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A Review of Fall Risk Interventions, Implementation Strategies, Measures and Recommended Outcomes: A Literature Review and Project Recommendations

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Background: Patient falls commonly occur while hospitalized or after the transition of care. This quality improvement project examines how the implementation of a fall prevention tool before discharge can aid in fall prevention after the transition of care.

Objectives: To produce a policy recommendation that can reduce falls and fall-related injuries in adults over 65 years of age through the development and dissemination of education and training.

Supporting Literature: Though there are numerous fall risk assessments available, few are to help providers assess patients prior to discharging home. The STEADI tool proves to be the most promising to help prevent falls in an outpatient setting due to the interventions associated with the differing fall risk levels.

Methods: A literature review was conducted reviewing fall prevention throughout the transition of care of older adults from an acute care setting to home. A policy was created based on research conducted and reviewed by three expert evaluators.

Results: A qualitative review of the proposed policy was completed by three expert evaluators and provided support indicating that the policy recommendation that addresses a needed gap in healthcare and may improve health outcomes.

Conclusion: Through implementation of a policy using the STEADI toolkit, agencies can equip their healthcare providers with the tools needed to provide safe transitions for their patients as they transition out of the hospital setting. The policy recommendation presented here was evaluated as valid and would be appropriate for acute care agencies with patient populations 65 years and older.

Keywords: Transition of care, fall risk tool, falls after discharge, fall risk provider education, STEADI.

A Review of Fall Risk Interventions, Implementation Strategies, Measures and Recommended Outcomes: A Literature Review and Project Recommendations

Falls are the leading cause of unintentional injury worldwide and are recognized as a global health problem. A fall is defined as inadvertently coming to rest on a lower level or the ground, not due to an external event to which any person is vulnerable or due to an acute overwhelming event (such as stroke, loss of consciousness, or seizure) (Phelan et al., 2015). Most commonly falls occur in the elderly population aged 65 and older (Center for Disease Control and Prevention (CDC, 2021). In the United States, three million people are seen in the emergency departments for fall injuries yearly and 800,000 people are hospitalized due to fall injury (CDC, 2021). One of the numerous goals of the Office of Disease Prevention and Health Promotion (ODPHP) for Healthy People 2030 is to reduce fall-related deaths among adults over age 65 (IVP-08) (ODPHP, 2020). In 2019, there were 66.3 deaths per 100,000 people, which increased from 64.4 deaths in 2018 (ODPHP, 2020). ODPHP's (2020) goal is to reduce fall-related deaths to 63.4 deaths per 100,000 individuals. This paper explores the literature related to falls and fall risks and will present information and evidence that may be used to develop quality improvement interventions and measures to address falls.

Problem Identification/Available Knowledge

Roughly 40-60% of falls result in substantial fractures, lacerations, or traumatic brain injuries (Prabhakaran et al., 2019). Falls can be detrimental to individuals by potentially triggering a vicious cycle of decreased physical activity, increased risk of subsequent falls, deconditioning, depression, functional decline, and repeat hospitalizations (Prabhakaran et al., 2019). The risk for falls are often enhanced by disabilities, functional limitation, chronic illnesses, or cognitive impairment (Hoffman et al., 2019). Medications, such as antidepressants,

anticonvulsants, benzodiazepines, sedative hypnotics, and neuroleptics, are common medications associated with increased risk for falls.

Patient falls commonly occur while hospitalized or after the transition of care. In an acute patient care setting incidents of patient falls are between three to eleven falls per 1,000 patient days (Francis-Coad et al., 2021). Patients who fall while hospitalized are at risk for injury and an increased length of hospital stay. The Joint Commission Center for Transforming Healthcare (JCCTH, 2022) stated 30-35% of patients who fall suffer an injury, which increases patients' hospital stay by 6.3 days on average. On average it costs $14,000 to $30,000 for falls with an injury and in 2015 falls contributed to a total of $50 billion in healthcare expenses (JCCTH, 2022; CDC, 2021). Patients who fall in the hospital have a 40% risk of falling one or more times within the first six months after discharge (Francis-Coad et al., 2021). Falls occur for a variety of reasons including lack of mobility during hospitalization due to lack of independence and increased fatigue, poor hand off communication, lack of effective patient and family education at discharge, and inadequate fall interventions at discharge (Adams et al., 2019; Hoffman et al., 2019; Ireland et al., 2017; Zanovello et al., 2020).

After discharging from an acute care setting patients are at an increased risk for falls. The average fall rate in the general older community is 30% with 10% of falls resulting in serious injury, compared to older adults recently discharge from the hospital fall rates increase to 40% in the six-month time frame after hospitalization and 54% of those falls resulting in serious injuries (Naseri et al., 2018). While studies have been completed to evaluate the effectiveness of fall assessments and prevention in the older adult community, minimal research has been completed on fall assessments and prevention in adults prior to or immediately after discharge. A fishbone diagram is included in Appendix A that graphically shows the cause and effects of falls.

PICOT Question

The PICOT question that could be considered for falls is, in patients 65 years and older on a medical surgical floor (P) does implementation of an evidence-based outpatient fall risk tool in an acute care setting (I) compared to when a fall risk tool is not implemented prior to discharge (C) reduce outpatient falls and 30-day readmissions (T)?

Literature Review, Matrix Development and Literature Synthesis

Search Process

An extensive search of available literature was performed using the databases CINAHL, EBSCO, PubMed, and Google Scholar. The search terms included the following: inpatient tools to prevent outpatient falls, fall prevention in the transition of care, adults, fall tools, outpatient falls, and readmissions. There are tools available to help prevent falls in an inpatient setting and outpatient setting, but there are minimal guidelines on tools to help providers assess outpatient fall risk prior to acute care discharge. For this literature search, journal articles were carefully reviewed for inclusion of information including articles in the English language, articles published within the past ten years, and falls occurring at home. Exclusion criteria included articles over ten years old, not in the English language, falls in an inpatient setting, falls that occur in assisted living, and falls that occur in long-term care facilities.

Literature Review

In the literature reviewed there is an evident need for preventing falls in the older adult population 65 years of age and older (CDC, 2021; ODPHP, 2020; Prabhakaran et al., 2019), after the transition of care from the hospital to home and to prevent hospital readmission. The Joint Commission (2015), ODPHP (2020), and CDC (2021) indicated the increasing incidence of falls in the older adult population and the goal of reducing falls in both the hospital and outpatient

setting. The time frame after patients are discharged from an acute care setting is a vulnerable time for the patient due to weakness from hospital stay, new medications, and co-morbidities (Adams et al., 2019). Alper (2022) found that there is no specific time frame that indicates optimal timing for follow-up, but Riven (2018) found that the optimal time frame to follow up is within ten days, but no later than 21 days.

Patients have a four times greater risk of falling right after being discharged from the hospital, while that risk continually decreases each week after the patient is discharged any amount of time could result in a detrimental fall related injury (Hoffman, 2020). Adams (2019) found that the highest rates for older adult falls occur in the first two weeks following discharge. Preventing outpatient falls also reduces readmissions for patients (Hoffman et al., 2019) which correlates with Healthy People 2030's goal of reducing emergency room visits due to fall-related injuries in older adults (ODPHP, 2020).

Approaches and Interventions

While most emphasis and tools are geared toward preventing inpatient falls (Strini & Schiavolin, 2021), there is room for healthcare to grow in interventions provided before high-risk fall patients discharge home (Patterson et al., 2018; Francis-Coad et al., 2021). During the transition of care from the hospital to the patient going home there is currently not a specific fall assessment implemented at a majority of facilities, but there is an opportunity for the organizations and providers to implement a fall prevention tool, such as Hendrich II (Patterson et al., 2018) or Stopping Elderly Accidents, Deaths, and Injuries (STEADI) (Rogers et al., 2021). The Hendrich II has been widely implemented in the inpatient setting and testing completed has proven it to be useful to assess falls in the outpatient setting (Patterson et al., 2018). The Hendrich II assessment identifies risk factors, such as orientation, altered mental status,

incontinence, dizziness, gender, anticonvulsants, benzodiazepines, and the Get-Up-and-Go Test (Patterson et al., 2018). The risk factors are pre assigned risk points (1-4), and the patient is considered high risk if scored greater than five. Barriers to Hendrich II is that another tool would need to be used in conjunction to provide effective interventions, there is no differentiation between low, medium, and high risk, and was made to monitor fall risk over an extended length of time.

The CDC approved tool STEADI has been proven to be easy to implement and effective at predicting falls (Loonlawong, 2022). The STEADI tool provides unique assessments to predict fall risk independently of traditional markers based on the patient's level of physical health (Strini & Schiavolin, 2021), but it was found that this tool does have a higher false-negative rate among patients who are considered low risk (Loonlawong, 2022). The time to administer the assessments vary with fall tools. The Hendrich II takes an estimated 10 minutes, while the STEADI tool takes an estimated 15 minutes (Strini & Schiavolin, 2021).

The STEADI assessment screens older adults for fall risk factors and implements correlating interventions based on risk level along with specific exercise interventions. The STEADI assessment begins with the provider's review of three questions with the patient: do you feel unsteady when walking or standing, do you worry about falling, and have you fallen in the past year (Loonlawong, 2022). Based on the assessment completed by the healthcare providers, patients are given the Stay Independent brochure which provides a more in-depth assessment on the patients fall risk (Loonlawong, 2022). STEADI’s screening classifies falls into low, medium, and high risk based on providers assessment, the Stay Independent brochure, and Timed Up & Go assessment (Loonlawong, 2022).

While there are no specific interventions tied to the Hendrich II assessment, the STEADI tool has set interventions in place for different fall risk categories (Loonlawong, 2022). STEADI interventions vary depending on the risk for falls. For patients not at risk of falls, fall prevention education is given, vitamin D intake is assessed, a referral for community exercise is placed, and patients are followed yearly for fall assessments unless a fall occurs then the individual is seen at time of fall (CDC, n.d.). Individuals who are at risk of falls have further assessments completed, including but not limited to vision checks, feet or footwear assessments, assessment of vitamin D intake, and comorbidities identified (CDC, n.d.). The individuals who are identified as a fall risk undergo the development of individualized care plans. Common recommended interventions include, physical and occupational therapy referral, evidence-based practice fall program (Tai Chi), optimizing medications, and blood pressure management (CDC, n.d.). Time is a valuable resource for health care providers, by having an assessment that includes interventions with each fall risk level it allows providers to optimize their time.

Outcomes and Measures

The ODPHP goal for Healthy People 2030 is to reduce the rate of emergency room visits to due falls in the older adult population by 605.2 per 100,000 adults, or a 10% improvement from the baseline of 6,052.2 per 100,000 adults (ODPHP, 2020). The goal of this quality improvement project is to produce a new fall policy with an educational program for healthcare provider at a mid-sized healthcare agency in the Midwest. The goal is to have 100% of providers who complete the fall risk education feel comfortable with implementing the STEADI assessment into their clinical practice as indicated. Through development and implementation of a fall assessment policy using the STEADI assessment and correlating interventions prior to

patient discharging from an acute care setting the goal would be to have outpatient falls reduced by 10%.

Literature Synthesis

A review of the literature showed an increased need to bridge the gap between patients discharging from the hospital and following up with a provider. This gap can be a vulnerable time for patients that creates an increased risk for patient falls due to newly diagnosis, increased weakness from hospital stays, and new medications (Adams et al., 2019). By having the discharging provider implement the STEADI fall assessment prior to patients discharging home, there can be an increase in the continuity of care for patients during their transition from the hospital to home, which can help decrease the number of falls patients have following hospitalization. Though there are numerous fall risk assessments available, few are able to help providers assess patients prior to discharging home. The STEADI tool proves to be the most promising to help prevent falls in an outpatient setting due to the associated interventions with the differing fall risk levels.

The goal of the quality improvement project was to create a policy implementing a sustainable educational program for providers on the STEADI assessment and interventions. This policy is intended to help providers who interact with patients 65 years and older. A policy recommendation on the implementation of fall risk education was recommended and explained the importance of fall risk assessments before discharging patients home and the steps of implementing the STEADI assessment and correlation interventions. The policy recommendation supported the implementation of provider training on STEADI tool kit through the CDC's provided STEADI Empowering Healthcare Providers to Reduce Fall Risk education as a part of their required training for the facility. The policy also aimed to make the providers

feel more comfortable and confident in implementing the STEADI assessment and correlating interventions. To measure the providers comfort and understanding of the STEADI tool kit the policy recommendation includes a pre- and post-knowledge assessment which is to be completed with the educational program.

Organizational Project Information

Agency Specifics

For this quality improvement project, the types of agencies appropriate for the policy presented in this paper are facilities that have medical-surgical patients, specifically patients 65 years and older. The agency size would be 100 to 500 staffed patient beds in a town with a population of 60,000 to 100,000 people. The goals of the agency should include improving patient outcomes throughout the agency and community the agency resides in.

Stakeholders and Interprofessional Team

The three main stakeholders in preventing patient falls after discharging from the hospital setting includes patients 65 years and older, healthcare providers, and healthcare agencies. The patient's goal is to remain mobile as long as able, this can be achieved through implementing a fall risk assessment prior to discharging home. The patient's needs include effective communication to relay the importance and knowledge associated with fall prevention strategies and risks. The healthcare providers (doctors, nurse practitioners, and physician assistants) goal is to provide thorough assessments and implement appropriate interventions. The needs of providers are constructive communication to promote fall prevention assessment and risks to patients or their families. Another need is to provide ownership to promote autonomy and beneficence. Healthcare agencies, such as hospitals or clinics, strive to promote patient safety in and out of the healthcare setting through the implementation of fall prevention. The needs of

healthcare agencies include ownership to promote positive patient outcomes and approval to encourage and promote safe practices regarding patient fall assessments and interventions.

The interprofessional team for this project included the project leader who reviewed the available literature and created the policy recommendation. The project chair guided and supported the project leader throughout the process of the policy recommendation. The expert evaluators reviewed the policy recommendations and provided productive feedback to project leader.

The Gap Analysis

A representative agency was approached to investigate the gap in practice and policy use surrounding falls. Often there is not a specific policy at the agency regarding fall risk assessment and interventions before discharge. The Morse Fall Risk and associated interventions are implemented by nursing staff in the acute care setting and Timed Up and Go assessment is used in the clinic setting by providers. The problem that arises with this current plan of care regarding patient falls is that it creates a vulnerable time for patients after discharging, but prior to their follow up appointment. While research shows that follow-up appointments after discharge can reduce hospital readmissions, two main issues are presented: patients are often readmitted before their follow-up appointment and numerous patients are not established with a primary care provider (Alper et al., 2022). During the fragile time between transitioning out of the acute care setting and following up with the primary care provider patients are more at risk for fall-associated injuries and readmissions (Alper et al., 2022). Currently at the representative agency, there were few validated fall assessments tools to implement prior to discharging from the hospital. This is due to the majority of fall assessments specifically indicated for inpatient and community use (Stini & Schiavolin, 2021). Due to the lack of assessment tools, there is no

specific algorithm to follow to implement fall prevention interventions before, during, and after a transition of care.

Another gap includes minimal provider training or education on potential fall risks prior to discharge, such as medications, comorbidities, and the length of hospital stay (Adams et al., 2019). Providers are encouraged to use their best clinic judgment, but the practice is based on the individual provider's arbitrary opinion. Most commonly fall risk assessments are performed during the hospital stay such as Morse Fall Risk and at the one to two week hospital follow up appointment.

Needs Assessment

The Gap Analysis proves the areas of improvement that are needed to bridge the gap between current conditions and reduce patient falls. Patient falls have numerous consequences. Falls can decrease the quality of life for patients due to decreased mobility, pain, and lack of independence. Falls create an increased cost for insurance and patients. Medicare Insurance paid roughly $50 million in 2020, with the average cost for a three day hospital stay being around $30,000 (CDC, 2021). Patients may have to pay some, or all of the hospital stay cost depending on their insurance coverage. Another consequence of patient falls is decrease of patient independence. Falls can lead to traumatic head injury, skin abrasion, visceral organ contusion, and bone fracture (Lam et al., 2016). These injuries can cause patients to need permanent medical or physical assistance depending on the severity of the injury.

Currently, there are fall assessments and interventions for patients while they are hospitalized. Once patients have transitioned out of the hospital setting, further assessments and interventions can be implemented. Based on the results of outpatient fall risk assessment interventions, such as outpatient therapies, environmental evaluation, medication management,

and follow up assessments, can be implemented (Francis-Coad et al., 2021). By adding a policy that implements an assessment tool before transitioning out of an acute care setting agencies have the potential to reduce patient falls in an outpatient setting. The length of time between patients going home from the hospital and following up with their primary care provider is a fragile period due to potential increased weakness from hospitalization, new medications, and increased fatigue (Alper et al., 2022). By supporting a policy that would implement a pre-discharge fall assessment tool to predict outpatient falls and provide appropriate interventions, agencies would be able to reduce outpatient falls and hospital readmission due to fall-related injuries.

Strengths, Weaknesses, Opportunities, and Threats Analysis.

The strengths, weakness, opportunities, and threats (SWOT) analysis was conducted (see Appendix C).

Strengths

Through the incorporation of a fall risk assessment, providers are encouraged to deliver safe and thorough care for their patients before discharge allowing providers to promote patient autonomy and beneficence. By implementing a fall risk assessment tool before the patient transitions out of the hospital, interventions can be incorporated to promote patient independence and reduce patient falls. With the fall risk assessment, healthcare providers and organizations can prevent patient falls during a vulnerable time of transitions and reduce hospital readmissions, therefore decreasing unnecessary costs.

Weakness

One potential weakness for implementation of a fall risk assessment can include failure of adequate communication. Often patients and families become overwhelmed with the vast

amounts of information and education reviewed before being discharged home. Due to recent hospitalizations, the patient may be less likely to retain the information given due to fatigue, weakness, and stressors of returning home.

Another barrier is adequate staffing at the facility. Currently providers are having to take on increasingly large patient loads which limits the amount of time providers are able to spend with each patient. This intervention creates an additional step for healthcare providers. In the wake of the Covid Pandemic and healthcare shortages, providers are stretched thin. Implementing another assessment into the workflow of the healthcare providers could create opportunities for errors and mistakes. Administrative support is another weakness, due to short staffing, increased finances are needed for locum and travel healthcare workers. With the increased budget for staffing concerns, current facilities are cutting back on funding for clinical projects.

Opportunities

The opportunities of implementing a fall risk assessment before patient discharge includes reducing hospital readmissions. By implementing a fall risk assessment before the transition of care, healthcare organizations can help reduce the potential number of fall-related readmissions. A second opportunity is that a fall risk assessment before discharge promotes patient independence after the transition of care. The fall risk assessments tool allows providers to implement appropriate interventions to promote patients to live to their fullest mobility status. A third opportunity is that a fall risk assessment before discharge promotes patient and family-centered care. Through assessing the patient and creating an individualized plan of care, patients and families are provided a complete and personalized plan of care.

Threats

Willingness for the patient and family participation is one threat to implementing a fall risk assessment tool before discharge. Patients and families can become overwhelmed with the extensive amount of education reviewed before being discharged home, if patients and families are unable to grasp the information and interventions offered there may be a need for education reinforcement. A second threat that presents is the shortage of providers. Healthcare providers are stretched thin with the challenges of the COVID pandemic and healthcare provider shortage. Implementing another assessment into the workflow of the healthcare providers has the potential to create negative attitudes towards fall risk assessments. The time needed to educate providers on the assessment tool would take valuable time of the provider and hospital educators, thus creating a barrier. The funding of implementing a quality improvement project could also be a potential roadblock if the agency deems quality improvement projects unnecessary or redundant.

Theoretical Framework and Change Theory

The conceptual framework which could underpin implementation of an appropriate fall risk assessment tool would be Neumann's Systems Model. This model focuses on content that varies depending on the person's interaction with the environment: the degree of reaction; prevention as intervention; line of resistance; flexible line of defense; normal line of defense; moving the system toward stability of a higher degree of wellness; stability; and prevention (Alligood, 2022). Neuman's theory was designed to show that each patient is a multidimensional person. According to this theory, each layer consists of subsystems, including physicochemical structure, psychological, socio-culture, spiritual, and developmental (Alligood, 2022). In application to this project, Neuman's theory proves that each patient is individual and thus needs specific interventions that would be tailored to their specialized needs. A fall risk assessment before the transition of care provides an opportunity for providers to see how the patient as a

person interacts with their environment and assess what interventions would be appropriate. This theory is not able to assess every extrinsic factor but does promote assessing the patient as a whole. This theory promotes personalized patient-centered care with interventions that comply with the patient and patient's life as a whole package.

The change theory that could guide the implementation of a fall assessment tool is Rogers Change Theory. Rogers Change Theory is a five-stage process that includes knowledge, persuasion, decision, implementation, and confirmation (Barrow et al., 2021). In the first stage (knowledge), available research is found and reviewed. In the second stage (persuasion), the formation of a specific attitude towards the intervention is created and shared with colleges and mentors. In the third stage (decision), the intervention is chosen to be implemented or rejected. In the fourth stage (implementation), the intervention is put into practice. In the fifth stage (confirmation), the intervention is adopted and implemented into practice. This theory provides an in-depth guide for understanding and implementing an intervention on fall prevention during the transition of care from an acute care setting.

Objectives Clarified

The specific aim of this project is to produce a policy recommendation which can reduce falls and fall-related injuries in adults over 65 years of age through the development and dissemination of education and training. Specifically, to reduce patient falls through the implementation of an evidence-based fall risk assessment before discharging from the acute care setting to home. The specific, measurable, attainable, relevant, and timely (SMART) objectives include the creation of a policy recommendation, implementation of an educational program, increased provider understanding and comfort of fall assessment, and decreasing fall rates at the agency.

Goal 1: Identify the Gap in Practice

To identify the gap in practice the project leader will review the current literature regarding falls, fall preventions, fall interventions, and falls assessments. The pertinent literature will then be synthesized into the best practice recommendations. Based on the best practice recommendations, the project leader will review with the project chair the identified audience, potential interventions, and possible barriers. Goal 1 will be completed by week twelve (see Appendix K).

Objective 1: Review the Literature

Review scholarly databases, CINAHL, EBSCO, PubMed, and Google Scholar, to find evidence-based interventions for fall prevention. Utilize search terms such as inpatient tools to prevent outpatient falls, fall prevention in the transition of care, adults, fall tools, outpatient falls, and readmissions. Review the chosen evidence-based practice articles to create a literature matrix identifying the research designs, findings, and quality of each article. This objective will be measured by completion or incompletion on week ten.

Objective 2: Synthesize the Literature into Best Practice Recommendations

Using the scholarly articles found in Goal 1, synthesize information to create best practice recommendations. Review common themes in articles such as risk factors, fall tools, and fall interventions. The findings from evidence-based practice articles review recommended approaches, interventions, outcomes, and measures. This objective will be measured by completion or incompletion on week twelve.

Goal 2: Create Policy Based on the Best Practice Recommendations

The project leader will create a proposed policy based on the literature review completed. The proposed policy will be reviewed by expert evaluators for feedback and recommendations.

The policy will be updated per the recommendations of the expert evaluators to create an effective and efficient policy. Goal 2 will be completed by week thirty (see Appendix K).

Objective 1: Create a Proposed Policy

Create a policy brief advising the implementation of an educational program reviewing the STEAD tool kit. This policy brief will recommend the implementation of a fall prevention educational program for healthcare providers who work in acute care settings and care for patients 65 years and older. The educational program will include a yearly required training for all healthcare providers to be completed with pre- and post-knowledge quizzes. The educational program is explained in the next objective, as well as the pre- and post-knowledge assessment will show the growth of the healthcare providers. This objective will be measured by completion or incompletion on week twenty.

Objective 2: Review Policy with Expert Evaluators

The project leader will consult with the project chair to select three to six expert evaluators to review expert evaluators. The project leader will contact expert evaluators via email (see Appendix G). Expert evaluators will contact project leaders if they are willing to participate in reviewing policy recommendations.

During a one hour individual or group meetings with the expert evaluator, the project leader will review policy recommendations regarding implementing the fall educational program on the STEADI toolkit for healthcare providers. The project leader will review the proposed policy (see Appendix H) and the proposed educational program. The educational program will be described in detail for expert evaluators to review. This objective will be measured by the evaluation of the policy through qualitative review of the evaluators responses by week twenty six.

Policy Proposed Educational Program. The educational program will provide information on the current fall rate of the facility, the risk of falls for patients older than 65 years of age, a review of the STEADI assessment, and potential interventions. A pre- and post-knowledge assessment will be completed to assess the understanding of the participants of the information provided (see Appendix O). The educational material will include individualized facility fall rates, current fall programs that are in place, and currently utilized fall interventions. The STEADI Empowering Healthcare Providers to Reduce Fall Risk is a free pre-recorded slideshow provided by the CDC that will be implemented in the educational program. Empowering Healthcare Providers to Reduce Fall Risk slideshow reviews fall burdens, fall preventions, fall screening, specific fall assessment and interventions, and how to integrate fall education into the provider's daily practice (CDC, n.d.). Handouts will be provided to each participating provider including, the CDC STEADI Algorithm for Falls Risk Screening, Assessment, and Intervention (see Appendix P) and the STEADI Preventing Falls in Older Patients: Provider Pocket Guide (see Appendix Q).

Objective 3: 100% of Expert Evaluators Will Provide Valuable Feedback to Improve Recommended Policy Once Implemented

At the end of the individual or group meetings with expert evaluators (see Goal 4), each expert evaluator will be given an evaluation form to review what they liked/disliked about the proposed policy and suggestions they have to improve the policy (see Appendix I). The project leader will review the expert evaluator's recommendations on how to improve or enhance the policy recommendation and implement recommendations accordingly. This objective will be measured by the evaluation of the policy through qualitative review of the evaluators responses by week twenty six.

Objective 4: 100% of Expert Evaluators Will Support the Fall Policy Education

The project leader will review policy recommendations with expert evaluators at the individual or group meetings (see Goal 4). Each expert evaluator will review if they support or oppose the policy recommendations on the evaluation form and explain why (see Appendix I). The project chair will record the expert evaluator's answers. This objective will be measured by the evaluation of the policy through qualitative review of the evaluators responses by week twenty six.

Objective 5: Incorporate Expert Evaluators Recommendations to Policy

The project leader will review the feedback provided by the expert evaluators. Recommendations and improvements provided by evaluators will be incorporated into the policy to create an updated policy. This objective will be measured by completion or incompletion on week thirty.

Objective 6: Submit Policy to Agency

Once the expert evaluator's feedback and suggestions have been reviewed and implemented into the proposed policy, the project leader will submit the policy to the Doctoral Project Repository. The ideal agency for this policy is described in Agency Specifics (Page 10). Agencies that are interested in implementing the policy will be provided with the following: STEADI Educational Policy Template; The STEADI Empowering Healthcare Providers to Reduce Fall Risk slideshow; STEADI Fall Educational Program Knowledge Assessment; Algorithm for Falls Risk Screening, Assessment, and Intervention; and STEADI Preventing Falls in Older Patients: Provider Pocket Guide. This objective will be measured by completion or incompletion on week thirty.

Work Breakdown Structure, GANNT chart, and Logic Model

To illustrate the progress of this project a Work Breakdown Structure (WBS), GANNT chart, and Logic Model are utilized. The WBS is a tree graph that breaks down a project into different tasks to be completed hierarchically. For this project, the WBS is broken down into the initiation, planning, execution, control, and follow-up of the project (see Appendix J). The GANNT chart is a bar graph that is used to illustrate the project schedule in milestones and requirements. In this project, the GANNT chart uses the milestones from the WBS and visually reviews the project's tasks (see Appendix K). The Logic Model is a visual road map of the relationship between projects, such as the inputs, constraints, activities, outputs, and outcomes. The problem is identified and intended impacts are reviewed in a Logic Model for this project (see Appendix L).

Communication Matrix

A Communication Matrix is a visual representation of the planned communication between quality improvement project stakeholders. This project's communication matrix reviews when the project leader communicated with or met with the project chair or other experts (see Appendix M).

Methodology and Analysis

This project aims to reduce falls and fall-related injuries in adults over 65 years of age through the development and dissemination of an educational and training policy. To understand the effectiveness of the STEADI educational program specific measures are put into place. According to the Institute for Healthcare Improvement (IHI), there are three measures to review implemented changes: outcome, process, and balancing measures (see Appendix N).

The cost of the implementation measures includes the following: the time of the healthcare providers, policy experts, and hospital administrators and cost of materials (paper,

pamphlets, and computers). Expert evaluators would be an estimated $85 per hour with a minimum of three hours allotted for time spent on the quality improvement project would cost $255 for each expert evaluator. For three to six expert evaluators the estimated cost would range from $765-$1,530. The cost for project char is $125 per hour with a minimum of three hours allot for time spent on reviewing the quality improvement project would cost an estimated total of $375. The cost for project leader is $35 per hour with a minimum of three hours allot for time spent on reviewing the quality improvement project would cost an estimated total of $105.

Outcome Measures

Outcome measures review the systematic impact of interventions on the patients and stakeholders (IHI, 2022). The outcome desired for this project was to complete a policy recommendation to help reduce fall rates at agencies through implementing an educational program on the STEADI toolkit. Evaluation of the outcome was measured as met or not met. Evaluators provided feedback which was used to iteratively update the final policy recommendation per the theoretical underpinnings of the PDSA cycle. The project leader will complete a literature review, synthesis the literature, and create a policy proposal based on the information found. The policy proposal on Implementing STEADI Toolkit will be reviewed with expert evaluators and reviewed for improvements to implement policy at an agency. This will be reviewed once and the completion of the meeting with the expert evaluators by the project leader.

Process Measures

According to IHI (2022), process measures track the steps or efforts that are in place to improve the system. The data for all three of the following measures will be collected by the project leader at the completion of the meeting with the expert evaluator. The first measure is to review the policy proposal on implementing the STEADI toolkit with the expert evaluators. With

individual or group meetings with the expert evaluators, the project leader will review the policy proposal and the correlating STEADI educational program, assessment, and interventions.

The second process measure is to have all expert evaluators provide feedback and suggestions to improve the policy recommendation. After individual or group meetings with expert evaluators, the project leader will give each expert evaluator a Policy Proposal Evaluation (see Appendix I). The first question on the Policy Proposal Evaluation will review if the expert evaluator liked the proposed policy and why. The second question will review what changes they would suggest to improve the policy. The project leader will review recommendations or changes and alter policy accordingly.

The third process measure is to have all expert evaluators support the proposed policy on implementing the STEADI toolkit. The project leader will collect this data once upon the completion of the meeting with expert evaluators. The project leader will provide the Policy Proposal Evaluation for expert evaluators to complete. The third question will review if they would support the implementation of the policy at their agency (see Appendix I).

Ethical Considerations

The Institutional Review Board (IRB) at the College of Saint Scholastica reviewed the ethical considerations of the proposed intervention to ensure the protection of involved participants. The IRB found no ethical considerations in the proposed policy based on the following information. The participants included three to six expert evaluators, one project chair, and one project leader. Each participant met with the project leader for approximately one hour to review the quality improvement project. The project leader spent 20 minutes reviewing and explaining the policy recommendations regarding implementing the fall educational program on the STEADI toolkit for healthcare providers. The project leader reviewed the policy

recommendation (see Appendix H). There were 10-15 minutes allotted for expert evaluator feedback. An additional 30 minutes was allotted for expert evaluators to fill out policy recommendations review forms (see Appendix I).

There was not any direct benefits for the participants, and the indirect benefits included increasing understanding of fall risk assessments and providing needed support to create a tool that can have a direct impact on healthcare agencies in the future. There was no risks or violations for participants. Potential discomforts could include exacerbation of learning anxiety, such as difficulty comprehending, dyslexia, or insufficient time due to the work environment or time allotted for education. To decrease potential learning anxiety adequate time was allotted for participants to complete necessary activities. Participant evaluator's names were deidentified on any data and was not utilized in any dissemination of the policy, nor was endorsements of the policy by specific individuals be made public. Participant consent is not indicated for this policy recommendation. There is no conflict of interest between the expert evaluators and policy recommendations. The IRB was given the following resources to review: Expert Evaluator Sample Email, Policy Proposal, Expert Evaluation Form, STEADI Fall Educational Program Knowledge Assessment, STEADI Empowering Healthcare Providers to Reduce Fall Risk, CDC STEADI Algorithm for Fall Risk Screening, Assessment, and Intervention, and STEADI Preventing Falls in Older Patients: Provider Pocket Guide.

Implementation

Once IRB approval was obtained, the project leader reached out to the expert policy evaluators via email (see Appendix G). The three expert evaluators who agreed to review the proposed policy included: a medical doctor, a healthcare policy advisor, and a healthcare manager. Two of the three evaluators worked at the same organization, and the third evaluator worked at an

organization in a neighboring state. The project leader coordinated to meet with each expert evaluator on zoom or in person for one hour. The first 20 minutes of each meeting was spent reviewing the policy recommendations regarding implementing the fall educational program on the STEADI toolkit for healthcare providers and the policy recommendation (see Appendix H). A designated 10-15 minutes was allotted for expert evaluator feedback. The final 30 minutes of the meeting were allotted for the expert evaluators to fill out policy recommendations review forms (see Appendix I). The project leader followed up with an email to each expert evaluator thanking them for their time and feedback.

Results from Data Collection

Each expert evaluator completed a four-question evaluation based on information provided on the policy recommendation (see Appendix I). Question one: *Did you like the policy? Please explain your answer.* Expert #1 stated that they enjoyed the policy, describing it as comprehensive and provided detail where needed without going into unnecessary specifics. Expert #2 stated they liked the policy, specifically that the intervention is data-driven and is building off a foundation of information that is already proven and implemented at other healthcare agencies. Expert #3 stated that the intervention addresses a current issue logically and efficiently.

Question two: *Was the content valuable? Please explain.* Expert #1 found the information to be valuable, comprehensive, and provided an appropriate amount of detail when needed. “If I had a question, there was an answer or resource provided”. Expert #2 stated they valued the content of the policy due to its practicality. They continued to state that the intervention is practical in that it explains clearly how to accomplish the task of implementing and sustaining the policy. Expert #3 stated the content was clear and concise while showing how the information was valuable and needed in a healthcare setting.

Question three: *What changes or recommendations would you suggest to improve this policy recommendation?* Expert #1 wanted to ensure policy continues to stay effective and accurate; they encouraged that the policy should be reviewed and updated annually for any updated or new evidence-based practice. Expert #2 wondered if alterations would need to be made to make the generalized CDC-recommended intervention more specific for the intended organization. Such as "is this intended policy a perfect fit for the healthcare agencies in North Dakota or would the information need to be tailored to make the policy a perfect fit". Expert #3 questioned if it would be an option to review the patient's understanding and comprehension of fall intervention before and after the intervention is implemented.

Question four: *Would you support your agency implanting this policy?* All three expert evaluators acknowledged they would support their agency in implementing the proposed policy. The three policy experts all indicated there is not a fall prevention policy in place to prevent falls after a patient is discharged from the hospital at their agency and that they would heavily support a system to integrate the policy into their agencies.

Outcome Interpretation

Three expert evaluators completed a qualitative review of the proposed policy. Feedback provided by the expert evaluators supported how the recommended policy would be beneficial in a healthcare setting. Based on the expert evaluators' review, it was found that the proposed policy addressed the current gap in healthcare in which patients are at an increased risk of falling after being discharged from a hospital setting. The policy is comprehensive and builds off information and interventions that have been tested and supported by the CDC. The policy provides ample detail regarding the need for implementing an intervention tool before discharging the patient from the hospital while being practical and clear in the objectives provided.

The policy was updated to be more efficient and effective based on the recommendations from the expert evaluators (see Appendix R). Updates included an annual review by the implementing organization's policy experts or fall committee to ensure the latest evidence-based practices are incorporated into the policy. To create an individualized policy for the differing healthcare agencies, an additional referral was added to the Discharge section to include referral to implanting agencies' outpatient programs. The recommendation to incorporate a review of patient and family comprehension of fall prevention education is valid, but was not implemented into this policy due to time restrictions for this quality improvement project.

Dissemination

To help bring more awareness to the topic of reducing patient falls during the transition of care, the project leader created different types of media and submitted the final paper to an online resource. An easy-to-view poster highlighting pertinent facts was created to excite and draw individuals into the topic. Resources were provided if the viewers wished to learn more on the topic (i.e. STEADI Preventing Falls in Older Patients: Provider Pocket guide and QR code to project leaders paper). The project leader submitted the final paper to the Doctoral Project Repository which is a website that allows the sharing of ideas between the medical professional community.

Conclusion

After discharge from an acute care setting patients aged 65 years and older are at an increased risk of falls. During the transition from the hospital to home, patients are susceptible to falls due to medication changes and general weakness from their hospital stay. While there are fall risk assessments geared to prevent inpatient or outpatient falls, there are minimal tools to assess the risk of falls during the vulnerable time for patients transitioning from an acute care

setting to home. Fall risk assessments completed by providers prior to discharge in an acute care setting is often arbitrary due to the lack of assessment tools. With the implementation of a policy recommending the application of the STEADI toolkit, agencies can better equip their healthcare providers with the tools needed to provide safe transitions for their patients as they transition out of the hospital setting. Enhanced safety during the transition of care can reduce costs for the patient and agency and improve overall patient outcomes.

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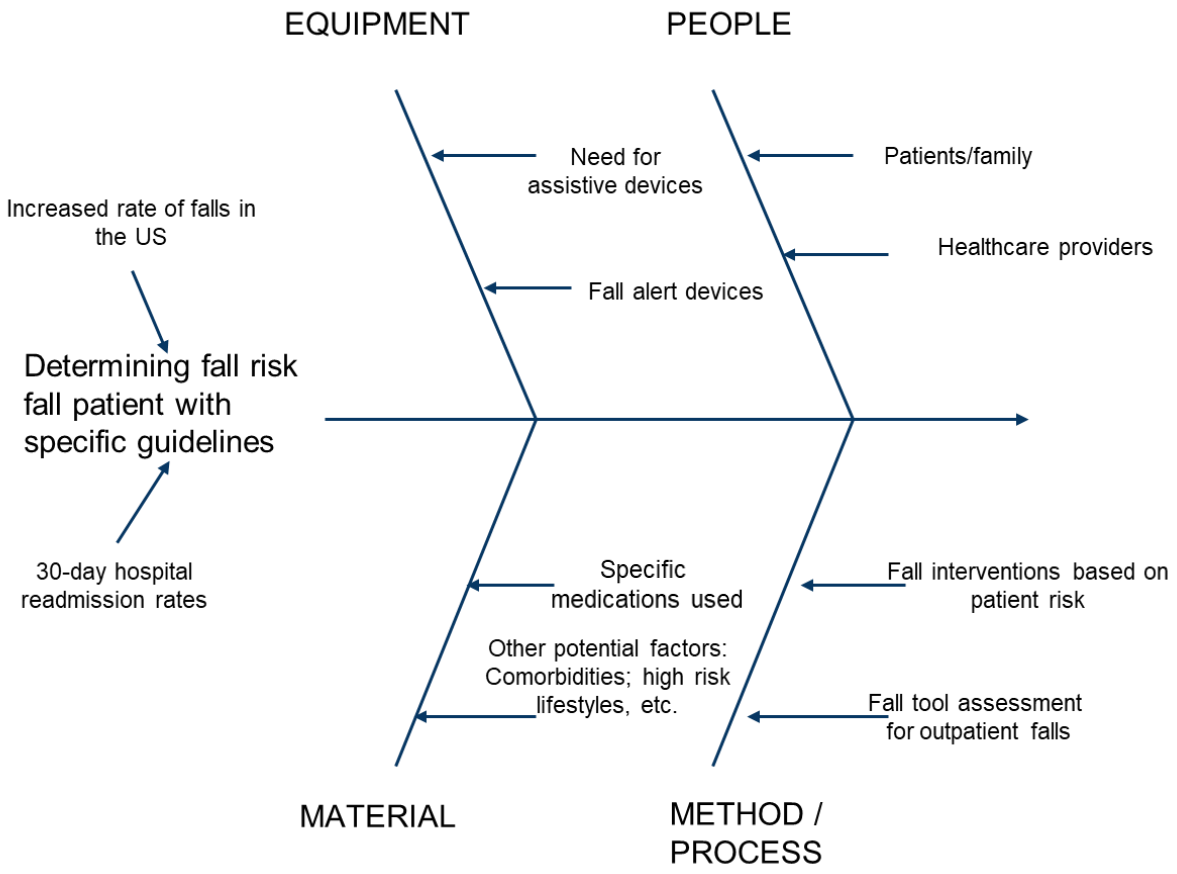
Appendices A: DNP Action Plan

DNP Project Charter/ Action Plan available at the following link:

https://docs.google.com/document/d/184DUopJTFUkIJphO0P3lBiVEm9TvtyIIYnA3SHsbhAE/edit?usp=sharing

Appendices B: Fishbone Diagram



Appendices C: Literature Matrix Table

Article	Research Design	Methodology	Purpose	Finding	Conclusion	Critical Appraisal Tool & Rating
Centers for Disease Control and Prevention. (2021, August). *Older adult fall prevention*. https://www.cdc.gov/falls/facts.html	Systematic Review	The CDC reviewed retrospective cohort studies and randomized control trials regarding falls that occur in an outpatient setting, such as at home or in the community.	The purpose of this article is to define what falls are, why falls occur, fall interventions, and common injuries with falls.	The fall rate in the United States (US) continues to increase, especially among people over the age of 65. One out of every five falls results in serious injuries that can lead to father complications, such as hospitalizations.	There are numerous interventions in place to prevent falls. Individual interventions, such as talking to one's provider, doing strength and balance exercises, having regular eye checks, and making the living environment safer. Organization interventions include programs such as STEADI. STEADI is a CDC resource that has interventions for inpatient and outpatient care.	Level VII; Good Quality
Centers for Disease Control and Prevention. (2021). *STEADI- Older adult fall prevention*. https://www.cdc.gov/steadi/	Evidence Base Tool	In depth literature review on identifying clinical practices, gait disorders, and evaluating patient reported falls.	STEADI is a tool that organizations and providers can incorporate into their care to provide initiative to help reduce falls in patients over the age of 65.	STEADI consists of three core elements including assessing patients for fall risk, assessing modifiable risk factors, and mediating to decrease risk through use of clinical and community resources. This tool provides intervention and resources based on fall risk.	This tool creates a uniform assessment of fall risk patients and interventions that correlate with patients fall risk score. STEADI provides education for providers and caregivers on fall risk and interventions available.	Level I; Good Quality
Francis-Coad, J., Lee, D. C. A., Haines, T. P., Morris, M. E., McPhail, S. M., Etherton-Beer, C., Shorr, R., Flicker, L., Weselman, T., Starling, T., & Hill, A. M. (2021). Fall prevention education for older people being discharged from hospital: Educators' perspective. *Health Education Journal*, *80*(8) 908-920. https://doi.org/10.1177/0017896921103271 1	Qualitative Research	Fall interventions were implemented in three rehabilitation hospitals in Australia. Three physiotherapists implement fall prevention teaching to 195 patients prior to discharge and follow up monthly for three months.	This study's goal is to assess the impact of a customized patient fall prevention education to avoid falls in older adults after discharge from the hospital.	The key barriers that affected patients in engaging in fall prevention education while in the hospital included unresolved medical conditions, patients beliefs and perceptions on falls, delays in care, and reluctance to accept assistance at time of discharge. These barriers impaired patients' ability to focus and retain fall education provided.	This study found that there is a need for a consistent patient education plan regarding fall assessment and education prior to discharge. It was recommended that improved patient plans and assistance with safe recovery after discharge from the hospital be addressed at a policy and organizational level.	Level VI; Intermediate Quality

Hoffman, G., Liu, H., Alexander, N. B., Tinetti, M., Braun, T., & Min, L. (2019). *JAMA Network Open, 2*(5). https://doi.org/10.1001/jamanetworkopen.2019.4276	Retrospective Quantitative Study	The Hospital Cost and Utilization Project's Nationwide Readmission Database, a representative of US hospital discharges among Medicare 65 years aged, to review fall related injuries and 30-day readmissions.	This study compared fall related readmissions with other leading diagnoses that cause readmissions.	Fall related injuries ranked third in cause of 30-day readmissions behind septicemia and heart failure. Implementation of intervention pre discharge and post discharge can decrease falls by approximately 20%.	To improve patient care and prevent unnecessary penalties, post discharge fall precautions need to be investigated to prevent falls and readmissions, specifically in the geriatric aged patients. Supporting patients during their transition from hospital to home is one of the highest priorities in preventing readmissions due to falls related injuries.	Level IV; Good Quality
Ireland, S., Freund-Heritage, R., Lam, R., MacKinnon, S., Bertand, K., Oluwadimu, B., Schumacher, T., Caplette, J., Carew, W., Sidhu, K., Dykeman, C., Swance, L., Feldman, F., Thomas, M., Tully, S., Wood, H., Versalles, D., & Zecevic, A. (2017). Preventing falls and reducing injury from falls. *International Affairs and Best Practice Guidelines, 3*. https://rnao.ca/bpg	Qualitative and Quantitative Research	Comprehensive article that reviews qualitative resources of evidence-based practice throughout literature to prevent Fallis in an outpatient setting and resources available.	Provide a compressive resource on evidence-based practice to guide and enhance decision making for health care providers working to prevent falls in adults.	This resource provides a plethora of information regarding fall risk prevention. Needed criteria for assessment tools, value of interventions, and interventions needed post fall are addressed in length.	To aid in overall reduction of falls in the adult population, fall risk assessments and interventions need to be completed in three main healthcare settings; community, hospital, and long-term care.	Level I; Good Quality
Joint Commission (2015). Preventing falls and fall-related injuries in healthcare facilities. *Sentinel Event Alert, 55*. https://www.jointcommission.org/resources/patient-safety-topics/sentinel-event/sentinel-event-alert-newsletters/sentinel-event-alert-55-preventing-falls-and-fall-related-injuries-in-health-care-facilities/	Systematic Review	A in depth review of quality improvement fall prevention initiatives implemented by Agency for Healthcare Research and Quality, ECRI Institute, Institute for Healthcare Improvement, Institute for Clinical Systems Improvement, the Joint Commission Center for Transforming Healthcare, and the U.S. Department of Veterans Affairs National Centers for patient safety.	Joint Commission goals in preventing falls in the elderly population.	The Joint Commission suggested action to improve fall risk rates at the hospital include raising awareness of falls and injuries that coincide, establishing an interdisciplinary fall prevention team, use of standardized tools to identify fall risk factors, develop individualized patient interventions, standardize practices and interventions, and conduct post fall evaluations.	Numerous tools and aids have been applied by other organizations (Agency for Healthcare Research and Quality and Institute for Healthcare Improvement) and have shown to decrease patient fall risk. Implementation of standardized fall risk tools can aid in reaching the goals set by the Joint Commission.	Level I; Good Quality

Office of Disease Prevention and Health Promotion. (2020). *Reduce fall-related deaths among older adults.* https://health.gov/healthypeople/objectives-and-data/browse-objectives/injury-prevention/reduce-fall-related-deaths-among-older-adults-ivp-08	Systematic Review	Evidence based practices and policies are reviewed on ways to encourage healthy living in the American population.	Healthy People 2030 goal to reduce falls injury visits to the emergency department and fall related deaths in older adults.	Both goals are continuing to get worse. The target goal for reducing fall related deaths in older adults is 63.4 per 100,000 individuals, currently the rate is 66.3 deaths. The target goal for reducing emergency room visits is 5,447 per 100,000, currently the status is 6,052.2 visits.	The goals of Healthy People 2030 indicate areas of improvement that are needed in the community and healthcare to improve the overall health of communities.	Level I; Good Quality
Patterson, B. W., Repplinger, M. D., Pulia, M. S., Batt, R. J., Svenson, J. E., Trinh, A., Mendonça, E. A., Smith, M. A., Hamedani, A. G., & Shah, M. N. (2018). Using the Hendrich II Inpatient Fall Risk Screen to Predict Outpatient Falls After Emergency Department Visits. *Journal of the American Geriatrics Society, 66*(4), 760–765. https://doi-org.akin.css.edu/10.1111/jgs.15299	Quantitative Research	A retrospective observational study using electronic health record data from level 1 trauma center. Individuals aged 65 years and older who have discharged from the acute care setting.	This study aims to assess the Hendrich II tool in predicting returns to the hospital within 6 months of discharge.	Hendrich II has been utilized for inpatients in the past, this study found that it can also be used to predict risk for outpatient falls. The tool would not be effective by itself, but in conjunction with community and healthcare interventions outpatient falls could be reduced.	While the Hendrich tool was an effective evaluation of predicting outpatient falls, a great need was found for interventions during transition of care from an acute care setting to home or skilled nursing facility.	Level III; Good Quality
Prabhakaran, K., Gogna, S., Pee, S., Samson, D., Con, J., & Latifi, R. (2019). Falling again? Falls in geriatric adults- risk factors and outcomes associated with recidivism. *Journal of Surgical Research, 247*, 66-76. https://doi.org/10.1016/j.jss.2019.10.041	Quantitative Research	The Nationwide Readmission Database was reviewed to identify patients 65 years and older who were admitted to acute care settings for falls in 2010.	The goal of this study is to identify factors that could predict repeat falls in adults older than age 65.	Risk factors were identified such as gender, age, depression, drug abuse, liver disease, heart disease, chronic pulmonary disease, chronic conditions, current healthcare status, and medications.	It is essential to identify risk factors associated with falls due to the increased fall related injuries and deaths. This study recommends identifying risk factors that help predict falls and applying interventions accordingly.	Level III; Good Quality
Rogers, S., Haddad, Y., Legha, J. K., Stannard, D., Auerbach, A., & Eckstrom, E. (2021). CDC STEADI: Best practices for developing an inpatient program to prevent older adults falls after discharge. *Centers for Disease Control and Prevention.* https://www.cdc.gov/steadi/	Evidence Base Tool	An in-depth literature review of articles that identify clinical practices, gait disorders, and evaluating patient reported falls.	This tool aims to help organizations and providers develop and implement a program to prevent patient falls after discharge in older adults.	This article provides a guide to organizations and providers on why fall prevention is relevant, how to develop hospital based STEADI safe mobility and fall prevention programs, and steps involved in the STEADI program.	STEADI provides education for providers and caregivers on fall risk and interventions available for older adults before and after they are discharged from the hospital.	Level I; Good Quality

Strini, V., Schiavolin, R., & Prendin, A. (2021). Fall Risk Assessment Scales: A Systematic Literature Review. *Nursing Reports*, *11*(2), 430–443. https://doi-org.akin.css.edu/10.3390/nursrep11020041	Systematic Review	An in-depth Literature search reviewed articles from MEDLINE, CINHAL, and Cochrane Database to review fall risk assessments and tools.	This study reviews the different fall risk tools and assessments present in healthcare literature.	A total of 38 fall risk tools were identified. Of those 23 were targeted towards hospitals, eight were for home assessments, and seven were for both populations.	There is no "ideal" tool that is identified for the perfect fall risk assessment. It is recommended that two fall risk assessments are implemented to create a direct and in-depth analysis to maximize fall risk prevention.	Level I; Good Quality

Appendices D: Stakeholders Table

Stakeholders	Specific Need	Role	Goal	Alignment with Project Goals
Patients	Communication: Patient education and knowledge of importance of fall prevention strategies and risks.	Understanding risks of the falls and prevention strategies to incorporate interventions into daily life.	Be amenable to education provided and implement interventions in activities of daily living.	The patients goals promote acceptance and implementation of fall risk behaviors which align with projects goals
Providers (Doctors, Nurse Practitioners, Physician Assistants)	Communication: Provide education on the importance of fall risks and prevention behaviors to patients. Ownership: To promote patient autonomy and beneficence. To provide safe and effective patient care.	Being knowledgeable on fall prevention assessments, risks, and interventions to educate patients and families on interventions available and the importance of implementing interventions.	Understanding the importance of fall risk assessments prior to discharge and providing appropriate interventions. Implementing assessments into daily practice.	The providers goal to reduce patient falls in an outpatient setting through inpatient assessments with appropriate interventions correlates with this projects goal
Healthcare agencies (Hospitals, Clinics)	Ownership: To help promote positive patient outcomes and reduce 30-day readmission rates Approval: Encouraging all healthcare staff and patients to promote safe practices regarding fall risk assessments and interventions.	Promote policies and changes to encourage fall risk prevention behaviors to healthcare staff and the community in which they reside.	Encourage implementation of fall risk assessments prior to discharge and promoting patient safety in and out of the healthcare organization setting	The healthcare agency's goal to reduce community falls and reduce hospital readmission supports this project's goal.

Appendices E: GAP Analysis Table

Current State	Desired State	Identified Gap	Gap due to knowledge, still and/or practice	Methods used to identify professional practice gap
What is currently happening? Fall related deaths and injuries in individuals 65 years and older have increased in recent years.	What should be happening? Ideally, patient falls in a community setting should be infrequent and avoided if possible.	Differences between what is and what should be What specific assessment is used prior to discharge in an acute care setting to help reduce or prevent outpatient falls?	Why does this this current state exists, what is the underlying cause Knowledge: lack of understanding the importance of fall assessments prior to patients transitioning of care Skill: Providers are using their personal assessments/ judgments Practice: there is not specific tool used to create a standard on predicting and reducing falls after transition of care	What evidence do you have to validate the gap exists? Literature analysis shows increased risk of patient falls after transition of care due to medical issues, weakness, fatigue, or confusion. There is a need for continuity in assessing fall risks in patients ≥ 65 years and implementing interventions accordingly.

Appendices F: Swot Analysis Table

Appendices G: Expert Evaluator Sample Email

Email to potential expert evaluators.

Dear (Expert Evaluators Name),

My Name is Tristin Dutton, I am currently a student at the College of Saint Scholastica enrolled in the Doctorate of Nursing Practice program. As a part of the program, I have created a policy based on a gap in care I have noticed throughout my career. Based on that gap and evidence-based practice I have developed a policy recommendation for Implementing an Educational Program for Healthcare Providers on the STEADI Toolkit. Would you be willing to be an expert evaluator on this policy?

If you are willing to participate, I will meet with you via Zoom or in person for approximately one hour to review the proposed policy. During that time, I will review the policy proposal in further detail and ask you for your opinions and recommendations based on your expertise and knowledge.

Please feel free to reach out to me with any questions.

Thank you for your time and consideration.

Tristin Dutton RN, BSN

tdutton@css.edu

Appendices H: Policy Proposal

Policy Recommendation for Reducing Patient Falls During the Transition of Care

One of the many goals of the Office of Disease Prevention and Health Promotion (ODPHP) for Healthy People 2030 is to reduce fall-related deaths among adults over age 65 (IVP-08).[1] In 2019, there were 66.3 deaths per 100,000 people, which increased from 64.4 deaths in 2018.[1] The ODPHP's goal is to reduce fall-related deaths to 63.4 deaths per 100,000 individuals.[1]

After discharging from an acute care setting patients are at an increased risk for falls. The average fall rate in the general older community is 30% with 10% of falls ensuing in serious injury, compared to older adults recently discharge from the hospital fall rates increase to 40% in the six-month time frame after hospitalization and 54% of those falls resulting in serious injuries.[2]

Roughly 40-60% of falls result in substantial fractures, lacerations, or traumatic brain injuries.[3] Falls can be detrimental to individuals by potentially triggering a vicious cycle of decreased physical activity, increased risk of subsequent falls, deconditioning, depression, functional decline, and repeat hospitalizations.[3] The risk for falls are often enhanced by disabilities, functional limitation, chronic illnesses, or cognitive impairment.[4] Medications, such as antidepressants, anticonvulsants, benzodiazepines, sedative hypnotics, and neuroleptics, are common medications associated with increased risk for falls.

There is an increased need for bridging the gap between patients discharging from the hospital and following up with a provider. This gap can be a vulnerable time for patients creating an increased risk for patient falls due to newly diagnosis, increased weakness from hospital stay, and new medications.[5] By having the discharging provider implement the Stopping Elderly Accidents, Deaths, and Injuries (STEADI) fall assessment prior to patients discharging home, there can be an increase in the continuity of care for patients during their transition from the hospital to home, which can help decrease the amount of falls patients have following hospitalization. The STEADI toolkit proves to be the most promising to help prevent falls in an outpatient setting due to the interventions associated with the differing fall risk levels.

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1 Office of Disease Prevention and Health Promotion. (2020). *Injury Prevention*. https://health.gov/healthypeople/objectives-and-data/browse-objectives/injury-prevention

2 Naseri, C., Haines, T. P., Etherton-Beer, C., McPhail, S., Morris, M. E., Flicker, L., Netto, J., Francis-Coad, J., Lee, D. A., Shorr, R., Hill, A. M. (2018). Reducing falls in older adults recently discharged from hospital: a systematic review and meta-analysis. *Age and Ageing, 47*(4), 512–519. https://doi.org/10.1093/ageing/afy043

3 Prabhakaran, K., Gogna, S., Pee, S., Samson, D., Con, J., & Latifi, R. (2019). Falling again? Falls in geriatric adults- risk factors and outcomes associated with recidivism. *Journal of Surgical Research,* 247, 66-76. https://doi.org/10.1016/j.jss.2019.10.041

4 Hoffman, G., Liu, H., Alexander, N. B., Tinetti, M., Braun, T., & Min, L. (2019). *JAMA Network Open, 2*(5). https://doi.org/10.1001/jamanetworkopen.2019.4276

5 Adams, C. M., Tancredi, D. J., Bell, J. F., Cats, S. L., & Romano, P. S. (2019). Associations between home injury falls and prior hospitalizations in community dwelling older adults; A population case-crossover study. *Elsevier.* https://doi.org/10.1016/j.injury.2019.11.035 0020-1383/

Subject: Fall Prevention

Rationale: Staff will understand and incorporate the Stop Elderly Accidents, Deaths, and Injuries (STEADI) toolkit into daily practice to help reduce incidence of patient falls.

Scope: Hospital providers (Doctors, Physician Assistants, Nurse Practitioners)

Definitions: Fall: inadvertently coming to rest on a lower level or the ground, not due to an external event to which any person is vulnerable or due to an acute overwhelming event (such as stroke, loss of consciousness, or seizure).[6]

Assisted fall: When a staff member intervenes to ease or minimize the patients decent, or in some means attempts to break the patient's fall.[6]

Equipment: Center for Disease Control (CDC) provided:

- STEADI Fall Educational Program Knowledge Assessment
- STEADI Empowering Healthcare Providers to Reduce Fall Risk
- CDC STEADI Algorithm for Fall Risk Screening, Assessment, and Intervention
- STEADI Preventing Falls in Older Patients: Provider Pocket Guide

Policy: All healthcare providers will complete annual education on STEADI toolkit and correlating pre- and post-knowledge assessment. Prior to discharge for all patients 65 years and older the healthcare providers will complete the STEADI assessment with the patient. Based on the STEADI assessment score, the healthcare provider will incorporate correlating interventions before the patient is discharged from the healthcare setting.

Procedure:

I. Educational Program
   a. Doctors, Physician Assistants, and Nurse Practitioners will complete annual educational module.
      i. Prior to educational module each participant will complete Pre-Knowledge assessment, STEADI Fall Educational Program Knowledge Assessment.
      ii. Each participant will review the pre-recorded educational module STEADI Empowering Healthcare Providers to Reduce Fall Risk.
      iii. Post educational module the participants will complete the Post-Knowledge assessment, STEADI Fall Educational Program Knowledge Assessment.
   b. Staff will be provided with the following handouts:
      i. CDC STEADI Algorithm for Fall Risk Screening, Assessment, and Intervention
      ii. STEADI Preventing Falls in Older Patients: Provider Pocket Guide

II. Assessment
   a. Healthcare providers will assess all patients 65 years of age and older according to the STEADI fall risk assessment
      i. Screen For Fall risk:
         1. Have you fallen in the past year?
         2. Do you feel unsteady when standing of walking?
         3. Are you worried about falling?

i. Assess at risk patients to identify their specific fall risk factors
    1. Assess gait disorders using the following balance, strengths, and gait assessments
        a. Timed Up and Go (TUG) test
        b. 30-second Chair Stand Test
        c. 4-Stage Balance Test
    2. Assess medications to identify those that increase fall risk
    3. Measure orthostatic blood pressure
    4. Check visual acuity
    5. Assess feet and footwear
    6. Assess vitamin D intake
    7. Identify commodities that may increase fall risk

II. Intervention
- a. During Hospitalization
    - i. Refer to Physical Therapy for balance and gait training to assess the potential need for gait aid.
    - ii. Evaluate medications to reduce or eliminate those that potentially increase fall risk
    - iii. Assess and manage chronic conditions
    - iv. If deficient in vitamin D, recommend supplementation
    - v. Educate patient and caregiver/family about fall risk and create personalized fall prevention care plan
- b. For Discharge
    - i. Refer to community fall prevention programs that aid with balance and gait exercises
    - ii. Refer to occupational therapy for home safety assessment
        1. If occupational therapy assessment is not available, review potential home fall hazards with patient and family
    - iii. Refer to physical therapy if recommended by inpatient physical therapy
    - iv. Ensure all patients have follow-up care plan in discharge summary and provide education for patient to share with their primary care provider.

III. Quality Improvement
- a. Any falls within the hospital is reported on the event report form per policy (insert agencies policy here).
- b. All falls are monitored on a continuous basis and tracked weekly and monthly as number of falls per patient days. (To be updated per agency policy/procedure)
- c. Policy expert/fall committee will review healthcare providers understanding based on pre- and post-knowledge assessment to verify healthcare provider understanding.
- d. Policy expert/fall committee will assess healthcare providers comfort with STEADI toolkit based on pre- and post-knowledge assessment. Any trends noted requiring action plan will be determined.

References:

Centers for Disease Control and Prevention. (n. d.). *STEADI older adult fall prevention*. https://www.cdc.gov/steadi/index.html 6(Phelan et al., 2015).

Phelan, E. A., Mahoney, J. E., Voit, J. C., & Stevens, J. A. (2015). Assessment and management of fall risk in primary care settings. *The Medical clinics of North America*, *99*(2), 281–293. https://doi.org/10.1016/j.mcna.2014.11.004

Appendices I: Expert Evaluation Form

Policy Proposal Evaluation

STEADI Fall Toolkit

Please fill out the following questions with your opinion:

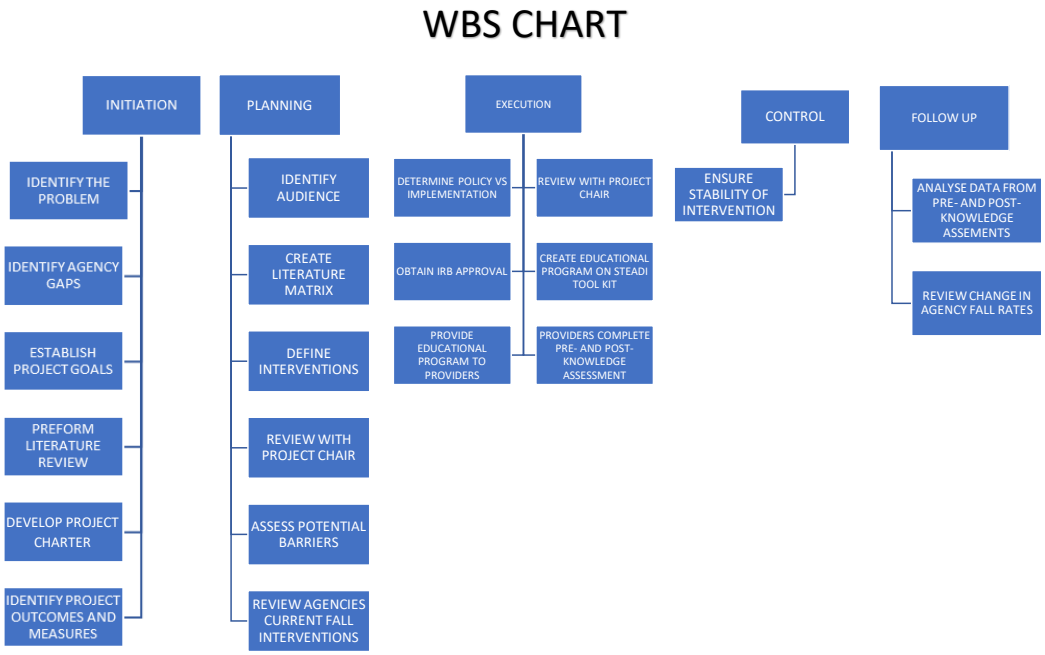
1. Did you like the policy, please explain your answer.

2. Was the content valuable? Please explain why.

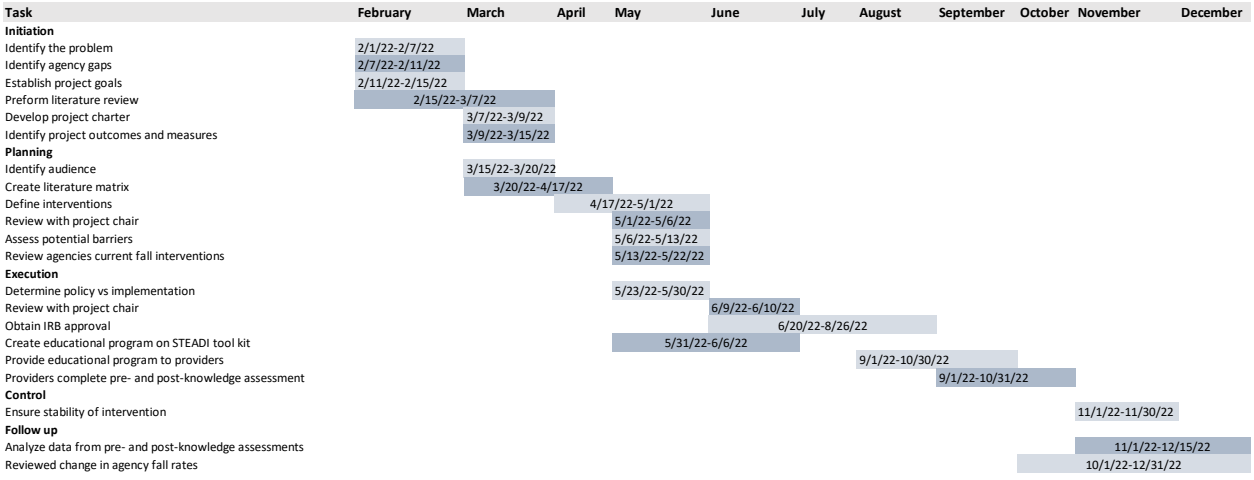
3. What changes or recommendations would you suggest to improve this policy recommendations?

4. Would you support your agency implementing this policy?

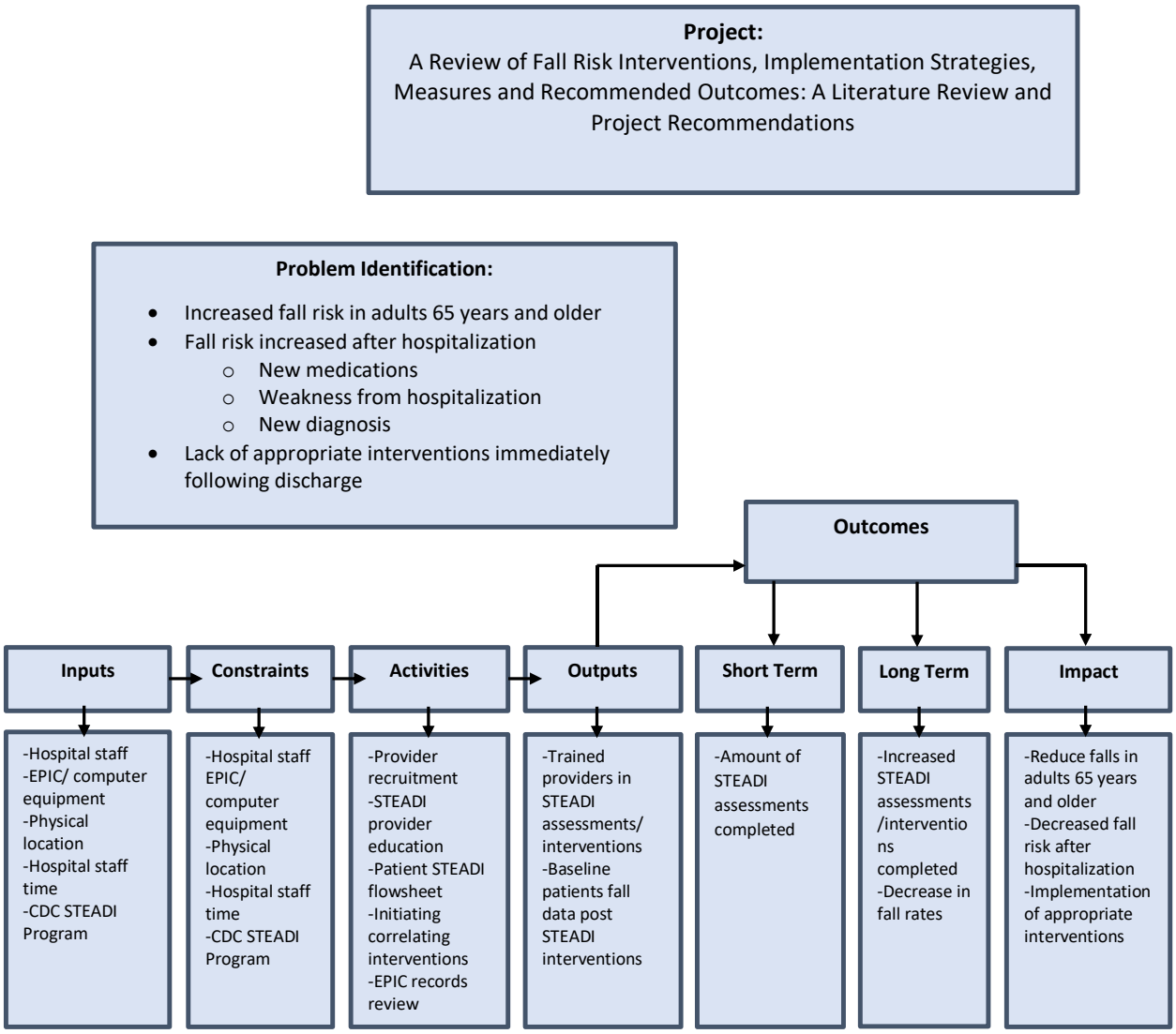
Appendices J: WBS Chart



Appendices K: GANNT Chart



Appendices L: Logic Model



Appendices M: Communication Matrix

Attendees Name	Title	Email	Phone
Tristin Dutton	Student	tdutton@css.edu	320-291-8874
Dr. Kemnitz	Project Chair	ckemnitz@css.edu	218-391-2978

Date of Meeting	Topic	Owner
2/24/22	Review proposed project topics and potential key search terms	Tristin Dutton
3/18/22	Search terms, literature review, PICOT question	Tristin Dutton
4/1/22-4/30/22	Emails back and forth regarding recommendations on Literature Review	Tristin Dutton
6/2/22	Peer feedback on individual and group projects	Dr. Kemnitz
6/9/22	Goals and Outcomes	Tristin Dutton
7/12/22	Review readiness for IRB	Tristin Dutton
9/16/22	Policy review	Tristin Dutton

Date of Meeting	Action	Action to be taken by	Date to be actioned by
2/24/22	Finalize project topic	Tristin Dutton	2/28/22
3/18/22	Create more in-depth literature review	Tristin Dutton	3/31/22
4/1/22-4/30/22	Update literature review	Tristin Dutton	4/30/22
6/2/22	Improve guiding theories	Tristin Dutton	6/9/22
6/9/22	Create SMART goals	Tristin Dutton	6/30/22
7/12/22	Make sure the focus of the paper is policy minded vs project.	Tristin Dutton	7/16/22
7/16/22	Okay to review policy by expert evaluators	Tristin Dutton	11/1/22

Appendices N: Project Measures

Outcome measure		
Completion of policy recommendation on implementing STEADI tool kit.	Complete literature review, literature synthesis, and policy proposal to review with expert evaluators.	Collect Data: Project leader Frequency of data collection: Once at completion of meeting with expert evaluators.
Process measures		
Review policy with all expert evaluators	In individual or group meetings with expert evaluators the project leader will review the policy proposal and the correlating educational program, assessment, and interventions.	Collect Data: Project leader Frequency of data collection: Once upon completion meetings with expert evaluators
All expert evaluators will provide suggestions and recommendations to improve the recommended policy.	Expert evaluators will complete the policy evaluation sheet (see Appendix I).	Collect Data: Project leader Frequency of data collection: Once upon completion meetings with expert evaluators
Expert evaluators will support proposed policy on implementing STEADI toolkit	Expert evaluators will complete the policy evaluation sheet (see Appendix I). Question 4 will review evaluators support or opposition to proposed policy.	Collect Data: Project leader Frequency of data collection: Once upon completion meetings with expert evaluators

Appendices O: Knowledge Assessment

STEADI Fall Educational Program Knowledge Assessment

Part One:

Multiple choice: Choose the correct answer.

1. **Question 1: In 2018 there were 36 million falls. If current fall rates continue and fall interventions are not implemented what is the projected falls for 2030?**
   a. 61 million falls
   b. 64 million falls
   c. 69 million falls
   d. 73 million falls
2. **Question 2: (Customizable Questions) What is the current fall rate at (enter agency's name here)? (answers vary pending on agencies data)**
   a. 306 falls a year
   b. 25 falls a month
   c. 3 falls a day
   d. 42 falls a quarter
3. **Question 3: How often should fall risk assessments be completed on patients 65 years or older?**
   a. At least once a year
   b. At least twice a year
   c. Anytime a patient falls
   d. At least one a year and anytime a patient falls
4. **Question 4: If a patient scores a five on the CDC's Stay Independent Questionnaire or has had a fall in the last year the patient is considered which of the following?**
   a. No Risk
   b. Low Risk
   c. Moderate Risk
   d. High Risk
5. **Question 5: Which is not a commonly used assessment in the STEADI toolkit to assess falls?**
   a. Timed Up & Go (TUG) test
   b. Humpty Dumpty Fall Scale (HDFS)
   c. 30- second Chair Stand test
   d. 4-stage Balance test

Part Two:

On the following questions use the Likert Scale to choose your agreement with the following statements.

(1) Strongly agree; (2) Disagree; (3) Neither agree; (4) Agree; (5) Strongly Agree

Question 1: A fall risk program reviewing a fall risk assessment would be beneficial for me

1 2 3 4 5

Question 2: You feel confident in assessing patients 65 years or older for fall risks prior to discharging from the hospital.

1 2 3 4 5

Question 3: You feel confident in implementing the fall risk interventions that correlates with the patient's potential fall risk.

1 2 3 4 5

Question 4: You understand the resources available for fall interventions at your agency

1 2 3 4 5

Appendices P: CDC STEADI Algorithm for Fall Risk Screening, Assessment, and Intervention

RESOURCE

Algorithm

for Fall Risk Screening, Assessment, and Intervention

As a healthcare provider, you are already aware that falls are a serious threat to the health and well-being of your older patients.

More than one out of four people 65 and older fall each year, and over 3 million are treated in emergency departments annually for fall injuries.

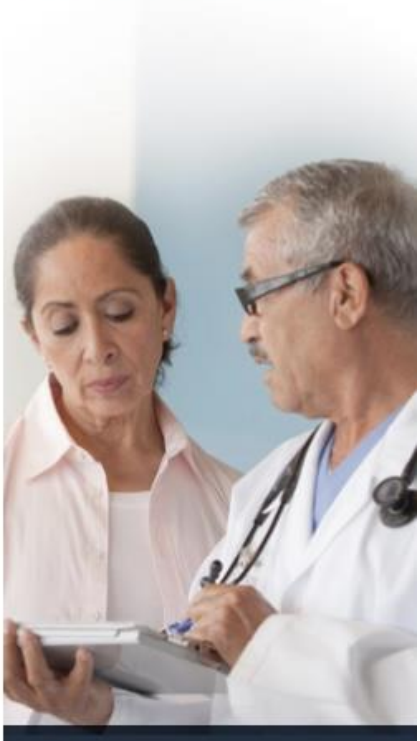
The CDC's STEADI initiative offers a coordinated approach to implementing the American and British Geriatrics Societies' clinical practice guideline for fall prevention. STEADI consists of three core elements: **Screen**, **Assess**, and **Intervene** to reduce fall risk.

The **STEADI Algorithm for Fall Risk Screening, Assessment, and Intervention** outlines how to implement these three elements.

Additional tools and resources include:

- Information about falls
- Case studies
- Conversation starters
- Screening tools
- Standardized gait and balance assessment tests (with instructional videos)
- Educational materials for providers, patients, and caregivers
- Online continuing education
- Information on medications linked to falls
- Clinical decision support for electronic health record systems

CDC's STEADI tools and resources can help you screen, assess, and intervene to reduce your patient's fall risk. For more information, visit www.cdc.gov/steadi.

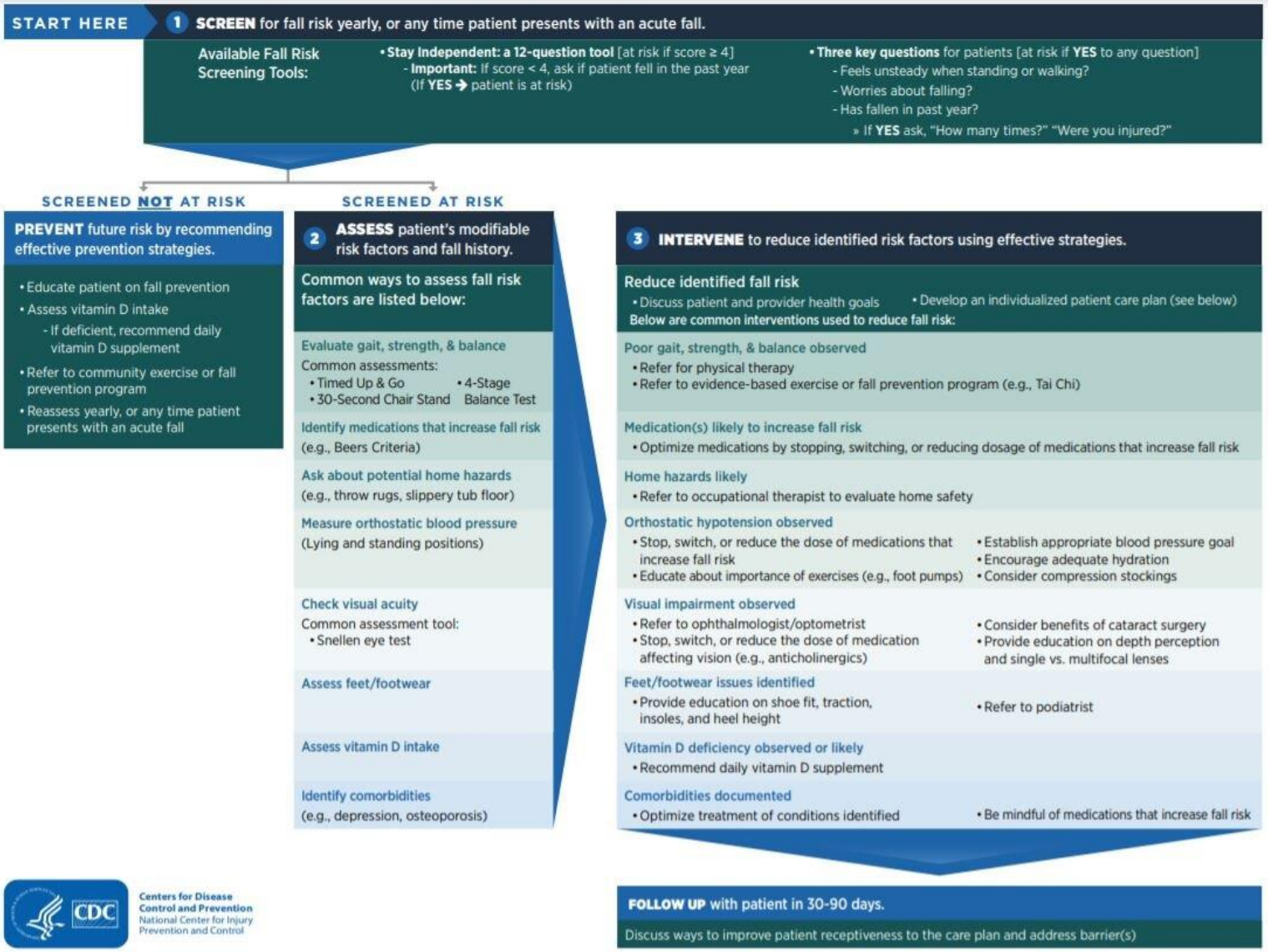


You play an important role in caring for older adults, and you can help reduce these devastating injuries.

Centers for Disease Control and Prevention
National Center for Injury Prevention and Control

2019

STEADI Stopping Elderly Accidents, Deaths & Injuries


START HERE
1 SCREEN for fall risk yearly, or any time patient presents with an acute fall.
Available Fall Risk Screening Tools:
• Stay Independent: a 12-question tool [at risk if score ≥ 4]
- Important: If score < 4, ask if patient fell in the past year (If YES → patient is at risk)
• Three key questions for patients [at risk if YES to any question]
- Feels unsteady when standing or walking?
- Worries about falling?
- Has fallen in past year?
» If YES ask, "How many times?" "Were you injured?"
SCREENED NOT AT RISK
PREVENT future risk by recommending effective prevention strategies.
• Educate patient on fall prevention
• Assess vitamin D intake
- If deficient, recommend daily vitamin D supplement
• Refer to community exercise or fall prevention program
• Reassess yearly, or any time patient presents with an acute fall
SCREENED AT RISK
2 ASSESS patient's modifiable risk factors and fall history.
Common ways to assess fall risk factors are listed below:
Evaluate gait, strength, & balance
Common assessments:
• Timed Up & Go
• 30-Second Chair Stand
• 4-Stage Balance Test
Identify medications that increase fall risk
(e.g., Beers Criteria)
Ask about potential home hazards
(e.g., throw rugs, slippery tub floor)
Measure orthostatic blood pressure
(Lying and standing positions)
Check visual acuity
Common assessment tool:
• Snellen eye test
Assess feet/footwear
Assess vitamin D intake
Identify comorbidities
(e.g., depression, osteoporosis)
3 INTERVENE to reduce identified risk factors using effective strategies.
Reduce identified fall risk
• Discuss patient and provider health goals
• Develop an individualized patient care plan (see below)
Below are common interventions used to reduce fall risk:
Poor gait, strength, & balance observed
• Refer for physical therapy
• Refer to evidence-based exercise or fall prevention program (e.g., Tai Chi)
Medication(s) likely to increase fall risk
• Optimize medications by stopping, switching, or reducing dosage of medications that increase fall risk
Home hazards likely
• Refer to occupational therapist to evaluate home safety
Orthostatic hypotension observed
• Stop, switch, or reduce the dose of medications that increase fall risk
• Educate about importance of exercises (e.g., foot pumps)
• Establish appropriate blood pressure goal
• Encourage adequate hydration
• Consider compression stockings
Visual impairment observed
• Refer to ophthalmologist/optometrist
• Stop, switch, or reduce the dose of medication affecting vision (e.g., anticholinergics)
• Consider benefits of cataract surgery
• Provide education on depth perception and single vs. multifocal lenses
Feet/footwear issues identified
• Provide education on shoe fit, traction, insoles, and heel height
• Refer to podiatrist
Vitamin D deficiency observed or likely
• Recommend daily vitamin D supplement
Comorbidities documented
• Optimize treatment of conditions identified
• Be mindful of medications that increase fall risk
FOLLOW UP with patient in 30-90 days.
Discuss ways to improve patient receptiveness to the care plan and address barrier(s)
CDC
Centers for Disease Control and Prevention
National Center for Injury Prevention and Control

Appendices Q: STEADI Preventing Falls in Older Patients: Provider Pocket Guide

Talking With Your Patients About Falls

- Help patients understand their own unique fall risk.
- Educate patients on their modifiable risk factors and corresponding fall prevention strategies.
- Emphasize that fall prevention can help them remain independent.
- Discuss with patients which strategies they might be willing to do.
- Work with patients and caregivers to develop a plan for fall prevention.

STEADI Resources for Your Patients

Available patient-friendly brochures:

- Stay Independent
- Postural Hypotension: What it is & How to Manage it
- Check for Safety
- What YOU Can Do to Prevent Falls

Key Facts About Falls

- One in four older adults age 65+ falls every year.
- Falls are the leading cause of injury deaths for older adults.
- Many patients who have fallen do not bring it up at medical appointments, so providers need to ask.

Each year, ask your older patients:

- Have you **fallen in the past year?**
- Do you feel **unsteady** when standing or walking?
- Do you **worry** about falling?

For more patient and provider resources, visit www.cdc.gov/steadi.

CDC Centers for Disease Control and Prevention
National Center for Injury Prevention and Control

2019

POCKET GUIDE

Preventing Falls in Older Patients

STEADI
Stopping Elderly Accidents, Deaths & Injuries

STEADI Algorithm for Fall Risk Screening, Assessment, and Intervention among Community-Dwelling Adults 65 years and older

START HERE — **1 SCREEN** for fall risk yearly, or any time patient presents with an acute fall.

Available Fall Risk Screening Tools:

- **Stay Independent: a 12-question tool** (at risk if score ≥ 4)
  Important: If score < 4, ask if patient fell in the past year (If **YES** → patient is at risk)
- **Three key questions** for patients (at risk if **YES** to any question)
  Feels unsteady when standing or walking?
  Worries about falling?
  Has fallen in past year?
  » If **YES** ask, "How many times?" "Were you injured?"

SCREENED NOT AT RISK — **PREVENT** future risk by recommending effective prevention strategies.

- Educate patient on fall prevention
- Assess vitamin D intake
  If deficient, recommend daily vitamin D supplement
- Refer to community exercise or fall prevention program
- Reassess yearly, or any time patient presents with an acute fall

SCREENED AT RISK — **2 ASSESS** patient's modifiable risk factors and fall history.

Common ways to assess fall risk factors are listed below:

Evaluate gait, strength, & balance	Common assessments: • Timed Up & Go • 30-Second Chair Stand • 4-Stage Balance Test
Identify medications that increase fall risk	(e.g., Beers Criteria)
Ask about potential home hazards	(e.g., throw rugs, slippery tub floor)
Measure orthostatic blood pressure	(Lying and standing positions)
Check visual acuity	Common assessment tool: • Snellen eye test
Assess feet/footwear	
Assess vitamin D intake	
Identify comorbidities	(e.g., depression, osteoporosis)

3 INTERVENE to reduce identified risk factors using effective strategies.

Reduce identified fall risk
- Discuss patient and provider health goals
- Develop an individualized patient care plan (see below)

Below are common interventions used to reduce fall risk:

Poor gait, strength, & balance observed	• Refer for physical therapy • Refer to evidence-based exercise or fall prevention program (e.g., Tai Chi)
Medication(s) likely to increase fall risk	• Optimize medications by stopping, switching, or reducing dosage of medications that increase fall risk
Home hazards likely	• Refer to occupational therapist to evaluate home safety
Orthostatic hypotension observed	• Stop, switch, or reduce the dose of medications that increase fall risk • Educate about importance of exercises (e.g., foot pumps) • Establish appropriate blood pressure goal • Encourage adequate hydration • Consider compression stockings
Visual impairment observed	• Refer to ophthalmologist/optometrist • Stop, switch, or reduce the dose of medication affecting vision (e.g., anticholinergics) • Consider benefits of cataract surgery • Provide education on depth perception and single vs. multifocal lenses
Feet/footwear issues identified	• Provide education on shoe fit, traction, insoles, and heel height • Refer to podiatrist
Vitamin D deficiency observed or likely	• Recommend daily vitamin D supplement
Comorbidities documented	• Optimize treatment of conditions identified • Be mindful of medications that increase fall risk

FOLLOW UP with patient in 30-90 days. — Discuss ways to improve patient receptiveness to the care plan and address barrier(s)

Appendices R: Updated Policy Proposal

Policy Recommendation for Reducing Patient Falls During the Transition of Care

One of the many goals of the Office of Disease Prevention and Health Promotion (ODPHP) for Healthy People 2030 is to reduce fall-related deaths among adults over age 65 (IVP-08).[1] In 2019, there were 66.3 deaths per 100,000 people, which increased from 64.4 deaths in 2018.[1] The ODPHP's goal is to reduce fall-related deaths to 63.4 deaths per 100,000 individuals.[1]

After discharging from an acute care setting patients are at an increased risk for falls. The average fall rate in the general older community is 30% with 10% of falls ensuing in serious injury, compared to older adults recently discharge from the hospital fall rates increase to 40% in the six-month time frame after hospitalization and 54% of those falls resulting in serious injuries.[2]

Roughly 40-60% of falls result in substantial fractures, lacerations, or traumatic brain injuries.[3] Falls can be detrimental to individuals by potentially triggering a vicious cycle of decreased physical activity, increased risk of subsequent falls, deconditioning, depression, functional decline, and repeat hospitalizations.[3] The risk for falls are often enhanced by disabilities, functional limitation, chronic illnesses, or cognitive impairment.[4] Medications, such as antidepressants, anticonvulsants, benzodiazepines, sedative hypnotics, and neuroleptics, are common medications associated with increased risk for falls.

There is an increased need for bridging the gap between patients discharging from the hospital and following up with a provider. This gap can be a vulnerable time for patients creating an increased risk for patient falls due to newly diagnosis, increased weakness from hospital stay, and new medications.[5] By having the discharging provider implement the Stopping Elderly Accidents, Deaths, and Injuries (STEADI) fall assessment prior to patients discharging home, there can be an increase in the continuity of care for patients during their transition from the hospital to home, which can help decrease the amount of falls patients have following hospitalization. The STEADI toolkit proves to be the most promising to help prevent falls in an outpatient setting due to the interventions associated with the differing fall risk levels.

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1 Office of Disease Prevention and Health Promotion. (2020). *Injury Prevention*. https://health.gov/healthypeople/objectives-and-data/browse-objectives/injury-prevention

2 Naseri, C., Haines, T. P., Etherton-Beer, C., McPhail, S., Morris, M. E., Flicker, L., Netto, J., Francis-Coad, J., Lee, D. A., Shorr, R., Hill, A. M. (2018). Reducing falls in older adults recently discharged from hospital: a systematic review and meta-analysis. *Age and Ageing, 47*(4), 512–519. https://doi.org/10.1093/ageing/afy043

3 Prabhakaran, K., Gogna, S., Pee, S., Samson, D., Con, J., & Latifi, R. (2019). Falling again? Falls in geriatric adults- risk factors and outcomes associated with recidivism. *Journal of Surgical Research,* 247, 66-76. https://doi.org/10.1016/j.jss.2019.10.041

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5 Adams, C. M., Tancredi, D. J., Bell, J. F., Cats, S. L., & Romano, P. S. (2019). Associations between home injury falls and prior hospitalizations in community dwelling older adults; A population case-crossover study. *Elsevier.* https://doi.org/10.1016/j.injury.2019.11.035 0020-1383/

Subject: Fall Prevention

Rationale: Staff will understand and incorporate the Stop Elderly Accidents, Deaths, and Injuries (STEADI) toolkit into daily practice to help reduce incidence of patient falls.

Scope: Hospital providers (Doctors, Physician Assistants, Nurse Practitioners)

Definitions: Fall: inadvertently coming to rest on a lower level or the ground, not due to an external event to which any person is vulnerable or due to an acute overwhelming event (such as stroke, loss of consciousness, or seizure).[6]

Assisted fall: When a staff member intervenes to ease or minimize the patients decent, or in some means attempts to break the patient's fall.[6]

Equipment: Center for Disease Control (CDC) provided:

- STEADI Fall Educational Program Knowledge Assessment
- STEADI Empowering Healthcare Providers to Reduce Fall Risk
- CDC STEADI Algorithm for Fall Risk Screening, Assessment, and Intervention
- STEADI Preventing Falls in Older Patients: Provider Pocket Guide

Policy: All healthcare providers will complete annual education on STEADI toolkit and correlating pre- and post-knowledge assessment. Prior to discharge for all patients 65 years and older the healthcare providers will complete the STEADI assessment with the patient. Based on the STEADI assessment score, the healthcare provider will incorporate correlating interventions before the patient is discharged from the healthcare setting.

Procedure:

I. Educational Program
   a. Doctors, Physician Assistants, and Nurse Practitioners will complete an annual educational module.
      i. Prior to the educational module each participant will complete Pre-Knowledge assessment, STEADI Fall Educational Program Knowledge Assessment.
      ii. Each participant will review the pre-recorded educational module STEADI Empowering Healthcare Providers to Reduce Fall Risk.
      iii. Post educational module the participants will complete the Post-Knowledge assessment, STEADI Fall Educational Program Knowledge Assessment.
   b. Staff will be provided with the following handouts:
      i. CDC STEADI Algorithm for Fall Risk Screening, Assessment, and Intervention
      ii. STEADI Preventing Falls in Older Patients: Provider Pocket Guide

II. Assessment
   a. Healthcare providers will assess all patients 65 years of age and older according to the STEADI fall risk assessment
      i. Screen For Fall risk:
         1. Have you fallen in the past year?
         2. Do you feel unsteady when standing or walking?

3. Are you worried about falling?

ii. Assess at risk patients to identify their specific fall risk factors
   1. Assess gait disorders using the following balance, strengths, and gait assessments
      a. Timed Up and Go (TUG) test
      b. 30-second Chair Stand Test
      c. 4-Stage Balance Test
   2. Assess medications to identify those that increase fall risk
   3. Measure orthostatic blood pressure
   4. Check visual acuity
   5. Assess feet and footwear
   6. Assess vitamin D intake
   7. Identify commodities that may increase fall risk

III. Intervention
   a. During Hospitalization
      i. Refer to Physical Therapy for balance and gait training to assess the potential need for gait aid.
      ii. Evaluate medications to reduce or eliminate those that potentially increase fall risk
      iii. Assess and manage chronic conditions
      iv. If deficient in vitamin D, recommend supplementation
      v. Educate patient and caregiver/family about fall risk and create personalized fall prevention care plan
   b. For Discharge
      i. Refer to community fall prevention programs that aid with balance and gait exercises
      ii. Refer to implanting agencies outpatient programs that aid in fall prevention or enhance individual balance and gait.
      iii. Refer to occupational therapy for home safety assessment
         1. If occupational therapy assessment is not available, review potential home fall hazards with patient and family
      iv. Refer to physical therapy if recommended by inpatient physical therapy
      v. Ensure all patients have a follow-up care plan in discharge summary and provide education for patients to share with their primary care provider.

IV. Quality Improvement
   a. Any falls within the hospital are reported on the event report form per policy (insert agencies policy here).
   b. All falls are monitored on a continuous basis and tracked weekly and monthly as the number of falls per patient days. (To be updated per agency policy/procedure)
   c. Policy expert/fall committee will review healthcare providers understanding based on pre- and post-knowledge assessment to verify healthcare provider understanding.
   d. Policy expert/fall committee will assess healthcare providers comfort with STEADI toolkit based on pre- and post-knowledge assessment. Any trends noted requiring an action plan will be determined.

e. An annual review will be conducted by policy exert/fall committee to endure policy is following the most relevant evidence based practice.

References:

Centers for Disease Control and Prevention. (n. d.). *STEADI older adult fall prevention*. https://www.cdc.gov/steadi/index.html 6(Phelan et al., 2015).

Phelan, E. A., Mahoney, J. E., Voit, J. C., & Stevens, J. A. (2015). Assessment and management of fall risk in primary care settings. *The Medical clinics of North America*, *99*(2), 281–293. https://doi.org/10.1016/j.mcna.2014.11.004