. Subsequently, the removal of certain prescriptions should be carefully considered when a senior adult presents to the ED for falling.

## 3. Training and Use of Assistive devices

- a. Assistive devices, when used properly, make mobility and activities of daily living much easier and safer for senior adults. These devices include walkers, canes, wheelchairs, commodes, dressing equipment, and mechanical transfer devices. However, research has shown that assistive device users were more likely than non-users to report falling (West et al., 2019). It is important for assistive device users to avoid solely relying on assistive devices for mobility since it is imperative that they exercise to improve their strength and balance. The combined use of assistive devices and regular strength and balance training is strongly recommended as one could improve mobility with training and prevent falls with assistive devices when traveling.

**In a clinical setting:**

1. First, universal fall precautions should be in place, as they constitute the basics of patient safety. They should be performed from both the standpoint of the patient and the physical environment. Hourly rounding along with a set of items to review when rounding the patient is a good basic strategy, while also being proactive in the patients' care (Ganz DA et al., 2013). The set of items are called the "4 P's" or "5 P's" and usually consists of the following:

- Pain
- Personal needs
- Position
- Placement
- Prevent falls

Extrinsic risk factors, or factors not caused or part of a patient's condition, are usually related to proper safety measures not being put in place. Extrinsic risk factors include lack of stair handrails, poor stair design, lack of support bars in bathrooms, dim lighting, obstacles in hallways and rooms, slippery or uneven surfaces, and improper use of assistive devices. From the physical environment standpoint, regular environmental inspections should take place with both nursing staff and facility engineers. There should also be a hazard reporting form available for staff to report items that need immediate attention. The last universal fall precaution is safe patient handling, which mainly applies to patients who require assistance with transfers.

2. There was high agreement across clinical practice guidelines with strong recommendations for risk stratification, the use of specific tests for gait and balance assessments, multifactorial interventions, medication review, physical exercise, vision

and footwear intervention, physiotherapy referral, environment modification, management of osteoporosis and fracture risk, and cardiovascular interventions.

3. In terms of patient and physician education, research has shown that falls in hospitals can be best prevented with a combination of evidence-based patient education and health professional education about falls prevention. Meanwhile, significant falls reduction did not occur with bed or chair alarms, or sensors being put in place.

### **After discharge:**

The six best practice themes for discharge planning include:

- Early discharge planning
- Patient and care support engagement and education
- Established follow-up
- Consistent and timely communication of pertinent medical information
- Standardized discharge planning (Lewis, 2022).

### **STEADI Initiative:**

The STEADI initiative provides tools to screen older adults for fall risk, assess fall risk factors, and intervene to reduce fall risk. Combining the components of STEADI with early mobilization of older adults in an inpatient setting may reduce the risk of falls in hospitalized older adults during and after their hospital stay. It also provides a 10-step program to create a hospital-based STEADI safe mobility and fall prevention program (Rogers et al., 2021) The program consists of three main components: screening, assessment, and intervention.

#### **a. Screen:**

Screening is when patients at risk of experiencing a fall are identified. The screening step has three recommended tools, one of which utilizes the CDC's

“Stay Independent” checklist, which is a self-assessment screening for fall risk factors. The second recommended tool consists of three key questions:

1. Have you fallen in the past year?
2. Do you feel unsteady when standing or walking?
3. Are you worried about falling?

The third recommended tool is the AHRQ’s STRATIFY Risk Assessment Tool, which identifies fall risk factors in hospitalized patients.

**b. Assess:**

Assessing is when modifiable risk factors are identified. There are multiple fall risk factor assessments that can be performed. Things that should be assessed for are:

1. Gait disorders, using gait, strength, and balance tests
2. Medications, to identify those that increase fall risk
3. Orthostatic blood pressure
4. Feet and footwear for shoe fit, traction, supportive insoles, and heel height
5. Vitamin D intake
6. Comorbidities that increase fall risk, such as cognitive impairment, Parkinson’s disease, cardiac issues

**c. Intervene:**

Intervention is when clinical and community strategies are used in order to reduce fall risk. There are steps that can be taken both during hospitalization and during the discharge of the patient.

During hospitalization:

- a. Refer to PT for gait and balance training

- b. Optimize medications to eliminate or reduce those that may increase fall risk
- c. Assess chronic conditions such as cognitive or neurological disorders, cardiovascular disorders, or musculoskeletal conditions
- d. Talk to older patients and their caregivers about fall risk, and work with them to develop a personal fall prevention care plan that they want to follow

During discharge:

- a. Refer to community fall prevention programs for gait and balance exercises
- b. Refer to occupational therapy for home safety assessments
- c. Include recommendations in the patient's discharge summary for the PCP to refer to specialists
- d. Ensure patients have follow-up care plans in the discharge summary and share it with the PCP

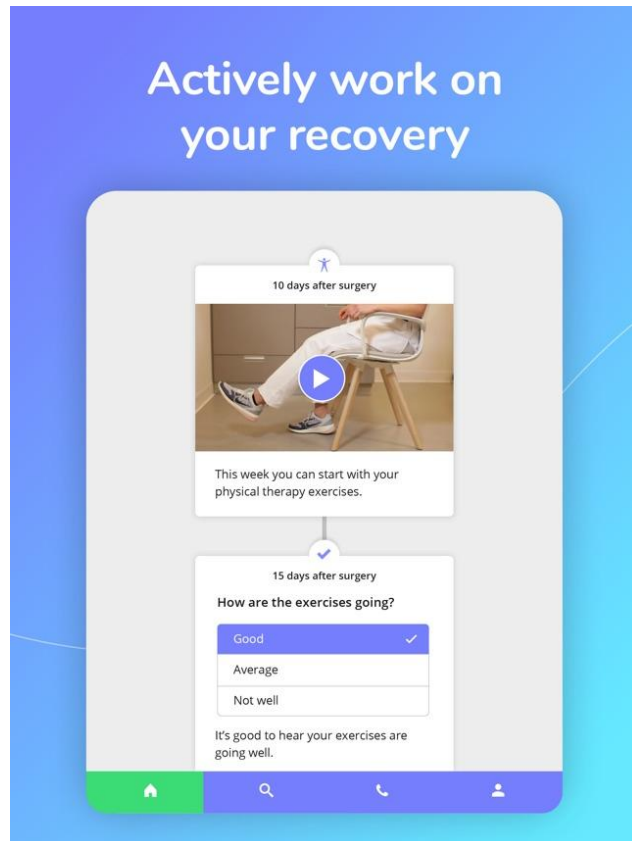


## Recommended Patient Tracking Software for Fall Prevention:

### Patient Journey App

<https://patientjourneyapp.com/monitor>

Involve your patients in their own treatment pathway by sharing their progress via the app. Make patients aware of the actual effect of the treatment by sharing their weekly pain scores, ability to perform exercises, or limitations in daily life due to medication side effects. Then use this data as a basis for shared decision-making at the patient's next appointment.



### Tellescope

<https://www.tellescope.com/about/use-cases/care-management>

#### Care Journeys

- Define custom care pathways for your patient population
- **Track patient progress and understand their current state**
- Ensure that patients are being adherent to their care plan
- Leverage analytics to understand improved patient outcomes
- **Collect patient intake information and track progress using surveys**
- Customize to match your company's branding

- Create automated actions, like tasks for your team or outbound patient communication, based on patient updates over time

## BlueJay Mobile Health

<https://www.bluejayhealth.com/products/Engage>

- Secure HIPAA-compliant interface that ensures the privacy of all records
- AI-Powered Patient Assessment tool to monitor patients' progress
- Home Exercise Programs and therapies delivered digitally
- Video Visits with excellent video and audio quality
- Assess and measure Range of Motion with an AI-powered tool during Telehealth meetings
- Easy record-keeping of ROM measurements saved in PDF file format or video files
- **Assess improvement in mobility by tracking progress in patient's movements**
- S.O.A.P notes marked down during meetings can be stored in any EMR platform
- Generate customized therapeutic exercise programs comprised of easy-to-follow instructional videos
- Browse through and prescribe from over 4,000 exercise videos and hundreds of program templates
- Patient adherence to the prescribed exercises is automatically recorded
- **Friendly reminders and self-reported surveys to keep the patients engaged and on track with their treatment**
- More than 150,000 cases have been analyzed to create an algorithm that can provide the most optimal treatment plan for each case
- **Helps to track the progress and outcomes of the patients and record optimal evidence-based practices**
- The system can be adapted to each organization's own best practices using its data

The screenshot displays the BlueJay Engage mobile health interface. The top navigation bar includes the BlueJay Engage logo and a user profile for "BlueJay Therapist". The left sidebar contains navigation options: My Patients, Manage Region & SNF, Messages, Patient Call Request, Event Schedule, Favorites, Library & Document, My Account, Performance, Help, and Logout. The main content area shows the patient profile for "Kris Park (M/30Y)" with a "Live Chat" button and a "Following" status. Below this, the "Active Dx" section lists "Dx (M46.46)" with an "Add new code" button. The "History Dx" section lists several previous diagnoses. The "Dx (M46.46 - Lumbar Discitis)" section provides a detailed view of the current diagnosis, including the diagnosis code, start date, MMI date, and case resolution. It also shows target visits to resolution and a visit note. A "Phases of Care (Current-Phase 1)" chart displays the patient's progress over time, with a target wellness of 3.30% and achieved wellness of 0%. The chart includes a legend for Pain Level (0-10) and Functional Loss (0-10). The right sidebar shows "Patient Progress (Day 0, Phase 1)" with a target wellness of 3.30% and achieved wellness of 0%. It also lists recommended exercise programs and physical therapy sessions.

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