HBPC FALL PREVENTION AND MANAGEMENT TOOLKIT

James A. Haley VA Hospital Falls Clinic
VISN 8 Patient Safety Center of Inquiry

Tatjana Bulat, MD, CMD
Nina Ferguson, MD
Yvonne Friedman, MA, OTR/L, CRRC
Jason Lind, PhD
Linda Cowan, PhD, FNP-BC, CWS

Program Goal and Overview:

The purpose of this HBPC Fall Prevention and Management Toolkit is multifold. The primary goal is to share validated fall risk assessment screening tool options with Home Based Primary Care (HBPC). The toolkit presents three Fall Risk Assessment (FRA) Screening Tools which can be used to identify community dwelling adults at risk for fall. Additionally, the toolkit utilizes an algorithm, the HBPC Fall Prevention and Management Flowchart, to provide information regarding nationwide HBPC best practices regarding fall processes, HBPC Interdisciplinary Team (IDT) specific fall assessments and interventions, caregiver support, and audit and feedback ideas. The appendix offers educational and resource material suggestions for both the clinician and the caregiver or patient, highlights of identified nationwide HBPC best practices and along with IDT specific fall assessment and interventions, and instructive CPRS templates designed for modification.

Acknowledgements:

Special thanks to our national HBPC contributors without whom this toolkit would not be possible. Thank you to the multiple HBPC teams from across the country, the National HBPC Director, the National Falls Advisory Panel, and the GRECC for their kindness, generosity, and talent.

Pilot Sites
Tampa, FL
Lakeland, FL
Pasco, FL
Augusta, GA
Athens, GA
Aiken, GA
Tomah, WI

Best Practice Interviews
Tampa, FL
Portland, OR
Prescott, AZ
Philadelphia, PA
Seattle, WA

HBPC Fall Prevention and Management Toolkit Contents

Introduction

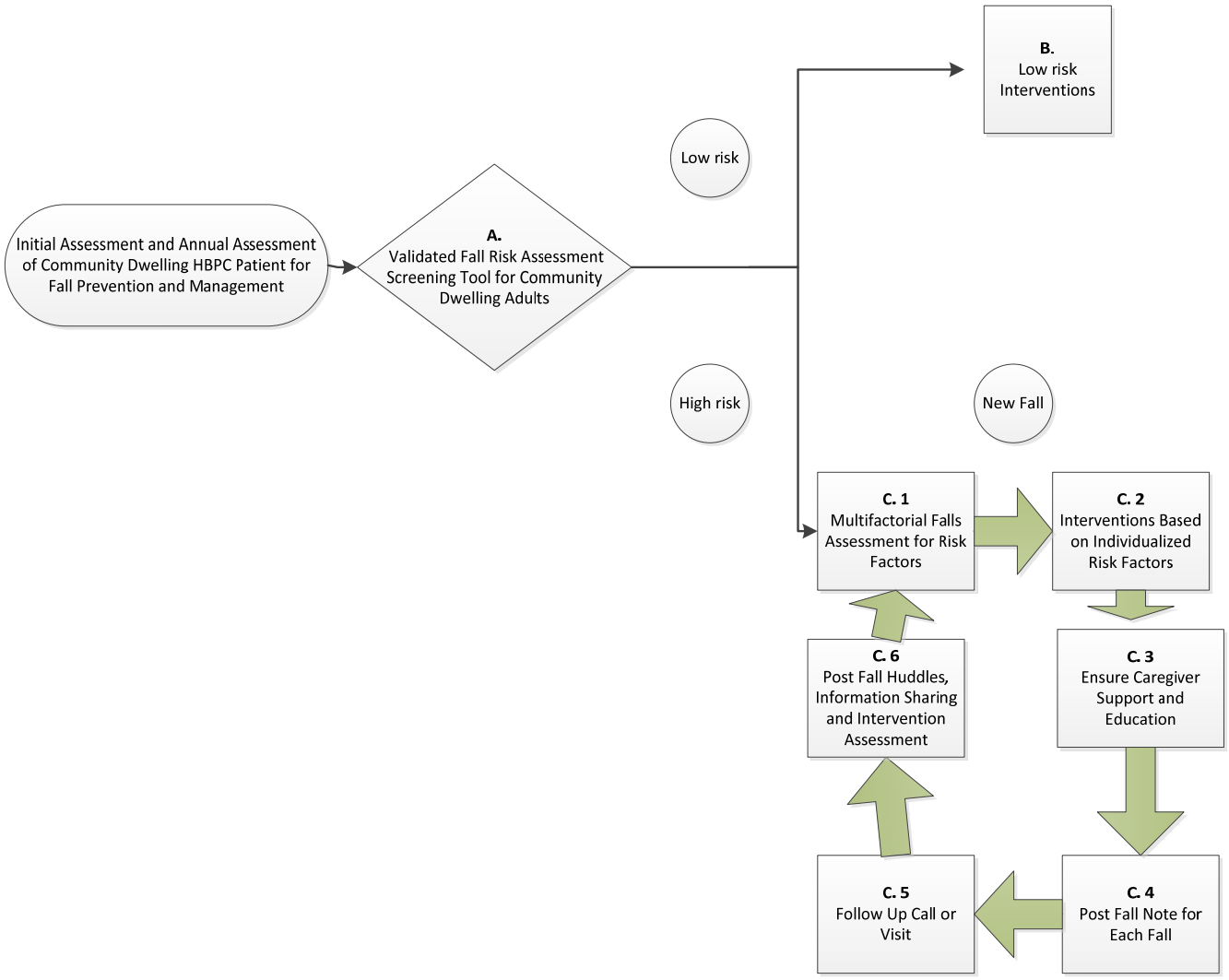
Home Based Primary Care (HBPC) clinicians know fall related injuries are not only common, but are also devastating for many patients. Falls affect their ability to live independently and are a significant cause of morbidity and mortality.

While not all falls can be prevented, there is evidence that assessing and addressing an individual's fall risk factors can reduce falls (Prevention of Falls in Older Persons AGS Clinical Practice Guideline 2010). **This toolkit was created in response to the need for a standardized and validated fall risk assessment screen within the HBPC community.** Many HBPC teams have been using fall risk assessment screening tools that are validated for inpatient populations, but not validated for patients in the home setting. The toolkit makes recommendations for three fall risk assessment screening tool options that are more specific for the HBPC population**. A validated fall risk screening tool for community dwelling adult patients can more accurately identify at risk HBPC patients, and gather helpful information for finding preventable causes of fall and injury for *all* screened patients beyond a mere numerical assessment.**

Additionally, the VISN 8 Patient Safety Center of Inquiry (PSCI) Project team acknowledges HBPC requests for information regarding multifactorial fall evaluation, caregiver support, and fall audit and feedback. The HBPC Fall Prevention and Management Flowchart was created as part of the toolkit to facilitate an action plan to address these concerns. The flowchart was developed by coupling literature review with interviews of several HBPC programs from across the nation, HBPC leadership, and GRECC for system process design. The toolkit was also reviewed by the VA Fall Advisory Committee prior to dissemination. The flowchart facilitates sharing identified nationwide HBPC best practices, HBPC IDT specific and general fall assessments and interventions, caregiver support, and audit and feedback systems. Due to the scope and length of the toolkit, many aspects were moved to the appendix.

HBPC teams are encouraged to try variations of this HBPC Fall Toolkit to fit their HBPC team's workflow.

HBPC Fall Prevention and Management Flowchart



HBPC Fall Prevention & Management Flowchart Summary (Labeled Parts A, B, & C.1-6)

A. Choose a validated population specific Fall Risk Screening Assessment Tool
MAHC-10, mJH FRAT, or CDC STEADI

B. Low Fall Risk Interventions- A fall prevention plan can be based on identified FRA screening factors, injury prevention strategies, and CDC STEADI interventions. Low-risk patients do NOT require a full multifactorial fall assessment. Home environment evaluation is still needed, and some HBPC take Orthostatic vitals and baseline TUG measurement for functional assessment.

C.1-6 High Fall Risk- A multifactorial fall assessment is indicated. A fall assessment and intervention plan for patients at high-risk can be based on AGS, CDC STEADI and added national best practices including VA National Patient Safety Center Fall Toolkit injury prevention assessment and caregiver support. Fall reporting audit and feedback information is also included.

* The algorithm for HBPC Fall Prevention and Management Flowchart was developed combining elements of nationwide HBPC best practice and leadership interviews, HBPC Handbook, validated fall risk screen tools, National Patient Safety Goal 9 requirements, National Patient Safety Center (NPSC) Fall Toolkit, AGS and CDC STEADI Multifactorial Fall Assessment recommendations.

2. HBPC Fall Prevention and Management Flowchart

The Home Based Primary Care (HBPC) Fall Prevention and Management Flowchart was created to share information regarding fall assessment with specific information regarding interdisciplinary team contributions, identified nationwide HBPC best practices, caregiver support, and audit and feedback systems. Additionally, the toolkit algorithm incorporates and refers to clinical guidelines from AGS (American Geriatrics Society) and CDC STEADI (Center for Disease Control & Prevention -Stopping Elderly Accidents, Deaths and Injuries). Injury risk evaluation was also added in accordance with the National Patient Safety Center (NPSC) Fall Toolkit. The flowchart is flexible, considering both the individualized nature of a multifactorial fall evaluation, and the different team compositions within HBPC interdisciplinary teams (IDT). The flexible design allows for various aspects to be utilized by IDT members depending on their scope of practice. Instructional CPRS templates are available in the appendix. The templates are comprehensive for educational purposes and designed to be modified.
(See page 6 for flowchart and summary)

Flowchart Component A -Validated Fall Risk Assessment Screening Tool Options for Community Dwelling Adults

A. Validated Fall Risk Assessment Screening Tool Options

Fall risk assessment (FRA) screening starts with the first day of meeting the patient for each team member. All IDT members should ask about falls and have knowledge regarding home environment hazards and caregiver education. A fall risk assessment screen is warranted during the initial patient assessment and during the annual patient assessment, and often after a fall is identified**.** There are several options for fall risk assessment screening tools that are validated, evidence-based, and accessible for use with the HBPC patient population of community dwelling adults.

After an extensive literature search and pilot testing, this HBPC Falls Toolkit recommends using one of the following:

- MAHC-10 (Missouri Alliance for Home Care -10 questions)
-CDC-STEADI (Center for Disease Control-Stopping Elderly Accidents, Deaths & Injuries)
-mjhFRAT (Modified John Hopkins Fall Risk Assessment Tool)

These three fall risk assessment screening tools can facilitate a process change from using a screening tool validated for hospitalized patients, to one validated for community dwelling adults. *See Appendix for Sample Templates with additional literature regarding FRA screen tools.*

Other identified tools include: FRA /Falls Risk Assessment Tool (Flemming), EFST Elderly Falls Screening Test (Cwikel); CFRSI Comprehensive Falls Risk Screening Instrument (Fabre); Fall-Risk Screening Test (Tromp); Personal Risk Factors Fall Prevention Checklist (Minnesota Safety Council). *See references section of the Appendix for more details.*

The flowchart divides the HBPC patient population in to low and high-risk for falls after using a validated screen (MAHC-10, mjhFRAT, or CDC STEADI)

Flowchart Component B – Low Fall Risk Interventions Examples

Low Risk Intervention Examples:
1. Patient and Caregiver education about falls, and addressing identified FRA Screen Tool findings.
2. Include a standard home environmental assessment from each IDT member. -NCPS Fall Toolkit Fall Prevention at Home Brochure - https://www.cdc.gov/steadi/pdf/check_for_safety_brochure-a.pdf
3. Medication review for fall risk & injury risk, and consider Vitamin D +/- Calcium.
4. Consider orthostatic vitals on all new admissions & annual assessment patients.
5. Consider measurable functional assessment on all new admissions & annual. assessment patients (Such as TUG, 4 stage Balance Test, 30 Second Chair Stand)
6. Referral or education regarding strength and balance exercises and activity. (Community or Home exercises)
7. Consider osteoporosis assessment & treatment. *(See appendix or VA National Fall Toolkit)*
*Consider **O2-AGE**: (**O**rthostatic vitals and **O**steoporosis assessment, **A**lcohol consumption, **G**ait and balance test, **E**nvironment assessment)

B. *Both Low and High Fall Risk Patients have Risk*

HBPC patients considered low risk, would still be considered at risk for fall and may have interventions based on identified FRA screen factors, injury prevention strategies, HBPC best practices and CDC STEADI low risk interventions recommendations.

Ideal use of the required FRA Screen is not to simply record the number, but to analyze which components of the FRA Screen are positive and modify treatment plans accordingly for a more patient centered approach.

The CDC nonspecific recommendations for low risk patients include: education about falls (see addendum for educational materials); consideration for Vitamin D +/- Calcium; and referring for strength and balance exercise (community exercise or community fall prevention program).

In addition to the CDC STEADI recommendations, consider assessing for injury risk in low risk patients, such as screening for osteoporosis. Injury prevention is in alignment with identified HBPC best practices and NPSQ 09.02.01. *See the IDT Involvement Opportunities section of the appendix, and the VA NPSC Falls Toolkit website for more information regarding evaluation for osteoporosis and injury risk.*

Note that low risk patients do **NOT** need a multifactorial fall evaluation.

-It is an identified nationwide HBPC best practice to check orthostatic vitals on all new patient admissions and annual assessments, and monitor functional assessment yearly with measurable exams such as TUG, even in low-risk patients.
Consider **O2-AGE**: (**O**rthostatic vitals and **O**steoporosis assessment, **A**lcohol consumption, **G**ait and balance test, **E**nvironment assessment)

-Additionally, HBPC Pharmacist best practice includes evaluating all patients for medications which may increase fall risk and injury risk with each fall notification, and with each quarterly review.

National VA Falls Toolkit website:
https://www.patientsafety.va.gov/professionals/onthejob/falls.asp

CDC STEADI website: https://www.cdc.gov/steadi/index.html

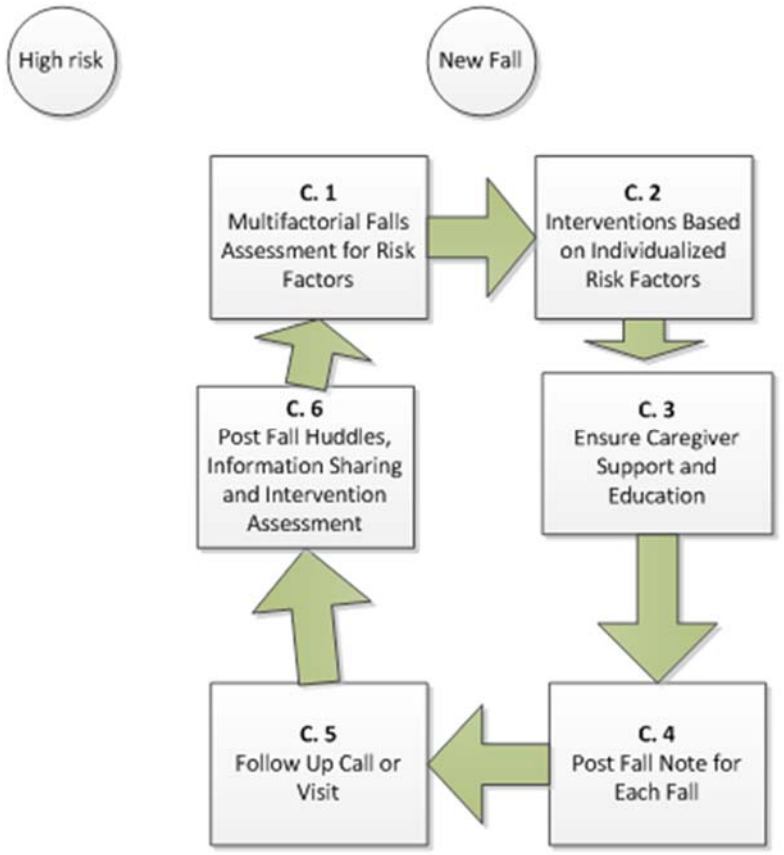
Flowchart Components C.1-C.6 Summary:

For patients at high-risk, a multifactorial fall risk assessment is indicated with customized interventions based on an individualized risk assessment. A full multifactorial fall risk assessment includes many aspects of a detailed geriatric assessment. Included in this report is a list of assessments and interventions to include with suggestions for various team member contributions. The key to developing a successful intervention program is to customize the treatment rendered based on an individual's specific fall risk factors.

-Keep in mind that identifying these risks and implementing interventions may require involvement of the entire team plus the patient and caregiver.

-It is recommended that IDT Members that make home visits ask about falls and complete and document a home environment assessment.

- Regular fall data feedback to the team for intervention analysis is being accomplished at various HBPC in a variety of ways including; IDT meeting fall line items, post-fall huddles, power-point presentations, process improvement projects with both posters and publications.



HBPC Prevention and Management Flowchart Components C.1-C.6 Cycle

C. Multifactorial IDT Fall Assessment

C.1 Multifactorial Fall Assessment for Risk Factors

Validated multifactorial fall evaluations for geriatric patients include: AGS guidelines and CDC STEADI. We added HBPC best practices for both fall assessment and interventions, and for IDT Specific Contributions that are not all validated, but help unite team in fall prevention and management. Consider using aspects of the information below to fit the needs of your HBPC IDT and HBPC patients. The next section C.2 offers details on using Extrinsic and Intrinsic Risk Factors or the HELP acronym to link risk factors with interventions. Keep in mind the Joint Commission NPSG #9 when creating your HBPC Fall Program. *See page 20 for The Joint Commission and the Home Care National Patient Safety Goal #9 -(NPSG.09.02.01).*

HBPC Best Practices on Clinical Assessment Summary
▪ Use of a fall risk screening tool that is validated for the community dwelling adult population.
• Checking orthostatic vitals on all new admission patients, and during post fall evaluation assessments.
• Using a standardized and measurable functional assessment on all new patients such as the Timed Up and Go (TUG) test, 30 second chair stand, or 4-stage balance test - or document that the patient is bedbound.
• Injury risk assessment should be included in addition to fall risk assessment. Consider osteoporosis assessment, high risk medication evaluation, alcohol consumption, accident avoidance, ABCS Injury Risk
• Standardizing fall history elements. Consider **SPLAATT** (**S**ymptoms, **P**revious falls, **L**ocation, **A**ctivity and **A**lcohol, **T**iming and **T**rauma) and asking why they think the fall occurred.
• Adding "History of Fall" to the Active Problem List, if applicable.
• Utilizing a multifactorial fall assessment based on the AGS guidelines or CDC STEADI and adding injury prevention assessments, such as an evaluation for osteoporosis.
• Home environmental assessments by all IDT members. • Assessment of walking aids, assistive technologies, and protective devices as per scope of practice. • Using Motivational Interviewing to for encouragement.
• Consider **O2-PAGE** (**O**rthostatic vitals, **O**steoporosis risk, **P**hysical from Eye to Feet, **A**lcohol consumptions, Gait & Balance testing, Environmental Assessment
• Utilizing risk factor identification for possible interventions. • Consider **Extrinsic and Intrinsic Factors** or **HELP** (**H**ome hazards, **E**xercise and activity, **L**imit comorbidity, **P**harmacy evaluation). *See Flowchart C.2*
• *IDT templates available in Appendix using above Best Practices.*

IDT Member Opportunities Best Practices Summary
• Each IDT member asks about falls and inspects the home for potential environmental fall hazards. • https://www.cdc.gov/steadi/pdf/check_for_safety_brochure-a.pdf
• Utilizing a KT/OT/PT IDT member for valid fall risk screening tool, ADL/IADL, functional assessment, detailed home environmental assessment, prosthetic evaluation, fall history, and fall huddle leader. The assessment can be done on new patients, patients discussed at team meeting, as well as on addendums to post fall notes, and fall assessments.
• Utilizing a Nutritionist IDT member for assistance with hydration status, missed meals, Calcium/Vitamin D intake and alcohol use. This assessment can be done on each patient discussed at team meeting, as well as on addendums to post fall notes and fall assessments.
• Utilizing Mental Health providers and Social Workers to help with motivational interviewing, encouraging proper supervision, regular use of ambulatory assistive devices, and appropriate alcohol use.
• Utilizing a Pharmacist to assess for increased risk of both fall risk and injury risk (including Osteoporosis risk medications and Anticoagulation). Additionally, considering need for Vitamin D/Calcium. This assessment can be done on each patient discussed at team meeting, as well as addendum to post fall notes and fall evaluations. (Consider online CE course offering from CDC- SAFE Medication Review Framework from CDC:STEADI)
• All IDT can enter Post Fall Notification Note
• *IDT Template samples are included in the Appendix.*
• *Individual HBPC IDT member Best Practices charts available in the Appendix.*

-Additional details on IDT specific contributions and template suggestions divided by specialty are included in the appendix. The templates are for instructional and educational purposes and are designed to be modified based on individual HBPC team design and needs.

Recommended information regarding a full fall evaluation can be found using the AGS Fall Evaluation Guidelines, CDC STEADI Website, and the National Patient Safety Center VA Fall Toolkit.

-American Geriatric Society Fall Evaluation Guidelines

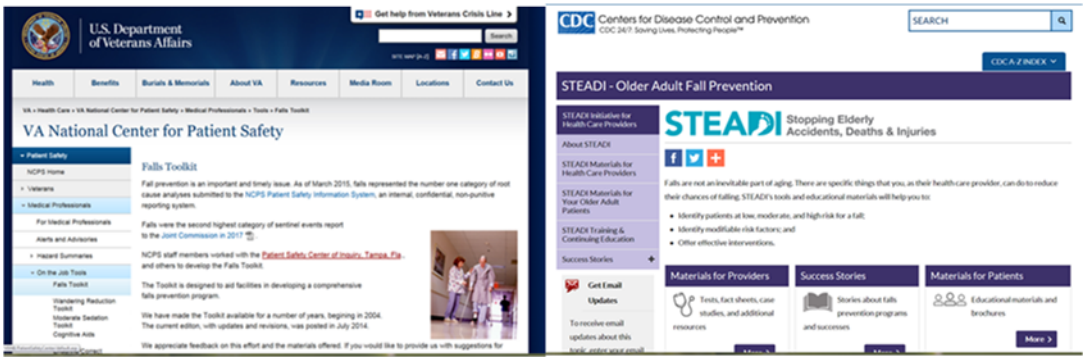
The AGS recommends a relevant medical history, physical examination, cognitive and functional assessment which includes: history of falls, medications, gait, balance and mobility testing, visual acuity, neurologic impairment assessment, muscle strength evaluation, heart rate and rhythm, postural hypotension assessment, feet and footwear assessment, and environmental hazards evaluation.

After a complete history and physical, assess and intervene based on the findings: minimize medications, provide individually tailored exercise programs, treat vision impairment including cataracts, manage postural hypotension, manage heart rate and rhythm home environment, provide education and information (AGS 2010). *See Appendix References for additional information.* https://www.aafp.org/afp/2010/0701/p81.pdf

-CDC STEADI

The CDC developed the Stopping Elderly Accidental Death and Injury (STEADI) fall risk screening, evaluation, and interventions toolkit with information that is helpful for both community clinical providers and for community dwelling patients. For providers, there are algorithms, pocket guides, and case studies. For patients, there are numerous educational handouts that meet health literacy standards. *See appendix for additional information under section regarding FRA Tools, websites, and educational materials* (www.cdc.gov/steadi)

National VA Falls Toolkit website:
https://www.patientsafety.va.gov/professionals/onthejob/falls.asp



C.2 Interventions Based on Individualized Risk Factors

Multifactorial Fall Assessment and Intervention: Using Intrinsic and Extrinsic Risk Factor categories or HELP prevent falls

Successful fall intervention programs customize the treatment rendered based on an individual's specific fall risk factors. Fall risk factors can be categorized as being either intrinsic or extrinsic risk factors. These classic risk factors can be listed separately, or organized under a mnemonic called HELP (Home Hazards, Exercise, Limit Comorbidity, and Pharmacy), which was created by the project team based on the recommendations

from the CDC STEADI, AGS guideline, NPSG.09.02.01 with **additional injury risk assessment added as a best practice** (such as ABCS, medication review, or osteoporosis check). Treatment interventions can be chosen based on identified risks and parts can be from all IDT members.

a. Intrinsic and Extrinsic Risk Factor Identification:

Below are risk factor divisions and treatment interventions that can be made into check boxes for a multifactorial assessment template.

INTRINSIC RISK FACTORS	
1.	Reduced Mobility, Muscle Weakness, Gait and Balance deficit
	a. Intervention: PT/OT/Tai Chi/Walking program/Community exercise program.
2.	Vision changes/low vision
	a. Intervention: Consult eye clinic
3.	Hypotension/Orthostatic
	a. Intervention: Adjust medications, assess fluid status, consider anti-hypotensive agent, referral to cardiology or neurology, provide patient informational handout from CDC STEADI
4.	Fear of falling and history of falls
	a. Intervention: Cognitive behavior therapy, Mental health consult, Motivational Interviewing, PT consult.
5.	Comorbidity: Pain, Cognitive Impairment, Incontinence, Hearing, Depression, CV (CAD, Syncope, Arrhythmia, Hypotension), CP (COPD), Neurologic (CVA, Seizure, Parkinson's Disease and Parkinson's Plus Disorders, vertigo, neuropathy), Feet, DJD, DM, thyroid
	a. Intervention: PCP optimize treatments or consult specialist.
6.	Injury Risk Assessment: Osteoporosis and Anticoagulation
	a. Intervention: Consider hip protectors or helmets, PCP optimize/consider pharmacologic treatments or consult specialist.

EXTRINSIC RISK FACTORS	
1.	Environmental/Home Hazards: Stair handrails, No grab bars in bathrooms, Dim Lights, Obstacles , Slippery/wet surfaces.
	a. Interventions: -Encourage proper ambulatory assist device -Use low bed, Pet safety information, hip protector use, helmet use, non-slip footwear -Clutter removal and throw rugs secured or removed -HISA Grant for modifications, if qualify
2.	Medications that increase risk of falling (Psychoactive medications,

	Antihistamines, Benzodiazepine, Anti-convulsant agents, Antidepressants, Muscle relaxers, Hypertensives, Anti-Parkinson agents, Analgesic, Antineoplastic, Hypoglycemic agents)
	a. Intervention: PCP adjust medications or consult specialist
3.	Medications that increase risk of injury (Adrenal glucocorticoids, Anticoagulants, PPIs, Anti-androgens, Antidepressants, Antipsychotics, etc.)
	a. Intervention: PCP adjust medications or consult specialist
4.	Increased risk of injury due to Osteoporosis risk factors, Anticoagulation, High-risk medications
	a. Intervention: Consider osteoporosis evaluation and treatment, Vitamin D/Ca+2 supplementation, Hip protectors, and/or helmets

Options may include using Intrinsic and Extrinsic Risk Factors **or** using the mnemonic HELP for risk factor identification and triggered interventions.

b. ***HELP for risk factor identification***

HELP Prevent Falls

H-E-L-P acronym with recommended guided interventions
Home Hazards, **E**xercise and Activity, **L**imit **C**omorbidity, and **P**harmacy review

H - Home and environmental hazards: (Extrinsic risk)
• Interventions:
• Foot wear education (Backless shoes and slippers, high heeled shoes, and shoes with smooth leather soles are examples of unsafe footwear that could cause a fall. Wear non-skid, rubber soled, low heeled shoes).
• Ambulatory assist device assessment and education, motivational interviewing,
• Pet safety education
• Prosthetic devices such as: Low bed, floor mats, hip protectors, helmets, reach sticks, grab bars inside and outside the tub or shower and next to the toilet, having raised toilet seats, adding railings on both sides of stairways and improving the lighting in their homes.
• Remove clutter, and provide room-by-room safety assessment and interventions.
• Some HBPC use the STEADI home evaluation checklist. • NCPS Fall Toolkit Fall Prevention at Home Brochure https://www.cdc.gov/steadi/pdf/check_for_safety_brochure-a.pdf
• Consider HISA Grant for modifications.

E - Exercise and Activity: (Intrinsic risk)
• Interventions:
• PT/OT, Tai Chi, Rehab, Walking program, Activity increased, Chair-stand home exercise handout from STEADI. • Focus on increasing leg strength, flexibility and improving balance, and that activity gets more challenging over time. • Motivational Interviewing.

L - Limit Comorbidity: (Intrinsic risk)
• Interventions: maximize treatment and consider consultations
1. Review and address fall risk screen positive findings (such as MAHC-10 Muscle weakness, Gait/Balance, Vision, H/o fall, # Comorbid conditions, Incontinence, Pain, Cognitive Impairment)
2. Vision -> consult eye clinic yearly. Single vision lenses are best.
3. Orthostatic Hypotension ->adjust medications, assess fluid status, limit alcohol, consider anti-hypotensive agent, referral to cardiology or neurology. CDC Brochure "Change Positions Slowly: Standing up slowly after lying or sitting" www.CDC.gov/STEADI
4. Fear of falling and history of falls, Depression -> Cognitive behavior therapy, Mental health consult Motivational Interviewing, PT consult. "What to do when you Fall" brochure from National VA Falls Toolkit website: https://www.patientsafety.va.gov/professionals/onthejob/falls.asp
5. Injury risk assessment (Such as Osteoporosis assessment, ABCS Injury risk)
6. Additional Comorbidity: Hearing loss, Pain, Cognitive Impairment, Incontinence, Hearing, Depression, CV (CAD, Syncope, Arrhythmia, Hypotension), CP (COPD), Neurologic (CVA, Seizure, Parkinson's Disease and Parkinson's Plus Disorders, vertigo, neuropathy), Podiatric issues, DJD, DM, Thyroid disorders, Anticoagulation, Osteoporosis and Osteopenia ->Optimize treatments and/or consult specialist

P – Pharmacy: (Extrinsic risk)
1. Medications that increase risk of *falling* (Psychoactive medications, Antihistamines, Benzodiazepine, Anti-convulsant agents, Antidepressants, Cholinesterase inhibitors, Muscle relaxers,

Hypertensives, Anti-Parkinson agents, Analgesic, Antineoplastic, Hypoglycemic agents)-> Taper and discontinue as tolerated
2. Medications that increase risk of *injury* (Adrenal glucocorticoids, Anticoagulants, PPIs, Anti-androgens, etc.)-> Tailor as tolerated
3. Consider Vitamin D/Ca+2 supplementation

D. Caregiver Support and Education

Flowchart Component C. 3 - Ensure Caregiver Support and Education

Successful prevention of fall programs include and involve patients and caregiver support. Surveyed caregivers and patients of Medical Foster Homes in Tampa indicated that they appreciated several aspects of HBPC post fall procedures.

-**Patients and caregivers like information regarding falls**: What to do after a fall, How to fall, How to get up from a *fall (See Appendix for handouts from NPSC VA Falls Toolkit website:* https://www.patientsafety.va.gov/professionals/onthejob/falls.asp).

-**Additionally, they appreciate calls and visits from IDT** to discuss interventions in medical care, referrals, and medications. They especially found helpful Kinesio-Therapist evaluations of their home for modifications, additional prosthetic devices, or recommendations for gait, balance and strengthening with PT. Several articles support using a therapist for prevention of falls due to home environment issues. Mental Health Professionals and Social Work involvement for support and education was also appreciated by the caregivers and patients.

-Occasionally, caregivers and patients feel confused or overwhelmed by having many fall interventions at once. For example, being told to practice safety and supervision with a possible decrease of some activities, and also being told to practice strength and balance, which requires increased activity.

-Requesting multiple home modifications at once can cause resistance. Hearing the information using motivational interviewing from several different IDT members may help with movement towards making change or changes. See appendix page 51 for additional Motivational Interviewing information. The VA HISA Grant option helps with home modifications for some patients.

-Support caregiver efforts to report falls. Falls can make both the patient and the caregiver feel ashamed and less likely to report. Caregivers that feel strongly that supervision, and assisted falls may prevent fall with injury are more prone to self-injury and feelings of guilt when the patient has a fall. Consider offering them support, mental health consultation, and the brochure "What to do after a fall" from the NPSC Fall Toolkit.

Caregiver Support and Education Best Practices
• "Call If You Fall"- magnets or forms with HBPC phone number to encourage fall reporting.

• www.CDC.gov/STEADI website for educational materials such as: Home fall prevention checklist, or other Home evaluation checklist like the Home Assessment Profile (HAP) or Home Falls and Accidents Screening Tool (HOME FAST) See Appendix for links
• Focused Caregiver Educational handouts: Medical Foster Home (MFH) caregivers liked the PSCI handouts "What to do after a fall" and " Fall Prevention at Home". National VA Falls Toolkit website: https://www.patientsafety.va.gov/onthejob/falls.asp
• Discuss with caregiver their ideas regarding fall prevention with Motivational Interviewing Techniques
• Educational materials for caregiver support include: • NPSC: How to fall, How to get up from a fall, What to do after a fall, Osteoporosis Risk, Post fall instructions, Call if you fall information, Use of hip protectors, NCPS Fall Toolkit Fall Prevention at Home Brochure National VA Falls Toolkit website: https://www.patientsafety.va.gov/onthejob/falls.asp • CDC: Four things to prevent falls, Protect your loved ones from falling, Stay independent brochure Home safety https://www.cdc.gov/steadi/pdf/check_for_safety_brochure-a.pdf CDC STEADI website: www.CDC.gov/STEADI

E. Audit and Feedback Systems

Flowchart Component C. 4 - Post Fall Note for Each Fall

Strong communication systems along with consistent audits and feedback are vital to a comprehensive fall program.

-To facilitate audit and feedback, a **post fall note for each known fall** should be generated and shared with the IDT for review. Consider addendums to an initial post fall notification note from team members for improved communication and documentation. In Tampa, the post fall notification note was edited to remove aspects that may be viewed as punitive by MFH caregivers. The title was changed from Fall Event Incident Report, and a question specifically asking if the patient was supervised was removed.

-As many patients and caregivers do not call to report after every fall**, each IDT member should inquire about falls at every visit and assess for home hazards**. Some HBPC teams give out "Call if you Fall" papers or magnets for the refrigerators to facilitate reporting.

Additionally, **History of Fall, can be added to the CPRS problem list,** if not already added.

Flowchart Component C. 5 - Follow up Call or Visit to Review for Additional Risk Factors

The team members **should use clinical decision skills to decide whether a call or visit is needed** to discover new injuries or additional fall risk factors. Keep in mind that

anti-coagulated patients are at particularly high-risk for injury. Time frames for follow-up visits should be discussed with the HBPC team physician. **Some HBPC discuss falls at weekly IDT meetings and utilize a checklist for prevention items** (such as from the CDC).

Flowchart Component C.6 - Post Fall Huddles, Information Sharing and Intervention Assessment

Regular post fall huddles are recommended for data sharing to discuss success or failure of interventions and to brainstorm new ideas. **The National Patient Safety Goal regarding falls includes having a process for fall data evaluation with audit and feedback to transform the data into actionable information**. The project team found that different HBPC programs use different criteria for fall and injury reporting. Some report all falls, some report only falls witnessed during the home visit, some report only injurious falls indicating that there is not a standardized data collection procedure. Most track fall related hospitalizations rates in HBPC patients, such as to EPIR or currently JPSR.

Having a separate fall report with severity indicated for each known fall would provide the most information. The fall report should be a standardized template in CPRS and shared with all the IDT to assist with fall interventions, and the Fall Coordinator via an alert. Consider utilizing a KT/OT/PT as Fall Coordinator. An integrated decision for planned fall risk interventions is a goal. Robust falls data collection and dissemination of the findings to the team on a regular basis for feedback is paramount for a successful fall program**. Best practices include: fall huddles during IDT meetings, new falls line item on IDT meeting agenda, documentation of hospitalized and injurious falls, and separate fall notes for each individual fall.**

For future recommendations regarding data collection and dissemination, creating a formal mechanism of communicating fall and injury rates (audit and feedback) to the HBPC staff to bridge the disconnect between data collection and transformation of it into useful and actionable information is recommended. Some HBPC programs use power point presentations and process improvement posters to share aggregate data with the team.

Audit and Feedback Best Practices
• Post Fall Note in the electronic health record for each fall, with addendums from various IDT members.
• Include fall severity and triage on each Post Fall Note. Most HBPC teams track fall- related hospitalizations rates. Examples: EPRP (External Peer Review Program) or JPSR (Joint Patient Safety Report).
• Regular Fall Huddles and Data Reporting back to frontline staff for intervention assessment.

The HBPC Fall Assessment Flowchart sections C.1-C.6 for high risk patients cycles continuously with new falls and with annual recertification of the patient. *Please see the Appendix for additional information such as templates, IDT charts, best practices and educational materials*.

Fall prevention and management is continually improving to become more patient centered and value added. We hope parts of this toolkit will help your HBPC program implement a fall program that is in alignment with patient goals and with TJC. Using a validated FRA screen is the first step. Thank you and all best to your HBPC team for a successful Fall Prevention and Management Program.

The Joint Commission and the Home Care National Patient Safety #9

Reduce the risk of patient harm resulting from falls.
Reduce the risk of falls.

-National Patient Safety Goal (NPSG.09.02.01):

Falls account for a significant portion of injuries in hospitalized patients, long term care residents, and home care recipients. In the context of the population it serves, the services it provides, and its environment of care, the organization should evaluate the patient's risk for falls and take action to reduce the risk of falling as well as the risk of injury, should a fall occur. The evaluation could include a patient's fall history; review of medications and alcohol consumption; gait and balance screening; assessment of walking aids, assistive technologies, and protective devices; and environmental assessments.

--Rationale for NPSG.09.02.01--

1. Assess the patient's risk for falls.
2. Implement interventions to reduce falls based on the patient's assessed risk.
3. Educate staff on the fall reduction program in time frames determined by the organization.
4. Educate the patient and, as needed, the family on any individualized fall reduction strategies.
5. Evaluate the effectiveness of all fall reduction activities including assessment, interventions and education. Note: Examples of outcome indicators to use in the evaluation include decreased number of falls, and decreased number and severity of fall-related injuries

==========

For more information, please email the Tampa PSCI HBPC Fall Project Team.

Medical Director:	Tatjana Bulat, MD	Tatjana.Bulat@va.gov
Associate Director:	Linda Cowan, PhD	Linda.Cowan@va.gov
Project Coordinator:	Nina Ferguson, MD	Nina.Ferguson@va.gov
PSCI Administrative Officer:	Yvonne Friedman, OT	Yvonne.friedman@va.gov

---

3. Appendix

a. Educational Materials

1. HBPC Clinician handouts and resources

CDC STEADI website: www.cdc.gov/steadi

- CDC: Measuring Orthostatic Blood Pressure https://www.cdc.gov/steadi/pdf/STEADI-Assessment-MeasuringBP-508.pdf
- CDC: The Timed Up and Go (TUG) Test) https://www.cdc.gov/steadi/pdf/STEADI-Assessment-TUG-508.pdf
- CDC: The 30 Second Chair Stand Test https://www.cdc.gov/steadi/pdf/STEADI-Assessment-30Sec-508.pdf
- CDC: The 4-Stage Balance Test https://www.cdc.gov/steadi/pdf/STEADI-Assessment-4Stage-508.pdf
- CDC: Stages of Change Model
- CDC: Talking about Fall Prevention with your patient
- CDC: Risk Factors for Falls
- CDC: Fall Risk Factor Checklist integrating fall prevention practice
- Handout linking specific risk factor assessment to targeted intervention https://www.cdc.gov/steadi/pdf/STEADI-Algorithm-508.pdf
- CDC: Take Steps to Prevent Older Adult Falls Fact Sheet for Clinicians

National VA Falls Toolkit website:
https://www.patientsafety.va.gov/onthejob/falls.asp

- VA NPSC Fall Toolkit recommended interventions for checklist
- VA NPSC injury risk information
- VA NPSC Fall Prevention at home

2. Patient and Caregiver printable educational materials

CDC STEADI website with items below: www.cdc.gov/steadi

- CDC: Home Safety Check list
- CDC: What You Can Do to Prevent Falls
- CDC: Stay Independent Brochure https://www.cdc.gov/steadi/pdf/check_for_safety_brochure-a.pdf
- CDC: Family Caregivers: Protect your loved ones from falling
- CDC: Chair Sit to Stand Home Exercise handout
- CDC recommended: Stay Safe Stay Active Daily Exercise Program

National VA Falls Toolkit website with items below:
https://www.patientsafety.va.gov/onthejob/falls.asp

- What to Do When You Fall
- How to fall

- How to get up from a fall
- Fall Prevention at Home brochure
- Hip Protector brochure
- Blood Thinner brochure
- NIA: Age Page Exercise and Physical Activity
- NOF: Man's Guide to Osteoporosis

---

b. Nationwide HBPC Best Practices List:

During the search for best practices, HBPC programs from across the country were interviewed (Tampa, FL; Portland, OR; Prescott, AZ; Philadelphia, PA and Seattle, WA). The authors of this HBPC Falls Toolkit are grateful for their generosity, talent, and time. Please see the Literature Review Section for links to specific tools and websites.

Here is the list of best practices to use with the HBPC Fall Flowchart:

HBPC Best Practices on Clinical Assessment Summary
▪ Use of a fall risk screening tool that is validated for the community dwelling adult population.
• Checking orthostatic vitals on all new admission patients, and during post fall evaluation assessments.
• Using a standardized and measurable functional assessment on all new patients such as the Timed Up and Go (TUG) test, 30 second chair stand, or 4-stage balance test - or document that the patient is bedbound.
• Injury risk assessment should be included in addition to fall risk assessment. Consider osteoporosis assessment, high risk medication evaluation, alcohol consumption, accident avoidance, ABCS Injury Risk
• Standardizing fall history elements. Consider **SPLAATT** (**S**ymptoms, **P**revious falls, **L**ocation, **A**ctivity and **A**lcohol, **T**iming and **T**rauma) and asking why they think the fall occurred.
• Adding "History of Fall" to the Active Problem List, if applicable.
• Utilizing a multifactorial fall assessment based on the AGS guidelines or CDC STEADI and adding injury prevention assessments, such as an evaluation for osteoporosis.
• Home environmental assessments by all IDT members. • Assessment of walking aids, assistive technologies, and protective devices as per scope of practice. • Using Motivational Interviewing to for encouragement.
• Consider **O2-PAGE** (**O**rthostatic vitals, **O**steoporosis risk, **P**hysical from Eye to Feet, **A**lcohol consumptions, Gait & Balance testing, Environmental Assessment

IDT Member Opportunities Best Practices Summary
• Each IDT member asks about falls and inspects the home for potential environmental fall hazards. • CDC:STEADI or NCPS Fall Toolkit Fall Prevention at Home Brochure https://www.cdc.gov/steadi/pdf/check_for_safety_brochure-a.pdf
• Utilizing a **KT/OT/PT** IDT member for valid fall risk screening tool, ADL/IADL, functional assessment, detailed home environmental assessment, prosthetic evaluation, fall history, and fall huddle leader. The assessment can be done on new patients, patients discussed at team meeting, as well as on addendums to post fall notes, and fall evaluations.
• Utilizing a **Nutritionist** IDT member for assistance with hydration status, missed meals, Calcium/Vitamin D intake and alcohol use. This assessment can be done on each patient discussed at team meeting, as well as on addendum to post fall notes and fall evaluations.
• Utilizing **Mental Health** providers and Social Workers to help with motivational interviewing, encouraging proper supervision, regular use of ambulatory assistive devices, and appropriate alcohol use.
• Utilizing a **Pharmacist** to assess for increased risk of both fall risk and injury risk (including Osteoporosis risk medications and Anticoagulation). Additionally, considering need for Vitamin D/Calcium. This assessment can be done on each patient discussed at team meeting, as well as addendum to post fall notes and fall evaluations. (Consider online CE course offering from CDC- SAFE Medication Review Framework from CDC:STEADI)
• All IDT can enter Post Fall Notification Note

Caregiver Support and Education Best Practices
• "Call If You Fall"- magnets or forms with HBPC phone number to encourage fall reporting.
• www.CDC.gov/STEADI website for educational materials such as: Home fall prevention checklist, or other Home evaluation checklist like the Home Assessment Profile (HAP) or Home Falls and Accidents Screening Tool (HOME FAST) See Appendix for links
• Focused Caregiver Educational handouts: Medical Foster Home (MFH) caregivers liked the PSCI handouts "What to do after a fall" and "Fall Prevention at Home". National VA Falls Toolkit website: https://www.patientsafety.va.gov/onthejob/falls.asp
• Discuss with caregiver their ideas regarding fall prevention with Motivational Interviewing Techniques (See page 51 for more information)
• Educational materials for caregiver support include: • NPSC: How to fall, How to get up from a fall, What to do after a fall, Osteoporosis Risk, Post fall instructions, Call if you fall information, Use of hip protectors, NCPS Fall Toolkit Fall Prevention at Home Brochure https://www.patientsafety.va.gov/onthejob/falls.asp

• CDC: Four things to prevent falls, Protect your loved ones from falling, Stay independent brochure Home safety https://www.cdc.gov/steadi/pdf/check_for_safety_brochure-a.pdf CDC STEADI website: www.CDC.gov/STEADI

Audit and Feedback Best Practices
• Post Fall Note in the electronic health record for each fall, with addendums from various IDT members
• Including fall severity and triage on each Post Fall Note. Most HBPC teams track fall- related hospitalizations rates. Examples: EPRP (External Peer Review Program) or JPSR (Joint Patient Safety Report).
• Regular Fall Huddles and Data Reporting back to frontline staff for intervention assessment.

c. IDT Specific Fall Assessment and Intervention Opportunities

Each team member can contribute to fall detection by asking about falls at each visit and documenting recent falls on a Post Fall Note. Due to the inherent nature of providing health services in the home, it is recommended that each IDT member check the home environment for possible hazards and fall risk interventions. Below is a list of possible fall assessment tasks that various members may contribute. The lists below can be used to create appropriate templates to suit various HBPC team compositions and complexities. The lists are comprehensive suggestions and should be tailored for individual HBPC Team as well as modified for individual patient needs.

KT/OT/PT (+ Nursing for applicable sections)
• Ask about falls regularly
• Validated fall risk screening with MAHC-10 or CDC STEADI (mjh-FRAT is recommended only for IDT with medication backgrounds)
• Functional Assessment: including ADLS and IADLS/KATZ, Gait and Balance Objective data (TUG, 4-Stage Balance Test, 30 Seconds Chair Stand Test, or note if they are bedbound). Consider Short Physical Performance Battery Protocol.
• Environmental Assessment with detailed room by room assessment. "Check for Safety" checklist, HAP, HOME FAST, etc. See References and Websites for links and more details) www.CDC.gov/STEADI NCPS Fall Toolkit Fall Prevention at Home Brochure https://www.cdc.gov/steadi/pdf/check_for_safety_brochure-a.pdf
• Assess for VA prosthetic items that may improve functionality and safety such as hip protectors, grab bars etc.

• Use Motivational Interviewing (www.motivationalinterviewing.org), and ask about fear of falling (5 stages of change: https://www.aafp.org/afp/2000/0301/p1409.html)
• Education for caregiver support including: STEADI materials, How to fall, How to get up from a fall, OP Risk, Post fall instructions, Call if you fall information, use of hip protectors. • National VA Falls Toolkit website: https://www.patientsafety.va.gov/onthejob/falls.asp • CDC:STEADI website: www.CDC.gov/STEADI
• Share information with IDT, serve as Fall Coordinator

DIETITIAN
• Ask about falls regularly
• Fall related history can include: missed meals, fluid intake, alcohol intake, and dietary calcium. Evaluations including: dehydration, Ca+2/Vitamin D, Some Osteoporosis risk education and assessment.
• Environmental Assessment • NCPS Fall Toolkit Fall Prevention at Home Brochure • https://www.cdc.gov/steadi/pdf/check_for_safety_brochure-a.pdf
• Observational input into falls evaluation & caregiver and patient education.
• Motivational Interviewing (http://journals.sagepub.com/doi/pdf/10.1177/0269215515617814 https://www.aafp.org/afp/2000/0301/p1409.html)
• Education for caregiver support including: STEADI materials, How to fall, How to get up from a fall, Osteoporosis Risk, Post fall instructions, Call if you fall information, use of hip protectors. • National VA Falls Toolkit website: https://www.patientsafety.va.gov/onthejob/falls.asp • CDC.STEADI website: www.cdc.gov/steadi
Share information with IDT

SOCIAL WORK
• Ask about falls regularly
• Observational input into fall assessment & Caregiver and patient education.
• Motivational Interviewing, caregiver education and support (5 stages of change, #scales) http://journals.sagepub.com/doi/pdf/10.1177/0269215515617814 https://www.aafp.org/afp/2000/0301/p1409.html

• Environmental assessment CDC:STEADI and NCPS Fall Toolkit Fall Prevention at Home https://www.cdc.gov/steadi/pdf/check_for_safety_brochure-a.pdf
• Education for caregiver support including: STEADI materials, How to fall, How to get up from a fall, OP Risk, Post fall instructions, Call if you fall information, use of hip protectors. • National VA Falls Toolkit website: https://www.patientsafety.va.gov/onthejob/falls.asp • CDC:STEADI website: www.CDC.gov/STEADI
• Share information with IDT

RESPIRATORY THERAPIST/CHAPLAIN/OTHER
• Ask about falls regularly
• Observational input into falls assessment & Caregiver and patient education.
• Motivational Interviewing, caregiver education and support (5 stages of change, #scales) http://journals.sagepub.com/doi/pdf/10.1177/0269215515617814 https://www.aafp.org/afp/2000/0301/p1409.html
• Environmental assessment • NCPS Fall Toolkit Fall Prevention at Home Brochure • https://www.cdc.gov/steadi/pdf/check_for_safety_brochure-a.pdf
• Education for caregiver support including: STEADI materials, How to fall, How to get up from a fall, OP Risk, Post fall instructions, Call if you fall information, use of hip protectors. • National VA Falls Toolkit website: https://www.patientsafety.va.gov/onthejob/falls.asp • CDC:STEADI website: www.CDC.gov/STEADI
• Share information with IDT

MENTAL HEALTH
• Ask about falls regularly
• Depression screen with validated screening tool (GDS, PHQ-2, PHQ-9. Follow VA protocols for suicide risk if positive screen)
• Cognitive assessment with validated screening tool (SLUMS, Mini-Cog, Folstein Clock)
• Exploration into the patient's fear of falling, or lack of insight about falls,
• Motivational Interviewing, caregiver education and support (5 stages of change, #scales) http://journals.sagepub.com/doi/pdf/10.1177/0269215515617814 https://www.aafp.org/afp/2000/0301/p1409.html

• Environmental assessment • NCPS Fall Toolkit Fall Prevention at Home Brochure and https://www.cdc.gov/steadi/pdf/check_for_safety_brochure-a.pdf
• Education for caregiver support including: STEADI materials, How to fall, How to get up from a fall, What to do after a fall, Osteoporosis Risk, Post fall instructions, Call if you fall information, use of hip protectors. • National VA Falls Toolkit website: https://www.patientsafety.va.gov/onthejob/falls.asp • CDC.STEADI website: www.CDC.gov/STEADI
• Share information with IDT

PHARMACIST
• Medication reconciliation with focus on both *risk of fall* and *risk of injury*: - **Medications that increase risk of falling** (Psychoactive medications, Antihistamines, Benzodiazepine, Anticonvulsant agents, Antidepressants, Muscle relaxers, Hypertensives, Antiparkinsonian agents, Analgesic, Antineoplastic, Hypoglycemic agents). Can also refer to CDC Medication List and SAFE Framework www.CDC.gov/STEADI - **Medications that increase risk of injury** (Adrenal Glucocorticoids, Anticoagulants, Proton-pump inhibitors, anti-androgens)
• Consider Vitamin D/Ca+2 supplementation
• Ask about recent falls and perform an environmental evaluation on visits
• Share information with IDT. Consider including high risk medications on each patient reviewed for team meeting.
• If home visits: Ask about falls and assess home environment risks
• https://www.cdc.gov/steadi/materials.html

RN (LPN as appropriate under Scope of Practice)
• Ask about falls regularly
• Environmental Assessment or Education https://www.cdc.gov/steadi/pdf/check_for_safety_brochure-a.pdf
• Share information with IDT
• Fall Risk Screening Assessment (MAHC-10, mjhFRAT, AGS/CDC STEADI)
• Standardized Fall History Elements: SPLAATT (Symptoms, Previous Falls for patterns, Location, Activity, Alcohol Timing, Trauma). Plus, ask why they feel the fall occurred.
• Diet and Alcohol intake (Consider from Dietitian)
• Osteoporosis Risk Factor Assessment (Consider parts from Dietitian) -Age over 60 -Family history of osteoporosis or hip, wrist, or vertebral fractures -Dietary risks: low calcium intake, anorexia, bypasses surgery

-Lifestyle choices: sedentary, excessive alcohol consumption, tobacco use -Medications (steroids, antidepressants, antiepileptic, anti-reflux medications) -Disease states (Menopause, cancer, depression) -WHO Fracture Risk Assessment Tool (FRAX) *Note age limitations https://www.sheffield.ac.uk/FRAX/tool.jsp
• Orthostatic vitals (lying for 5 min, standing for 1 min standing for 3 minutes)
• Functional Assessment: including ADLS and IADLS/KATZ, Gait and Balance Objective data (TUG, 4 Stage Balance Test, 30 Sec Chair Stand Test, or bedbound)
• Environmental Assessment (CDC checklist, HAP, HOME FAST, NCPS Fall Toolkit Fall Prevention at Home Brochure)
• Assess for possible VA prosthetic items that may improve functionality and safety (Consider KT/PT/OT)
• Depression screen with validated screening tool: GDS, PHQ-2, PHQ-9. Follow VA protocols for suicide risk if positive screen. (Consider from Mental Health).
• Gait Observation (Consider from KT/OT/PT)
• Vision (20/30), Hearing (whisper test)
• Cardiovascular and Pulmonary assessment
• Musculoskeletal assessment (Including joint assessment, muscle strength and ROM) Consider from KT/OT/PT
• Neurologic assessment
• Feet assessment (including footwear type, vascularization, and deformities)
• Urologic assessment (including bladder and prostate assessments)
• Cognitive evaluation with validated screening tool (SLUMS, Mini-Cog, Folstein Clock) (Consider from Mental Health).
• Exploration into the patient's fear of falling, or lack of insight about falls, Motivational Interviewing and education for caregiver support (5 stages of change, ask about fear of falling , number scales) http://journals.sagepub.com/doi/pdf/10.1177/0269215515617814 https://www.aafp.org/afp/2000/0301/p1409.html
• Education for caregiver support including: STEADI materials, How to fall, How to get up from a fall, What to do after a fall, Osteoporosis Risk, Post fall instructions, Call if you fall information, use of hip protectors. • National VA Falls Toolkit website: https://www.patientsafety.va.gov/onthejob/falls.asp • CDC.STEADI website: www.cdc.gov/steadi

PCP/MD/PA/ARNP (RN as appropriate under Scope of Practice)
• Ask about falls regularly
• Environmental evaluation: • NCPS Fall Toolkit Fall Prevention at Home Brochure • https://www.cdc.gov/steadi/pdf/check_for_safety_brochure-a.pdf
• Share information with IDT
• Fall Screen and Multifactorial Fall Assessment
• Validated fall risk screen or review of screen from another team member:(MAHC-10, mjhFRAT, AGS/CDC STEADI)
• Standardized Fall History Elements: SPLAATT-Symptoms, Previous Falls for patterns, Location, Activity, Alcohol, Timing, Trauma, & asking why they feel the fall occurred
• Diet and Alcohol intake (may be from Dietitian/RN/LPN)
• IDT Observational input from huddles, audit and feedback information
• Osteoporosis Risk Factor Assessment (parts may be from Dietitian/RN) a. Age over 60 b. Family history of osteoporosis or hip, wrist, or vertebral fractures c. Dietary risks: low calcium intake, anorexia, bypasses surgery d. Lifestyle choices: sedentary, excessive alcohol consumption, tobacco use e. Medications (steroids, antidepressants, antiepileptic, anti-reflux medications) f. Disease states (Menopause, cancer, depression) • WHO Fracture Risk Assessment Tool (FRAX) *Note age limitations https://www.sheffield.ac.uk/FRAX/tool.jsp

• Detailed physical exam including: a. Orthostatic vitals -lying for 5 min, standing for 1 min, standing for 3 min (May be from RN/LPN) b. Objective Functional Assessment (TUG, 30 sec Chair-Stand test, Four Stage Balance Test) (May be from RN/KT/OT/PT) c. Gait Observation (May be from RN/LPN/KT/OT/PT)it d. Vision (20/30), Hearing (whisper test) (May be from RN/LPN) e. Cardiovascular and Pulmonary exam f. Musculoskeletal exam (Including joint assessment, muscle strength and ROM) g. Neurologic exam (sensation (5.07 microfilament), proprioception, sensation, vestibular system, reflexes)

h. Foot exam (including footwear type, vascularization, and deformities) i. Consider urologic exam (including bladder and prostate assessments)
• Consider labs depending on patient goals: CBC, CMP, TSH, PTH, Alk Phos, Alb, IP, Ca+2, Vit D, Testosterone, LH/FSH
• Consider imaging depending on patient goals: X-rays, MRI, CT, NIVS, DEXA scan
• Multifactorial fall and injury assessment, consider using any of the following options: 1. AGS guidelines (see AGS website or AFP website for summary www.aafp.org/afp/2010/0701/p81.html) 2. CDC STEADI guidelines (see www.CDC.gov/STEADI website) 3. Fall risk and injury risk lists which includes either: (See HBPC Fall Assessment Flowchart Sections C.1 and C.2) a. Intrinsic and Extrinsic Risks Factors plus Injury Risk Factors with triggers for interventions or b. Plan to HELP prevent falls in the community with triggers for interventions which includes: H-home environmental assessment E-exercise and activity recommendations L-limit comorbidity and injury P-pharmacy review
• Exploration into the patient's fear of falling, or lack of insight about falls, Motivational Interviewing and education for caregiver support (5 stages of change, ask about fear of falling , number scales) http://journals.sagepub.com/doi/pdf/10.1177/0269215515617814 https://www.aafp.org/afp/2000/0301/p1409.html
• Education for caregiver support including: STEADI materials, How to fall, How to get up from a fall, What to do after a fall, Osteoporosis Risk, Post fall instructions, Call if you fall information, use of hip protectors. National VA Falls Toolkit website: https://www.patientsafety.va.gov/onthejob/falls.asp CDC.STEADI website: www.cdc.gov/steadi Home Assessment Brochures: -NCPS Fall Toolkit Fall Prevention at Home Brochure - https://www.cdc.gov/steadi/pdf/check_for_safety_brochure-a.pdf

d. Sample CPRS Templates with Table of Contents

The following templates are examples with vast amounts of educational information included. Each individual HBPC will have various IDT members with different scopes of practice and different contributions to offer. Therefore, each HBPC team will need to work with their Information Technologist/CAC to build templates that meet their specific needs. Some templates can serve as a parent note to which other templates can be placed as an addendum

A. FRA Screening Tools Template Samples with background information:

C. Fall Assessment Template Samples:

MAHC-10 (Missouri Alliance for Home Care – Fall Risk Assessment Tool)

The MAHC-10 is copyrighted and the administrator of the tool must not alter the included wording for the instructions. This HBPC Toolkit obtained permission to reproduce the tool from the creators of the MAHC-10 in August 2017, who gave permission for all VA to use if "MAHC-10" is documented on the Tool and the directions are kept the same as originally printed. This permission for reproduction is not valid if the directions are changed. Documentation in the electronic health record can be limited to the name, "MAHC-10," followed by the score and any positive findings. Any IDT member may administer this fall risk screening tool. The piloted teams in Florida, Georgia, and Wisconsin felt this tool fits their workflow for ease of use and scopes of practice. They acknowledged limitations in information acquired compared to the mjhFRAT and CDC STEADI.

Note that the MAHC-10 cut-off score for high-risk of fall is officially 4. However, statistical analyses (such as area under the Receiver Operating Characteristic or ROC curve) revealed a cutoff score of 6 may be more accurate to predict fall risk. Researchers such as Flemming support that the number is not as important as a positive finding. All positive findings should be addressed for possible injury prevention regardless of the cut-off number. Providers should conduct a fall risk assessment on each patient at start of care and re-certification. Assess one point for each core element "yes". Information may be gathered from the medical record, assessment and, if applicable, the patient/caregiver. Beyond protocols listed below, scoring should be based on your clinical judgment.

Template for MAHC-10 – Fall Risk Screening Tool

Conduct a fall risk screen on each patient at start of care and re-certification.

MAHC 10 - Fall Risk Assessment Tool (assign 1 point for each "Yes")

Core Elements	**Yes**
Age 65 years and older	
Diagnosis (3 or more co-existing) Includes only documented medical diagnosis	
Prior history of falls within 3 months (An unintentional change in position resulting in coming to rest on the ground or at a lower level)	
Incontinence (Inability to make it to the bathroom or commode in timely manner Includes frequency, urgency, and/or nocturia).	
Visual impairment (Includes but not limited to, macular degeneration, diabetic retinopathies, visual field loss, age related changes, decline in visual acuity, accommodation, glare tolerance, depth perception, and night vision or not wearing prescribed glasses or having the correct prescription).	
Impaired functional mobility (May include patients who need help with IADLS or ADLS or have gait or transfer problems, arthritis, pain, fear of	

falling, foot problems, impaired sensation, impaired coordination or improper use of assistive devices).	
Environmental hazards (May include but not limited to, poor illumination, equipment tubing, inappropriate footwear, pets, hard to reach items, floor surfaces that are uneven or cluttered, or outdoor entry and exits).	
Poly Pharmacy (4 or more prescriptions – any type) All PRESCRIPTIONS including prescriptions for OTC meds. Drugs highly associated with fall risk include but not limited to, sedatives, anti-depressants, tranquilizers, narcotics, anti-hypertensives, cardiac meds, corticosteroids, anti-anxiety drugs, anticholinergic drugs, and hypoglycemic drugs.	
Pain affecting level of function (Pain often affects an individual's desire or ability to move or pain can be a factor in depression or compliance with safety recommendations).	
Cognitive impairment (Could include patients with dementia, Alzheimer's or stroke patients or patients who are confused, use poor judgment, have decreased comprehension, impulsivity, memory deficits. Consider patients ability to adhere to the plan of care).	
A score of 4 or more is considered at risk for falling Total points:	

mjh-FRAT Template (Modified Johns Hopkins Fall Risk Assessment Tool)

The mjh-FRAT is validated for identifying community dwelling patients who are at risk of *injurious fall*. This is different from the risk of just falling as it is more specific to determining level of risk for an **injurious fall, not fall**. Based on feedback from the initial Tampa HBPC pilot, the administrators of this tool will need to have a scope of practice that allows for a strong working knowledge of pharmaceuticals, especially medication adverse effects. Therefore, we recommend the following IDT members for this tool: RN, ARNP, PA, MD. VA Hospitals that currently use the JH-FRAT may find this fall risk screening tool an easy transition for their HBPC program.

Core Elements	**Points**
History of more than one fall within 6 months before admission	**High Risk**
Deemed a high risk per protocol (e.g. seizures)	**High Risk**
Lack of understanding of one's physical and cognitive limitations	**High Risk**
If any one of the above are true: **Stop here** and Implement High-Risk Fall Interventions Protocol. If none above are true, continue with assessment below	
Fall History (select one)	
No falls	0 points
One fall within 6 months before admission	5 points
Elimination, Bowel and Bladder (select only one)	
No incontinence, urgency, or frequency	0 points
Incontinence	2 points

Urgency or frequency	2 points
Urgency/ frequency and incontinence	4 points
High Risk Medications: Includes PCA/ opiates, anti-convulsants, anti-hypertensives, diuretics, hypnotics, laxatives, sedatives, and psychotropics (select one)	
On 1 high fall risk medications	3 points
On 2 or more high fall risk medications	5 points
Sedation procedure within past 24 hours	7 points
Patient Care Equipment: Any equipment that tethers patient, e.g. IV infusion, chest tube, indwelling catheters, SCDs, etc. (select one)	
One present	1 point
Two present	2 points
Three or more present	3 points
Mobility (Multiple select, choose all that may apply and add points together)	
Requires assistance/supervision for mobility, transfer, or ambulation	2 points
Unsteady gait	2 points
A visual or auditory impairment affecting mobility	2 points
Cognition (Multiple select, choose all that apply and add points together)	
Altered awareness of immediate physical environment	1 point
Impulsivity/ poor safety judgment	2 points
Short term memory loss	2 points
(5 to 11 points = Moderate Risk) (>11 points = High Risk) **TOTAL:**	

CDC STEADI (CDC Stopping Elderly Accidents, Deaths & Injuries)

The CDC created a comprehensive fall screening, evaluation and assessment program for outpatient community dwelling adults. The Stay Independent Brochure has twelve questions designed for self-assessment to identify fall risk and the CDC adopted Three Screening Questions for clinicians to ask patients 65 and older as a routine part of exams (https://www.cdc.gov/steadi/index.html). Both the clinician questions and the 12 self-assessment questions from the Stay Independent Brochure are included below. Patients are stratified into low, moderate and high-risk with various recommended interventions delineated for fall prevention. The HBPC pilot feedback indicated the first three screening questions listed below were not as useful for risk factor identification, and clinicians using the twelve questions from the self-screening checklist prompted long interview engagements. The question "Do you worry about falling?" was considered helpful for motivation interviewing, particularly with assistive device encouragement.

Template for CDC STEADI and AGS FRA Screening Tool (use either tool below)

CDC STEADI (CDC Stopping Elderly Accidents, Deaths & Injuries)

Three Questions to Ask Your Older Adult Patients. When you see patients 65 and older, make these three questions a routine part of your exam:	**Points**
1. Have you fallen in the past year? (if yes, ask number of falls and injuries) If yes, "at risk"	**At risk**
2. Do you feel unsteady when standing or walking? If yes, "at risk"	**At risk**
3. Do you worry about falling? If yes, "at risk"	**At risk**
If any one of the above are answered "yes": Your patient is at risk and warrants further assessment. If all 3 answers were "no" stop here.	

OR…

Alternatively, screen with the Stay Independent Brochure from CDC STEADI using the questions and scoring below:	
I have fallen in the last 6 months	2 points
I use or have been advised to use a cane or walker to get around safely	2 points
Sometimes I feel unsteady when I am walking.	1 point
I steady myself by holding onto furniture when walking at home.	1 point
I am worried about falling.	1 point
I need to push with my hands to stand up from a chair.	1 point
I have some trouble stepping up onto a curb.	1 point
I often have to rush to the toilet.	1 point
I have lost some feeling in my feet.	1 point
I take medicine that sometimes makes me feel light-headed or more tired than usual	1 point
I take medicine to help me sleep or improve my mood.	1 point
I often feel sad or depressed.	1 point
(4 or more points = increased fall risk) **TOTAL:**	

B. Post Fall Notification

(Parent Note for any IDT member's use. Co-signatures to be determined by each HBPC program. Consider PCP, RN, Pharmacy, KT/OT/PT, Fall Coordinator, and possibly Dietitian, Mental Health and/or Social Worker)

• Date and time of event: _____
• Witnessed fall? _____ Yes or No
• Brief description of fall: _____

• Why does the patient or caregiver think the fall occurred? _____
• Symptoms?_____ _____ _____
• Activity? _____ _____ _____ _____
• Location/Room?_____ _____ _____
• Injury?_____ _____ _____ _____
• ER?_____ Yes or No
• Hospitalization? (if known at time) _____ Yes or No
• 911 Called?_____ Yes or No
• Previous fall in past 3 months? ____ Past year? ____

==========

Dietitian Post Fall Addendum CPRS Template Considerations:
• Labs: Most recent (Check to import)
▪ BMP
▪ CBC
▪ Hemoglobin A1C
▪ Vitamin D
• Hydration: (Free text comment box)
▪ Hand grip (click to activate)
• Overall PO intake (Choose one)
▪ ____ Good ____ Fair ____ Poor
▪ Does patient meet criteria for malnutrition? (Choose one) ___ Yes ____ No
• Fall Review: Closed (Choose one)
▪ No further recommendation
▪ Recommendation: (Free text comment box).
• Provider assign as co-signer to compete recommendations)

PCP/RN Post Fall Notification addendum (separate from Post Fall Assessment)
• Labs Reviewed: Yes/No. Comments:
• Has had any Hospital admissions, Procedures or infections in Past 30 days Yes/No. Comments:
• Did Patient Go to ER? Yes/No Comments:
• ER visit Outcome: Discharged home / Inpatient Admission. Comments
• Level of Injury: Mild/ Moderate/ Major/ Catastrophic. Comments: (have drop down for definitions of each levels for reference only)
• Fall Final disposition: No f/u needed vs f/u needed by _____(discipline)
• Comments:

==========

Pharmacy Post Fall addendum considerations:
• Medications that increase risk of fall include:
o Psychoactive medications, Antihistamines, Benzodiazepine, Anticonvulsant agents, Antidepressants, Muscle relaxers, Hypertensives, Antiparkinsonian agents, Analgesic, Antineoplastic, Hypoglycemic agents)
• Medications that increase risk of injury
o (Adrenal Glucocorticoids, Anticoagulants, PPI, anti-androgens)
• Consider Vitamin D/Ca+2 supplementation, Bisphosphonate treatment options

==========

Therapist Post Fall Note Assessment considerations:

Primary method of mobility:					
Ambulation	Choose one:	Independent	Supervision/Cueing	Caregiver assistance	Non ambulatory
	Choose one:	Without assistive device	With assistive device (What type?)		
Wheelchair	Choose one:	Manual	Power		
	Choose one:	Independent	Supervision/Cueing	Caregiver assistance	Dependent
	Not applicable				
Conditions Effecting Mobility (choose all that apply)	Hemiparesis	Partial weight bearing	Amputation	Impaired Gait	Impaired Posture
	Impaired vision	Impaired balance	Poor endurance	O2 user	Neuropathy
	Pain	Inconsistent use adaptive equipment	Poor safety awareness	Tubing tethered to patient	Other:
Was an assistive device being used? If so, what type?					
Was an assistive device recommended? _____Yes _____No					
Comments:					
Is this assistive device appropriate for patient?					
Was assistance recommended for this activity?					
How does patient call caregiver for assistance? _____ Verbal _____ Call button _____ Other:					
Was the patient wearing hip protectors at time of fall? Yes/No/Declined					
Protectors were issued to patient? _____Yes _____No					
Protective measures in	Low bed	Safety belt	Non-skid footwear	Call bell within reach	Floor mat

effect at time of fall (choose all that apply)	Frequent observation	Hip protectors	Bedrails (#)	Chair alarm	Bed alarm
	Other:				
Environmental conditions at time of fall	Lighting: Adequate/Non-adequate	Flooring (Carpet, hard surface, rugs	Non-skid footwear	Call bell within reach	Floor mat
	Furniture type (choose from list)	Rocker	Recliner	Chair with wheels	No arms
		No back	Low seat to floor height	High seat to floor height	Soft/plush furniture
	Equipment failure? Specify:				
	Other:				
Was education provided? _____Yes _____No					
Does patient follow recommendations? _____Yes _____No					
How many falls in the last 6 months? (Including current fall)					
Recommendations: (Add comments)					
MAHC-10/Missouri Alliance Home Care Fall Risk Assessment					
List of recommendations (Add comments)					
Therapist will provide education/recommendations					
Equipment ordered					

==========

c. Fall Assessment Template Samples

Template for IDT use for Optimizing Home Safety
o Educate caregiver and patient about falls and any KT specific home safety recommendations
o Use recommended aids and supervision
o Night lights or leaving hall or bathroom lights on overnight
o Grab bars installed inside and outside the tub or shower
o Grab bars next to the toilet
o Remove tripping hazards such as area rugs, cords, clutter, and clean spills immediately
o Use ramps, non-skid reflective tape, and grab bars for steps
o Consider hip protectors
Issue NCPS Fall Toolkit Fall Prevention at Home Brochure
or CDC Home Safety Checklist

==========

RN Fall Assessment Template Sample: Brief outline (See page 39 for detailed sample)

FRA Screening Tool options (Choose one)

____ MAHC-10

____ mJH-FRAT

____ CDC STEADI

Orthostatic Blood Pressure and Heart Rate (based on patient's abilities):

____ 5-minutes lying

____ 1-minute standing

_____ 3-minutes standing

Visual Acuity (can use pocket eye chart, < or = 20/30)

_____ YES/Intact _____ NO/Impaired

Review and complete home assessment list (Ex: CDC "Home safety checklist")

Functional Gait/Balance Assessment:
(Choose one or more. Refer to CDC STEADI website for testing instruction).

- Timed Up and Go (> 12 seconds is at increased risk for falls)
- Four Stage Balance Test (4 sub tests. Each timed for a maximum of 10 secs)
  - Feet together: _____/10 sec
  - Feet in-step: _____/10 sec
  - Feet in full tandem: _____/10 sec
  - Uni-pedal stance (preferred foot): _____/10 sec
- 30-second chair raise test

- Number of falls
- Fall-related injuries
- Fall history/SPLATT (Symptoms, Prior falls, Activity, Location, Trauma, Timing)
- Why does the patient/caregiver think the fall occurred?
- Dietary history and Alcohol
- Depression screen
- Cognitive screen

Risk Factor Identification and triggered interventions: (Can use either Intrinsic/Extrinsic Risks or HELP prevent falls. See Flowchart Component C.2)

==========

RN Fall Assessment Template: Same with detailed instructional inserts

Fall Screen: MAHC-1-, mJH FRAT, STEADI 3 or Stay Independent

Falls history: SPLATT (symptoms, prior falls, activity, timing, trauma)

Why does the patient or caregiver feel the falls occurred?

PHQ-2 or VA Clinical Reminder

Over the past two weeks, how often have you been bothered by any of the following problems?

- Little interest or pleasure in doing things? _____
  - 0 = Not at all
  - 1 = Several days
  - 2 = More than half the days
  - 3 = Nearly every day

- Feeling down, depressed, or hopeless? _____
  - 0 = Not at all
  - 1 = Several days
  - 2 = More than half the days
  - 3 = Nearly every day

Total point score: _____

Orthostatic vitals:

- 5 min lying BP: HR=
- 1 min standing BP: HR=
- 3 min standing BP: HR=

Corrected Visual Acuity: _____ (worse than 20/30 risk factor for falls)

Pain: _____ (0-10 scale)

Cognitive Screening: Recall _____ of 3

Functional testing: (Choose one or more. Refer to CDC STEADI website for testing instruction).

- 4 Stage Balance Test:
  (Hold 4 different pedal positions for 10 seconds each)
  - Feet together: _____/10 secs
    (Stand with feet side by side).
  - Feet in-step: _____/10 secs
    (Place instep on one foot so it is touching the big toe of the other foot).
  - Feet in full tandem: _____/10 secs
    (Place one foot in front of the other, heel touching toe).
  - Uni-pedal stance (preferred foot): _____/10 secs
    (Stand on one foot).

    Balance Impaired: Y/N

- TUG: _____seconds
  (Timed Up and Go Test for walking 10 feet and back. >11 sec is significant for impaired mobility and >13.5 is significant for increased risk of falling)
  Significant for Gait Mobility Impairment: Y/N

  Significant for increased risk of Falls: Y/N

- 30-Sec Chair Stand:
  Age normative values

Age	Men	Women
60-64	<14	<12
65-69	<12	<11
70-74	<12	<10
75-79	<11	<10
80-84	<10	<9

85-89 <8 <8

90-94 <7 <4

Deconditioned: Y/N

INTRINSIC FALL RISK FACTORS:

- Advanced age: _____ (Yes/No)
- Fear of falling: _____ (Yes/No)
- Previous falls: _____ (Yes/No)
- Poor vision: _____ (Yes/No)
- Postural hypotension: _____ (Yes/No)
- Muscle weakness: _____ (Yes/No) (Abnormal 30-Sec Chair Stand or use of arm to arise from chair)
- Gait& balance problems: _____ (Yes/No) (Abnormal TUG or 4 Stage Balance Test)

EXTRINSIC FALL RISK FACTORS:

Home Environment:

- Lack of stair handrails: _____ (Yes/No)
- Poor stair design: _____ (Yes/No)
- Lack of bathroom grab bars: _____ (Yes/No)
- Dim lighting or glare: _____ (Yes/No)
- Obstacles & tripping hazards: _____ (Yes/No)
- Slippery or uneven surfaces: _____ (Yes/No)
- Ideal foot wear education
- Ambulatory assist device assessment and education
- Pet safety education
- Prosthetic devices evaluation

OR

HELP prevent falls

H-Home Environment:

- Lack of stair handrails: _____ (Yes/No)
- Poor stair design: _____ (Yes/No)
- Lack of bathroom grab bars: _____ (Yes/No)
- Dim lighting or glare: _____ (Yes/No)
- Obstacles & tripping hazards: _____ (Yes/No)
- Slippery or uneven surfaces: _____ (Yes/No)
- Foot wear education
- Ambulatory assist device assessment and education
- Pet safety education
- Prosthetic devices evaluation

E- Exercise or Activity. See Functional Assessment results:

- PT/OT, Tai Chi, Rehab, Walking Program, Activity increased, Chair-stand from STEADI exercise handout. Focus on increasing leg strength, flexibility and improving balance, and that they get more challenging over time.

L- Limit Comorbidity- Maximize current treatment:

- Review fall risk screen positive findings and address
- Vision check and ophthalmology consult
- Orthostatic Assessment: Notify PCP and issue CDC Brochure: Change Positions Slowly: Standing up slowly after lying or sitting.
- Fear of falling and history of falls, Depression: Consider cognitive behavior therapy, Mental Health consult, Motivational Interviewing, PT consult.
- Additional Comorbidity considerations: Vitamin D deficiency; Hearing loss; Pain; Incontinence; Cardiovascular disease including arrhythmia, CAD, Syncope, hypotension; Pulmonary disease including hypoxia, COPD; Neurologic disease including stroke, syncope, Parkinson's disease, vertigo, neuropathy, vestibular changes; DJD and pedal issues, Diabetes Mellitus, Thyroid disease, Anticoagulation, Osteoporosis→ assess if additional intervention needed

P-Pharmacy consulted for:

- Medications that increase risk of FALLING
- Medications that increase risk of INJURY
- Consider Vitamin D/Calcium supplementation

==========

PCP Fall Multifactorial Fall Assessment Template Sample:

FRA: MAHC-10, mJH FRAT, or CDC STEADI

Positive findings on the FRA above include:

- Falls History:
  - PHQ score: _____
  - Cognitive screen score: _____
- Orthostatic vitals:
  - Orthostatic BP: _____/lying 5 minutes, _____/standing 1 min, _____/standing 3 min
  - Orthostatic Pulse: _____ Sitting, _____lying, _____standing
- EXAM:
  - Constitutional: Including mobility aids
  - HEENT: Visual Acuity: +/- Glasses
  - CV, RESPIRATORY,GI, etc.
  - NEUROLOGIC: A&O X3, recall /3, Clock, CN II-XII grossly intact, Tone, Cogwheeling, Sensation, Proprioception, Reflexes
  - MUSCULOSKELETAL: Strength, Laxity and synovitis
  - EXT: Edema, Feet and Footwear
- GAIT, STRENGTH & BALANCE ASSESSMENT: (Completed by nurse)

- TUG for Gait: ____sec Impaired Mobility vs. Increased risk of Fall
- 30 Sec Chair Stand for Strength
- 4 Stage Balance Test
- 30 Sec Chair Stand for Strength
- 4 Stage Balance Test

- ASSESSMENT: The patient is at risk for falls due to the following extrinsic and intrinsic factors:

EXTRINSIC FALL RISK FACTORS:

- Home environment
- Medications
- Assistive device use
- Lack of stair handrails
- Poor stair design
- Lack of bathroom grab bars
- Dim lighting or glare
- Obstacles & tripping hazards
- Slippery or uneven surfaces
- Psychoactive medications
- Anticholinergic medications
- Sedating OTC medications
- Improper use of assistive device

INTRINSIC FALL RISK FACTORS:

- Advanced age
- Muscle weakness
- Gait& balance problems
- Poor vision
- Postural hypotension
- Fear of falling
- Chronic conditions (Diabetes, DJD including foot problems, CVA, Parkinson's, incontinence, dementia, depression, cardiac arrhythmias, etc...)

FALL INTERVENTIONS: To reduce the risk of falling, the following fall interventions are recommended (include all which are applicable):

1. Optimize medications
   - Manage and monitor hypotension
   - Give brochure: Postural Hypotension, What It Is and How to Manage It.
   - Use non-pharmacologic options such as drink adequate amounts of fluids and do ankle pumps and hand clenches for a minute before standing

- Discontinue or decrease psychoactive medications, sedating medications, and anticholinergic medications

2. Enhance strength and balance
   - Chair Rise Exercise Handout
   - Refer to an exercise, fitness, or fall prevention program to optimize leg strength and balance (goal is 1-hour 3x week for minimum of 4 months or 1 hour
   - 2x week for minimum of 6 months)
   - Consider 800IU or more of Vitamin D supplement to optimize muscle strength
3. Improve functional mobility
   - Consider mental health consult if depression present or fear of falling
   - Advise on proper use of mobility aides with consult to PT
   - Address foot problems or refer to podiatry
   - Consider neuropathy workup with neurology and labs
4. Manage Osteoporosis risks
   - Consider Calcium and Vitamin D daily
   - Consider DEXA Scan
5. Optimize vision
   - Referral to an ophthalmologist
   - Suggest single lens distance glasses for walking outside
6. Optimize home safety
   - Consider home PT consult for a 1 time home safety evaluation.
   - Night lights or leaving hall or bathroom lights on overnight
   - Grab bars installed inside and outside the tub or shower
   - Grab bars next to the toilet
   - Remove tripping hazards such as area rugs, and clutter
   - Use ramps for steps
   - Consider hip protectors
7. Educate patient
   - Use "Stages of Change" motivational interviewing model
   - Emphasize that a fall is not simply "bad luck"
   - Emphasize that many falls can be prevented
   - Do not walk if dizzy
   - Issue brochure: CDC's What You Can Do to Prevent Falls and Check for Safety

OR use the HELP Prevent Falls pneumonic tool described below

HELP Prevent Falls

When the Assessment indicates the patient is at in increased risk of falls,

Use the H-E-L-P tool below to determine what specific interventions may be needed to address identified risks:

H-Home environmental hazards: (Extrinsic risk)

For patients with identified issues with environment, clothes, pets, ambulatory assist devices:

Interventions may include, but not limited to:

• Foot wear education
• Ambulatory assist education and Motivational Interviewing
• Low bed
• Pet education
• Floor mats
• Hip protectors
• Helmet
• Remove clutter
• Provide room-by-room safety assessment and interventions (Some HBPC use the STEADI home evaluation checklist).
• Perform mobility assistive device assessment & interventions, use motivational interviewing
• Consider HISA Grant for modifications

E- Exercise and Activity: (Intrinsic risk)

For patients with issues related to mobility, weakness, or gait and balance:

Interventions may include:

• PT/OT
• Tai Chi
• Rehab
• Walking program
• Activity increased prescription (Monitor heartrate per American Heart Association Target Heart Rate Ranges)
• Community exercise program
• Chair-stand from STEADI

L- Limit Comorbidity: (Intrinsic risk)

1**. Review and address findings on validated fall risks screening tool for interventions:**

(Ex: Muscle weakness, Gait/Balance, Vision loss, History of fall, # Comorbid conditions, Incontinence, Pain, Cognitive Impairment)

2. **Maximize important comorbidity treatments and consider consultations especially for:**

- Hearing loss
- Depression
- Cardiovascular disease (CAD, Syncope, Arrhythmia, Hypotension/Orthostatic)
- Pulmonary disease (COPD, Asthma, Pulmonary hypertension)
- Neurologic disorders (Dementia, CVA, Seizure, Parkinson's Disease,
- Parkinson's Plus Disorders, vertigo, neuropathy)
- Arthritic diseases and Pedal problems
- Diabetes Mellitus
- Thyroid disorders

3. **Assess for Injury risk:**

- Osteoporosis risk factors
- Age over 60
- Family history of osteoporosis or hip, wrist, or vertebral fractures
- Dietary risks: low calcium intake, anorexia, bypasses surgery
- Lifestyle choices: sedentary, **excessive alcohol consumption**, tobacco use
- Medications (steroids, antidepressants, antiepileptic, anti-reflux medications)
- Disease states (Menopause, cancer, depression)
- WHO Fracture Risk Assessment Tool (FRAX) *Note Age limitation https://www.sheffield.ac.uk/FRAX/tool.jsp
- Percent (%) risk of major fracture in the next 10 years
- Percent (%) risk of hip fracture in the next 10 years

Intervention may include:

• Reduce modifiable injury risk factors such as activity, smoking, limiting medications like PPI and steroids
• Assess for bisphosphonates, vitamin D, and calcium treatments
• Assess medications for high injury risk: see below P-Pharmacy)

P- Pharmacy/Pills: (Extrinsic risk)

• Medications that increase risk of **falling** (Psychoactive medications, antihistamines, Benzodiazepine, anti-convulsant agents, Antidepressants, muscle relaxers, hypertensives, anti-Parkinson agents, analgesic, antineoplastic, hypoglycemic agents)
• Medications that increase risk of **injury** (Anticoagulation, diabetic hypoglycemic agents, Adrenal glucocorticoids, Anticoagulants, PPIs, Anti-androgens, psychotropic drugs)
• Consider Vitamin D/Ca+2 supplementation

Additional Sample Post Fall Assessment Templates

If previous fall in same quarter, use clinical judgement if totally new evaluation needed. Conduct a Fall Risk Screen within 4 weeks of fall by KT/OT/PT or Primary Care Provider (using MAHC-10, STEADI, or mJHFRAT tools)

If MAHC-10:

Core Elements	**Yes**
Age 65 years and older	
Diagnosis (3 or more co-existing) Includes only documented medical diagnosis	
Prior history of falls within 3 months (An unintentional change in position resulting in coming to rest on the ground or at a lower level)	
Incontinence (Inability to make it to the bathroom or commode in timely manner Includes frequency, urgency, and/or nocturia).	
Visual impairment (Includes but not limited to, macular degeneration, diabetic retinopathies, visual field loss, age related changes, decline in visual acuity, accommodation, glare tolerance, depth perception, night vision, or not wearing prescribed glasses or having the correct prescription).	
Impaired functional mobility (May include patients who need help with IADLS or ADLS or have gait or transfer problems, arthritis, pain, fear of falling, foot problems, impaired sensation, impaired coordination or improper use of assistive devices).	
Environmental hazards (May include but not limited to, poor illumination, equipment tubing, inappropriate footwear, pets, hard to reach items, floor surfaces that are uneven or cluttered, or outdoor entry and exits).	
Poly Pharmacy (4 or more prescriptions – any type) All PRESCRIPTIONS including prescriptions for OTC meds. Drugs highly associated with fall risk include but not limited to, sedatives, anti-depressants, tranquilizers, narcotics, anti-hypertensives, cardiac meds, corticosteroids, anti-anxiety drugs, anticholinergic drugs, and hypoglycemic drugs.	
Pain affecting level of function (Pain often affects an individual's desire or ability to move or pain can be a factor in depression or compliance with safety recommendations).	
Cognitive impairment (Could include patients with dementia, Alzheimer's or stroke patients or patients who are confused, use poor judgment, have decreased comprehension, impulsivity, memory deficits. Consider patients ability to adhere to the plan of care).	
Total points:	
A score of 4 or more is considered at risk for falling	

- If indicated: Home evaluation within 4 weeks of fall (by KT/OT/PT). Can be brief, and indicate only changes from previous visit.

    - Include: poor illumination, equipment and tubing, inappropriate footwear, pets, hard to reach items, floor surfaces that are uneven or cluttered, bathroom safety, and outdoor entry and exits. Functionality in Home environment setting and needed equipment and adaptive equipment.
- Medication evaluation within 1 week (by pharmacist)
    - High fall risk medications- sedatives, anti-depressants, tranquilizers, narcotics, anti-hypertensives, cardiac meds, corticosteroids, anti-anxiety drugs, anticholinergic drugs, hypoglycemic drugs, etc.
    - High injury risk medications (Steroids, anti-coagulates, PPI, chemo-tx. esp anti-androgens, Dilantin, Phenobarbital, Lithium, Heparin, Methotrexate, SSRI, Tamoxifen, Excess Thyroid hormone)
    - Role of new medications, added in the past 3 months, in fall? Y/N
- PMH of high-risk diagnosis (CVA, DM, Neuropathy, Neuromuscular disease, Parkinson's Disease, Dementia, Seizures, CAD, DJD, Depression)
- Eye exam date (vision < or = to 20/30)- and hearing assessment if needed.
- Cognition screen date and results (SLUMS, MMSE, etc.)
- Depression screen date and results (PHQ-2 or 9)
- Osteoporosis evaluation (Risk factors: age over 50, female, menopause, FMH OP, low BMI, h/o fracture or height loss, to and alcohol use, low calcium intake, low Vitamin D, inactive lifestyle, diseases such as RA, IBD and DM, medications, Dexa scan, FRAX score, labs)
- Nocturia evaluation
- Cardiology ROS and exam (Especially for orthostatic vitals, syncope and arrhythmia)
- Pain evaluation (Pain scale)
- Neurological evaluation (including postural instability, bruit, CN II-X, weakness, proprioception, sensation)
- Muscular-Skeletal and Gait and Balance Evaluation (TUG: 12 second cut off, 4 stage balance, 30 sec chair stands, assistive device evaluation, joint limitations)
- Assessment:
    - H/o Fall due to (Intrinsic and Extrinsic risk factors or HELP)
- Interventions:
    - Home evaluation
    - Exercise recommendations
    - Limit Comorbidity impact
    - Applicable components of fall assessment and initial post fall notification note
    - Comorbidity burden treatment maximization (Example: Assistive device use, Foot wear advice, Eye Clinic consult, Alcohol consumption
    - Pharmacy Medication assessment for fall risk and injury risk (Medication safety /anticoagulation)
    - Education: Cosign Mental Health if needed, such as Osteoporosis education, Exercise handouts like sit to stand, Safe fall recovery, Postural Hypotension information (drink fluids, ankle pumps/ hand clenches for a minute prior to standing, do not walk if dizzy)

    - Use Motivation Interviewing and Stages of Change Model (Prochaska Am J Health Promot 1997; 12(1):38-48.
        - Pre-contemplative Stage (Downplays personal susceptibility)
        - Contemplative Stage (Weighs benefits vs. costs of behavior change)
        - Preparation Stage (Experiments with small changes)
        - Action Stage (Takes definitive action to change)
        - Maintenance Stage (Maintains new behavior over time)
- Reporting:
    - Add History of Fall to problem list
    - Report each fall individually on the Post Fall Notification Template and cosign to team members and fall coordinator.

---

4. References and Websites for further information

The American Geriatrics Society/British Geriatrics Society. (2010) AGS/BGS clinical practice guideline: Prevention of falls in older persons. Retrieved from: www.americangeriatrics.org/education/prevention_of_falls.shtml

Calys, M, Gagnon K, Jernigan S. (2012). A validation study of the Missouri alliance for homecare fall risk assessment tool. *Home Practice Care Management.* doi: 10.1177/1084822312457942.

Centers for Disease Control. (2017). CDC STEADI Program for Falls Prevention. Atlanta, GA: Author. Retrieved from: http://www.cdc.gov/homeandrecreationalsafety/falls/adultfalls.html

Chandler J, Duncan P, Weiner D, Studenski S. (2001). Special feature: The Home Assessment Profile-A reliable and valid assessment tool. Topics in Geriatric Rehabilitation. 16(3):77–88.

Cooper B, Letts L, Rigby P, Stewart D, Strong S (2005). Measuring environmental factors. In M. Law, C Baum & W Dunn (Eds.), measuring occupational performance: Supporting best practice in occupational therapy (2nd ed., pp. 326–327). Thorofare, NJ: Slack.

Cumming, R. G., Thomas, M., Szonyi, G., Frampton, G., Salkeld, G., & Clemson, L. (2001). Adherence to occupational therapist recommendations for home modifications for fall prevention. *American Journal of Occupational Therapy, 55*(6), 641–648.

Cwikel, JG, Fried V, Biderman A, Galinsky D. (1988). Validation of a fall-risk screening test, the Elderly Fall Screening Test (EFST) for community-dwelling elderly. *Disabil Rehabil, 20*(5): 161–167.

Flemming, P. (2006). Utilization of a Screening Tool to Identify Homebound Older Adults at Risk for Falls: Validity and Reliability. *Home Health Care Services* Quarterly, Vol. 25(3/4).

Flores, E. Falls Risk Assessment and Modification. *Home Health Care Management & Practice 24*(4), 198–204. 2012 Sage Publications.

Gillespie, L.D., Robertson, M.C.,W.J., Sherington, C., Gates, S., Clemson, L.M., & Lamb, S. E. (2012). Interventions for preventing falls in older people living in the community. Cochrane Database of Systematic Review, 9, CD007146. doi:10.1002/14651858.CD007146.pub3

Hnizdo S., Archuleta RA., Taylor B., Kim SC. (2013). Validity and Reliability of the Modified John Hopkins Fall Risk Assessment Tool for elderly patients in home health care. *Geriatr Nurs* 34(5):423-7. doi:10.1016/j.gerinurse.2013.05.011.

Johnson M, Cusick A, Chang S (2001). Home-screen: A short scale to measure fall risk in the home. *Public Health Nursing, 18*(3), 169–177.

Mackenzie L, Byles J, Higginbotham N (2002). Reliability of the Home Falls and Accidents Screening Tool (HOME FAST) for identifying older people at increased risk of falls. *Disability & Rehabilitation 24*(5); 266–274.

Minnesota Safety Council. Fall Prevention Checklist-Personal Risk Factors. http://www.fallpreventiontaskforce.org/documents/PersonalRiskFactorsChecklist.pdf

Moyer, V. A. (2012). Prevention of falls in community-dwelling older adults: U.S Preventive Services. *Annals of Internal Medicine, 157*, 815–825.

Tromp M, Pluijm S, Smit J, Deeg D, Bouter L, Lips P (2001). Fall-risk screening test: A prospective study on predictors for falls in community-dwelling elderly. *Journal of Clinical Epidemiology*, *54,* 837–844.

Websites for further information:

National Patient Safety Goal #9
www.jointcommission.org/standards_information/npsgs/aspx

Implementation Guide for Fall Injury Reduction
VA National Center for Patient Safety: Reducing Preventable Falls and Fall-Related Injuries (2015). Neily, J., Quigley, P.A., Essen, K.
https://www.patientsafety.va.gov/docs/fallstoolkit14/falls_implementation_%20guide%20_02_2015.pdf

AGS/BGS 2010 Clinical Practice Guideline
https://www.aafp.org/afp/2010/0701/p81.pdf
http://www.alabmed.com/uploadfile/2014/0504/20140504033204923.pdf

CDC STEADI
https://www.cdc.gov/steadi/

- Timed Up and Go (recommended) https://www.cdc.gov/steadi/pdf/STEADI-Assessment-TUG-508.pdf
- 30 sec Chair stand test (optional) https://www.cdc.gov/steadi/pdf/STEADI-Assessment-30Sec-508.pdf
- 4 stage Balance Test (optional) https://www.cdc.gov/steadi/pdf/STEADI-Assessment-4Stage-508.pdf
- Data sheets and instruction for performance of orthostatic https://www.cdc.gov/steadi/pdf/STEADI-Assessment-MeasuringBP-508.pdf
- Data sheets and instruction for performance of functional measures https://www.cdc.gov/steadi/materials.html
- Integrating fall prevention practice handout that links specific risk factor assessment to targeted intervention https://www.cdc.gov/steadi/pdf/STEADI-Algorithm-508.pdf
- Handouts pertaining to fall risk factors and medications https://www.cdc.gov/steadi/materials.html

CDC Checklist
https://www.cdc.gov/steadi/pdf/STEADI-Form-RiskFactorsCk-508.pdf
Home safety
https://www.cdc.gov/steadi/pdf/check_for_safety_brochure-a.pdf
Personal Risk Factors Fall Prevention Checklist
CDC Checklist: https://www.cdc.gov/steadi/pdf/STEADI-Form-RiskFactorsCk-508.pdf

WHO Fracture Risk Assessment Tool (FRAX)
https://www.sheffield.ac.uk/FRAX/tool.jsp

ABCS Injury Risk (validated for hospitals)
www.hret-hiin.org/resources/display/abcs-injury-risk-assessment

Motivational Interviewing
www.motivationalinterviewing.org
Motivation Interviewing and Stages of Change Model (Prochaska) Am J Health Promot 1997;12(1):38-48.

Minnesota Safety Council. Fall Prevention Checklist-Personal Risk Factors
http://www.minnesotasafetycouncil.org/seniorsafe/falls/

http://www.fallpreventiontaskforce.org/documents/PersonalRiskFactorsChecklist.pdf

Pighills, A. C., Torgerson, D.J., Sheldon, T.A., Drummond, A. E., Bland, J.M. (2011). Environmental Assessment and Modification to Prevent Falls in Older People. Journal of the American Geriatrics Society, 59(1),26-33. https://doi.org/10.1111/j.1532-5415.2010.03221.x

Standardized and Validated Multi-Factorial Fall Risk Assessment Screening Tools for Home Bound Patients

MAHC-10: Missouri Alliance for HomeCare Fall Risk Assessment

https://www.homecaremissouri.org/projects/falls/documents/Oct2012FINALValidatedFallriskassessmenttool.pdf

Calys, M, Gagnon K, Jernigan S. (2012). A validation study of the Missouri alliance for homecare fall risk assessment tool. Home Practice Care Management. doi: 10.1177/1084822312457942.

Johns Hopkins Fall Risk Assessment Tool (not Modified)

https://www.hopkinsmedicine.org/institute_nursing/models_tools/JHFRAT_acute%20care%20original_6_22_17.pdf

EFST-Elderly Falls Screening Test

https://www.tandfonline.com/doi/pdf/10.3109/09638289809166077

Cwikel, JG, Fried V, Biderman A, Galinsky D. (1988). Validation of a fall-risk screening test, the Elderly Fall Screening Test (EFST) for community-dwelling elderly. Disabil Rehabil, 20(5): 161-167.

Comprehensive Falls Risk Screening Instrument

https://www.researchgate.net/publication/228789786_Development_and_Validation_of_the_Comprehensive_Falls_Risk_Screening_Instrument

Fabre J, Elli R, Kosma M, Moore D, McCarter K, Wood R. (2010). Development and Validation of the Comprehensive Falls Risk Screening Instrument. Physical and Occupational Therapy in Geriatrics, 28(2): 181-194.

Fall-Risk Screening Test

https://ac.els-cdn.com/S0895435601003493/1-s2.0-S0895435601003493-main.pdf?_tid=247df818-4c28-4c7d-9072-ec7f9c2d920b&acdnat=1532542590_4c7bf5b419a1ebcc715834c5bba35688

Tromp M, Pluijm S, Smit J, Deeg D, Bouter L, Lips P (2001). Fall-risk screening test: A prospective study on predictors for falls in community-dwelling elderly. Journal of Clinical Epidemiology, 54, 837-844.

Home Assessments

Home Assessment Profile (HAP)

Chandler J, Duncan P, Weiner D, Studenski S. (2001). Special feature: The Home Assessment Profile-A reliable and valid assessment tool. Topics in Geriatric Rehabilitation. 16(3):77-88.

HOME FAST

Mackenzie L, Byles J, Higginbotham N (2002). Reliability of the Home Falls and Accidents Screening Tool (HOME FAST) for identifying older people at increased risk of falls. Disability & Rehabilitation 24(5); 266-274.

Home-screen Scale

Johnson M, Cusick A, Chang S (2001). Home-screen: A short scale to measure fall risk in the home. Public Health Nursing. 18(3), 169-177.

Westmead Home Safety Assessment

Cooper B, Letts L, Rigby P, Stewart D, Strong S (2005). Measuring environmental factors. In M. Law, C Baum & W Dunn (Eds.), measuring occupational performance: Supporting best practice in occupational therapy (2nd ed., pp. 326-327). Thorofare, NJ: Slack.

The National Quality Forum "**Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls**". STEWARD: National Committee for Quality Assurance. This was originally endorsed in 2009 by NQF and re-endorsed in 2012, and is currently updating it as of August 14, 2018, specific for patients 65 and older. Website link: https://www.qualityforum.org/Home.aspx