



**STEADI-R_x
OLDER ADULT
FALL PREVENTION**

**Guide for
Community
Pharmacists**



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

STEADI Stopping Elderly Accidents,
Deaths & Injuries

www.cdc.gov/steady

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OLDER ADULT
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**Guide for
Community
Pharmacists**

By

Stefanie P. Ferreri, PharmD¹

Susan J. Blalock, MPH, PhD¹

Jessica M. Robinson, PharmD^{1,2}

Chelsea P. Renfro, PharmD³

Jan Busby-Whitehead, MD⁴

Elizabeth R. Burns, MPH⁵

Yara Haddad, PharmD, MPH⁶

¹UNC Eshelman School of Pharmacy,
University of North Carolina at Chapel Hill,
Chapel Hill, North Carolina

²East Tennessee State University,
Bill Gatton College of Pharmacy,
Johnson City, Tennessee

³University of Tennessee
Health Science Center College of Pharmacy,
Memphis, Tennessee

⁴UNC School of Medicine,
University of North Carolina at Chapel Hill,
Chapel Hill, North Carolina

⁵Division of Injury Prevention,
National Center for Injury Prevention and Control,
Centers for Disease Control and Prevention,
Atlanta, Georgia

⁶TJFACT Pharmacist Consultant to the
Centers for Disease Control and Prevention,
Atlanta, Georgia

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Centers for Disease Control and Prevention

Robert R. Redfield, MD, Director

National Center for Injury Prevention and Control

Debra Houry, MD, MPH, Director

Division of Injury Prevention

Judith R. Qualters, PhD, MPH, Director

Applied Sciences Branch

Ann Dellinger, PhD, MPH, Branch Chief

Safety Promotion Team

Robin Lee, PhD, MPH, Team Lead

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Why Focus on Falls?

OLDER ADULT FALLS: AN OPPORTUNITY FOR PHARMACISTS

Falls among adults aged 65 and older (older adults) are a growing and significant public health concern. More than one in four older adults falls each year,¹ and falls cost an estimated \$50 billion in annual medical costs.² Older adults who fall often experience decreased mobility and loss of independence, which may increase future falls. Falls lead to serious injuries such as traumatic brain injuries, hip fractures, and even death.¹ However, there are many evidence-based interventions that can reduce falls, including reducing medications that increase fall risk.³

Pharmacists can play a role in fall prevention by assessing medication regimens and providing clinical recommendations to help reduce the risk of falls. Certain medication classes affect cognition and physical function, which contribute to fall risk.⁴⁻⁷ These are anticonvulsants, antidepressants, antihistamines, antihypertensives, antipsychotics, benzodiazepines, muscle relaxants, opioids, and sedative hypnotics. Reducing medications for which the potential risks outweigh the potential benefits may reduce falls by 39–66%.^{3,8} Pharmacists can use geriatric support tools such as The American Geriatrics Society (AGS) Beers Criteria,⁵ the Screening Tool of Older Persons' Prescriptions (STOPP),⁶ or the anticholinergic burden indices,^{5,7} to identify potentially inappropriate medications used by older adults.

The Centers for Disease Control and Prevention (CDC), in partnership with the University of North Carolina Eshelman School of Pharmacy and School of Medicine, developed STEADI-R_x to help pharmacists work with the healthcare team to promote safe medication use and healthy outcomes in older adults.

STEADI-R_x

STEADI-R_x is based on CDC's [Stopping Elderly Accidents, Deaths and Injuries \(STEADI\)](#) initiative⁹ and incorporates the Joint Commission of Pharmacy Practitioners (JCPP) Pharmacists' Patient Care Process.¹⁰ STEADI-R_x offers a 3-step framework, or [algorithm](#), for integrating fall screening and prevention into pharmaceutical care and a suite of tools that can be used to assist pharmacy staff in completing each step. It was developed by geriatric pharmacists, healthcare providers, and fall prevention experts committed to helping reduce fall injuries among older adults. This guide provides an overview of STEADI-R_x and how it can be personalized and implemented into a pharmaceutical practice. Copies of the tools are provided at the end of this guide and can also be downloaded on the [STEADI-Rx website](#).

HOW STEADI-R_x WORKS:



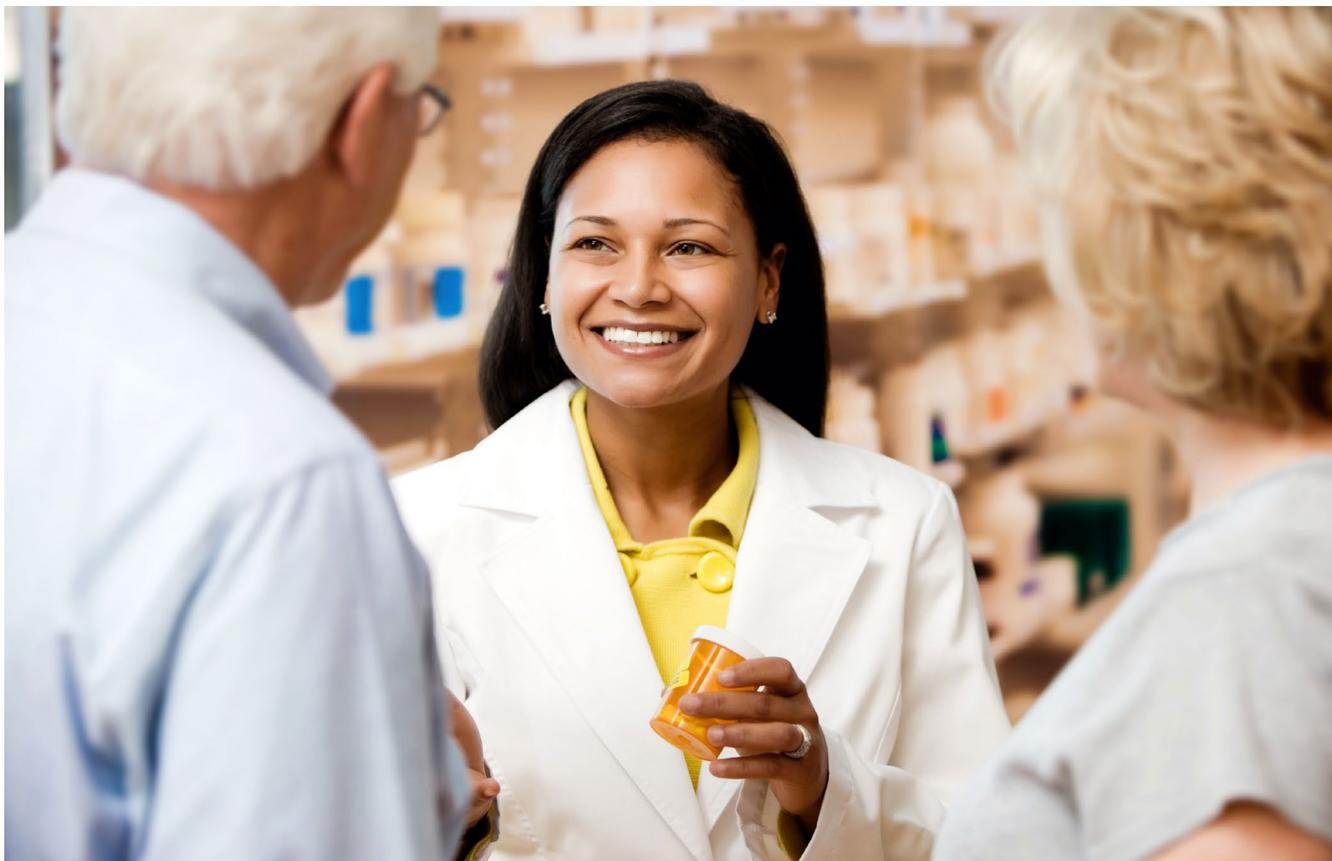
STEP 1:
Screen
patients for fall risk
in the pharmacy.



STEP 2:
Assess
modifiable risk
factors.



STEP 3:
Coordinate Care
with primary care
providers to reduce
identified risk.



Getting Started

KEY CONSIDERATIONS FOR YOUR PHARMACY

Older adults are a large percentage of many pharmacies' patient population, and fall prevention is a service that pharmacies can offer to communities. Fall prevention activities like medication therapy management can easily be integrated into existing pharmacy services. Here are the key steps to help pharmacists implement a fall prevention program:

- Identify a champion
- Conduct an environmental scan
- Assess readiness
- Establish support
- Gather resources
- Develop procedures
- Provide relevant training
- Promote services
- Identify staff roles



IDENTIFY A CHAMPION

Having a champion is key to a successful implementation. A pharmacist or a trained pharmacy technician may serve in this role. An engaged champion will ensure appropriate implementation, documentation, and follow-up.



CONDUCT AN ENVIRONMENTAL SCAN

Plan for what your fall prevention program may include by identifying the portion of the patient population that will benefit from the service and how the service will fit into your existing workflow. An analysis of strengths, weaknesses, opportunities, and threats (SWOT) can identify internal and external factors that may impact implementation.

FALL PREVENTION SERVICE SWOT ANALYSIS

STRENGTHS	Internal factors that may support successful fall prevention services (e.g., resources available, staff already providing other services)
WEAKNESSES	Internal factors that may hinder successful fall prevention services (e.g., poor workflow or documentation procedures)
OPPORTUNITIES	External factors that may support successful fall prevention services (e.g., large older adult population, supportive providers, state laws allowing pharmacists provider status)
THREATS	External factors that may hinder successful fall prevention services (e.g., nearby pharmacies with robust fall prevention services, lack of reimbursement)



ASSESS READINESS

Assess your pharmacy's readiness to provide fall prevention activities and determine steps needed to implement the service. Develop an action plan to optimize strengths and to mitigate weaknesses.

A readiness assessment may include these questions:

- What is the capacity of staff to add a program?
- What resources and trainings are needed (e.g., tools, clinical resources and knowledge, technical skills)?
- Does the service have appropriate leadership support and staff buy-in?
- Does dispensing workflow accommodate service activities (screening, medication review, care coordination)?
- Does the pharmacy provide other enhanced services (e.g., medication therapy management, adherence packaging, point-of-care testing)?
- Are there methods in place to promote the service to patients and providers?
- Are there opportunities for collaboration (e.g., patient advocacy, other healthcare providers, community stakeholders)?





ESTABLISH SUPPORT

Engage pharmacy staff and management to increase excitement around the new initiative. Present an outline of the service that includes an overview of the proposed goals, purpose, key steps, key personnel, and training and resource needs. Spark staff interest by showing how fall prevention can be an opportunity to improve patient outcomes and advance the role of pharmacists in patient care. Encourage staff participation by conducting appropriate training, showcasing new or existing tools that may improve workflow efficiency, and fostering ongoing leadership support.



GATHER RESOURCES

Gather tools and resources to conduct fall prevention activities. Resources may include a copy of the [AGS Beers Criteria for Potentially Inappropriate Medications in Older Adults](#)[®], clinical resources such as [UpToDate](#) and [Lexicomp](#), and the [UNC High Risk Medication Recommendations](#). Visit CDC's [STEADI website](#) to learn more about STEADI; print patient education materials, functional assessment tests and postural hypotension information; and to read the [Coordinated Care Plan to Prevent Older Adult Falls](#) for additional tips for implementing STEADI.



DEVELOP PROCEDURES

Develop procedures that efficiently incorporate fall prevention activities into existing pharmacy workflow. A fall prevention service may be driven by a pharmacy technician, with pharmacists participating in portions that require clinical judgement and expertise.

There are five specific areas where the pharmacy can provide support:

- 1. Patient identification:** Develop a system for identifying patients who may be at risk for falls. This could include everyone aged 65 and older or those 65 and older with a history of polypharmacy. Pharmacies may use automatic, electronic alerts through the pharmacy dispensing software, or filtered reports, to identify eligible patients. Use electronic alerts within the workflow or at the point-of-sale to notify staff if patient is eligible for screening.
- 2. Screening:** Develop a procedure for how and when patients will be screened for fall risk. For example, decide whether you will combine screening with delivery of another service (e.g., prescription drop off/pick up, medication counseling, or in an appointment-based model, such as medication synchronization). Screening can be provided by any member of pharmacy staff. Develop procedures to determine how pharmacists will be alerted when patients screen at risk.
- 3. Medication review:** Develop a process for how medication lists will be gathered from pharmacy dispensing software, primary care providers, or the electronic health record (EHR) when available. The [STEADI-R_x Community Pharmacy Fall Risk Checklist](#) can be used to record information related to fall risk factors and potentially inappropriate medications. Also determine whether discussions with patients regarding their medications will be conducted by phone or face-to-face.
- 4. Follow-up:** Develop a process that outlines how often and when patient follow-up should occur. Determine whether a HIPAA-compliant electronic calendar or other reminder system will be used to ensure follow-ups occur as planned.



PHARMACY TIP

Follow-up

Attempt to contact the patient three times. For hard-to-reach patients, ask for updated contact information at every pharmacy visit or contact known family members to identify an active phone number.

5. **Documentation:** Develop a process for where and how patients' answers to the screening questions, the medication review, concerns about postural hypotension, and any recommendations given to the patient and their providers will be documented. You can document in the patient's EHR or eCare plan if it's available. Document medication review for Medicaid billing if it's applicable.



PROVIDE RELEVANT TRAINING

Successful implementation requires training and retraining. Onboard training for pharmacists should include review of clinical knowledge about falls and how medications can increase fall risk. There should also be comprehensive technical training on STEADI-R_x for all support staff (technicians, interns). All staff that will support the fall prevention program should understand the core clinical components of STEADI-R_x as well as the processes and procedures. Staff may benefit from motivational interviewing. For more on motivational interviewing, see the section on [Best Practices](#).



PROMOTE SERVICES

Marketing directed to patients should be individualized and help patients and caregivers understand the risks associated with falling and inappropriate medication usage, as well as how pharmacists can help mitigate these risks. Consider whether events with national momentum like Falls Prevention Awareness Day (annually in September), Older Americans Month (annually in May), or American Pharmacists Month (annually in October) could help promote the pharmacy's fall prevention program. Pharmacy messaging should highlight how fall prevention offers mutual benefits for patients, providers, and pharmacists through improved patient outcomes and adherence to performance measures. Promoting services to other healthcare providers and community/public health stakeholders can increase your pharmacy's referrals and can help create strong partnerships. The STEADI-R_x [Provider Flyer](#) and [Fax Form](#) are tools that can help inform providers about STEADI-R_x and how pharmacists and providers can work collaboratively to reduce older patients' fall risk.



IDENTIFY STAFF ROLES

Staff roles and responsibilities should be documented for everyone who will support the fall prevention program. This includes, but is not limited to, the roles and responsibilities of the technician, clerk, and pharmacist. Below is a list of roles and responsibilities to consider:

In the program administration, identify who will:

- Ensure staff are trained and retrained as needed
- Be responsible for any promotions to patients and other healthcare providers
- Be responsible for billing (if applicable)



PHARMACY TIP

Documentation

Fall risk screening and medication review are components of fall-risk assessment, a quality performance measure for providers. By sharing information in a useful manner, pharmacists have an opportunity to assist providers and build sustainable models of collaboration.

Motivational interviewing

Try using motivational interviewing if the patient is reluctant to be screened or does not want to complete a medication review. Motivational interviewing can help the patient understand why fall prevention is beneficial.

During the screening process, identify who will:

- Create and maintain a system to identify eligible patients
- Screen patients and document the patient's risk score

For medication review, identify who will:

- Gather patient health and medication information prior to medication review
- Schedule patient appointments and make reminder calls
- Conduct medication reviews (e.g., any pharmacist)
- Document the medication reviews

To support care coordination, identify who will:

- Discuss the fall prevention care plan and provide recommendations to the patient
- Follow up with the patient and healthcare provider
- Document the care coordination activities

**PHARMACY TIP**

A community pharmacy dispensing workflow is fast paced, leaving little time for staff development or provision of clinical services. It is often necessary for pharmacies to create ways of being more efficient in order to provide new services. This may mean using technical staff who traditionally do not have clinical support roles. For example, implementing services such as the appointment-based model for medication synchronization¹ may help improve dispensing workflow while providing technician staff with the opportunity to be more involved in clinical follow-up. In this model, technicians conduct monthly telephone appointments with patients to assess adherence, medication changes, or recent health events. This provides a mechanism for technician-driven follow-up and collection of clinical information. By incorporating technicians, pharmacies create efficiency and offer opportunities for technicians to engage with patients and increase their skillset.

¹www.aphafoundation.org/appointment-based-model



Best Practices



PATIENT COMMUNICATION

Conversations about aging may be difficult for older adults and caregivers. Many older adults, caregivers, and healthcare providers may have a false belief that falls are a normal part of aging. Pharmacists can play a role in exploring misconceptions and focusing on patient empowerment.

Motivational interviewing is a technique that helps guide healthcare providers in understanding how patients perceive and make sense of their conditions and experiences. It can help healthcare providers, including pharmacists, explore ways to improve partnership with the patient to influence behavior change and willingness to collaborate. Building rapport and gaining patient trust are essential before recommending medication or lifestyle changes. Be mindful of how you communicate using verbal, nonverbal, and written techniques:

- **Verbal:** Is your language easy to understand? Do you convey empathy? Is your information devoid of medical jargon?
- **Non-verbal:** Does your expression and posture support your verbal communication? Do you appear open and empathetic?
- **Written:** Are your education materials written using health literacy techniques that make them easy to understand? Do you use education materials to guide patients to the most important information?

CDC offers a [simple guide](#) to plain language health literacy techniques if you are creating your own patient education material. You can also read more about communicating health information to older patients on CDC's [Older Adults Health Literacy](#) page.



PROVIDER COMMUNICATION

It is important to recognize that healthcare providers face workflow challenges. Therefore, it may be helpful to contact primary care providers with whom you share patients to identify the most efficient method for communicating and sharing information. In addition, it may be useful to discuss whether the provider is collecting fall-related information and how the pharmacy can help provide additional information and insight. Request access to the office's EHR if possible to limit the number of faxes, emails, or phone calls shared from the pharmacy. They may allow a member of your staff to visit the office to update patient information if they cannot provide you with remote access. Finally, when making medication recommendations, sharing a comprehensive recommendation that contains drug name, strength, dose, frequency, and number of refills is most helpful.



PHARMACY TIP

When communicating with a provider consider the following:

General communication

- Develop trust with providers by sharing high-quality assessments and recommendations
- Determine who within the office should be your point of contact
- Determine the best way to communicate
- Use pharmacy branding (i.e., logo) on external forms to build trust and brand recognition
- Maintain open communication
- Accept constructive criticism
- Address miscommunication immediately

Sharing recommendations

- Determine what information is most valuable to the providers
- Specify whether information was reported by the patient or observed by the pharmacist
- Collect clinical information (i.e., medication risks)
- Offer comprehensive recommendations (i.e., drug name, strength, dose, frequency, refills)
- Prioritize recommendations
- Support recommendation with appropriate and clear background information
- Provide pharmacist's contact information and availability
- Use legible handwriting and avoid abbreviations

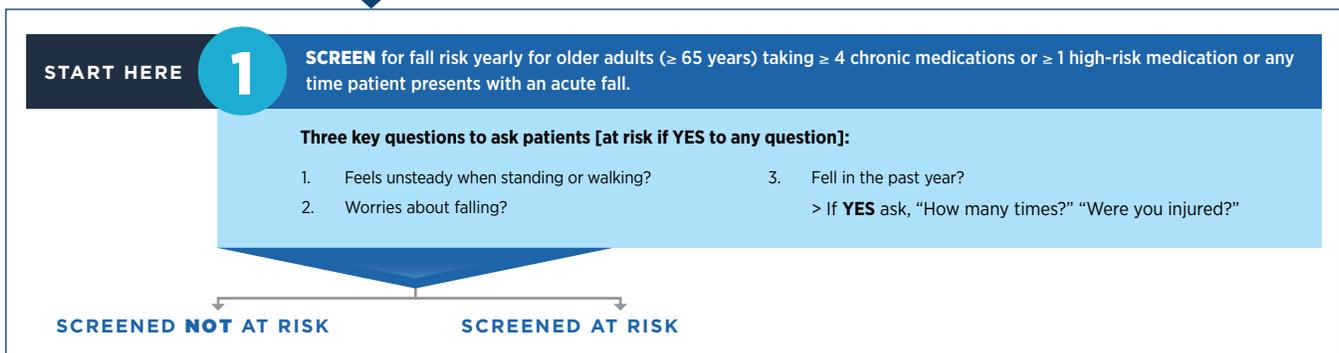


STEADI-R_x: Three Critical Steps



In the previous section, we presented a series of steps that pharmacies can take to implement a STEADI-R_x based fall prevention program. This section reviews the core steps of the [STEADI-R_x Algorithm](#).

A successful pharmacy-based fall prevention program includes screening, conducting the assessment for patients who are at risk, and coordinating care to reduce falls among those who are at risk. For each step, we point out how the step aligns with the JCPP.



STEP ONE: SCREEN FOR FALL RISK

In step one, older patients (age 65 and older) are screened for fall risk. This step is in line with the JCPP process referred to as *collection*. In this step, pharmacists collect information to better understand the patient’s relevant medical history and clinical status.

Pharmacy staff should identify older patients who:

- Take four or more chronic medications
- Take one or more high-risk medications, or
- Who present with an acute fall

Pharmacy staff screen the patient for fall risk if any of these criteria are met. While there are many ways to screen for fall risk, CDC’s Three Key Questions can be a quick and easy way to assess risk. The patient is asked the following questions:

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

It's important to document the patient's answers to the Three Key Questions and to document whether the patient was given any educational material on fall prevention. The [Community Pharmacy Fall Risk Checklist](#) can be used to record this information for internal use.

If the patient says yes to any of the questions, they are considered at risk for falling. Pharmacy staff are then encouraged to complete step two of the [STEADI-Rx Algorithm](#).

If they say no to all questions, it's important to reduce future risk by educating the patient about falls. CDC's [What You Can Do to Prevent Falls](#) brochure and the [Chair Rise Exercise](#) both offer information on how to prevent future fall risk. Encourage patients to participate in home- or community-based exercise, especially those that focus on improving gait, strength, and balance, like Tai Chi. The [National Council on Aging](#) maintains a list of state falls prevention coalitions. State coalitions can help identify local programs for your patients. Rescreen patients annually for fall risk.



Key Tips for Screening

1. Create alerts to notify pharmacy staff at point-of-dispensing or point-of-sale when a patient is eligible for fall risk screening. Use a [STEADI-Rx Auxiliary Label](#) if an electronic alert is not available.
2. Train technicians, clerks, students, and delivery drivers to screen patients.
3. Help patients understand why you are asking about their history of falls. Explain your role as a patient care champion and provide empowering education about falls prevention.
4. Reduce pharmacy burden by combining screening with another service (e.g., medication therapy management).



STEP TWO: ASSESS MODIFIABLE RISK FACTORS

In step two, pharmacists assess medication-related fall risk factors. This step is in line with the JCPP process referred to as *assess*. In this step, pharmacists identify medications that may increase fall risk by:

- Scheduling a medication review session with the patient
- Reviewing medications utilizing the [Community Pharmacy Fall Risk Checklist](#) and a geriatric-specific medication decision-support tool (e.g., UNC High Risk Medication Recommendations or the AGS Beers Criteria®)
- Identifying any medication therapy problems (MTPs) associated with the use of the identified high-risk medications

When reviewing medications, pay special attention to medication classes that have been shown to increase fall risk. These include:

- Anticonvulsants
- Antidepressants
- Antihypertensives
- Antipsychotics
- Antispasmodics
- Benzodiazepines
- Opioids

2

ASSESS patient's modifiable risk factors.

Document answers to three key questions and education provided to patient

Identify medications that increase fall risk

- Schedule medication review with patient
- Review medications utilizing the *Community Pharmacy Falls Risk Checklist* and a geriatric-specific medication decision-support tool (e.g., The UNC High Risk Medication Recommendations or the Beers Criteria)
- Identify any medication therapy problems (MTPs) associated with the use of high-risk medications

Inquire about postural hypotension

- Symptoms of lightheadedness or dizziness from lying to standing?
- Can assess for postural hypotension by measuring blood pressure from lying to standing

Reduce risk by recommending effective prevention strategies

- Educate patient on fall prevention
- Refer to community exercise or fall prevention program



MEDICATION REVIEW:

The information below can help inform the medication review.

- Medical history
- Active medication list (prescription, over-the-counter, and herbal medications)
- Socioeconomic factors
- Functional status

When reviewing the patient's medications, assess each potentially inappropriate medication for accurate dose, correct indication, efficacy and safety, possible adverse effects, and for the patient's adherence. The AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults and UNC High-Risk Medication Recommendation Guide¹¹ provide guidance for stopping, switching, or reducing medications.

It's also important to inquire about postural hypotension, a risk factor for falls. Postural hypotension is defined as a drop in systolic blood pressure of ≥ 20 mm Hg, a diastolic blood pressure of ≥ 10 mm Hg, or experiencing lightheadedness or dizziness on changing positions (supine to sitting and sitting to standing).¹²⁻¹³

To assess for postural hypotension:

1. Have the patient lie down for 5 minutes, then check blood pressure.
2. Then, have the patient stand up for one minute, and repeat the blood pressure check.
3. After the patient stands for 3 minutes, repeat the blood pressure check.

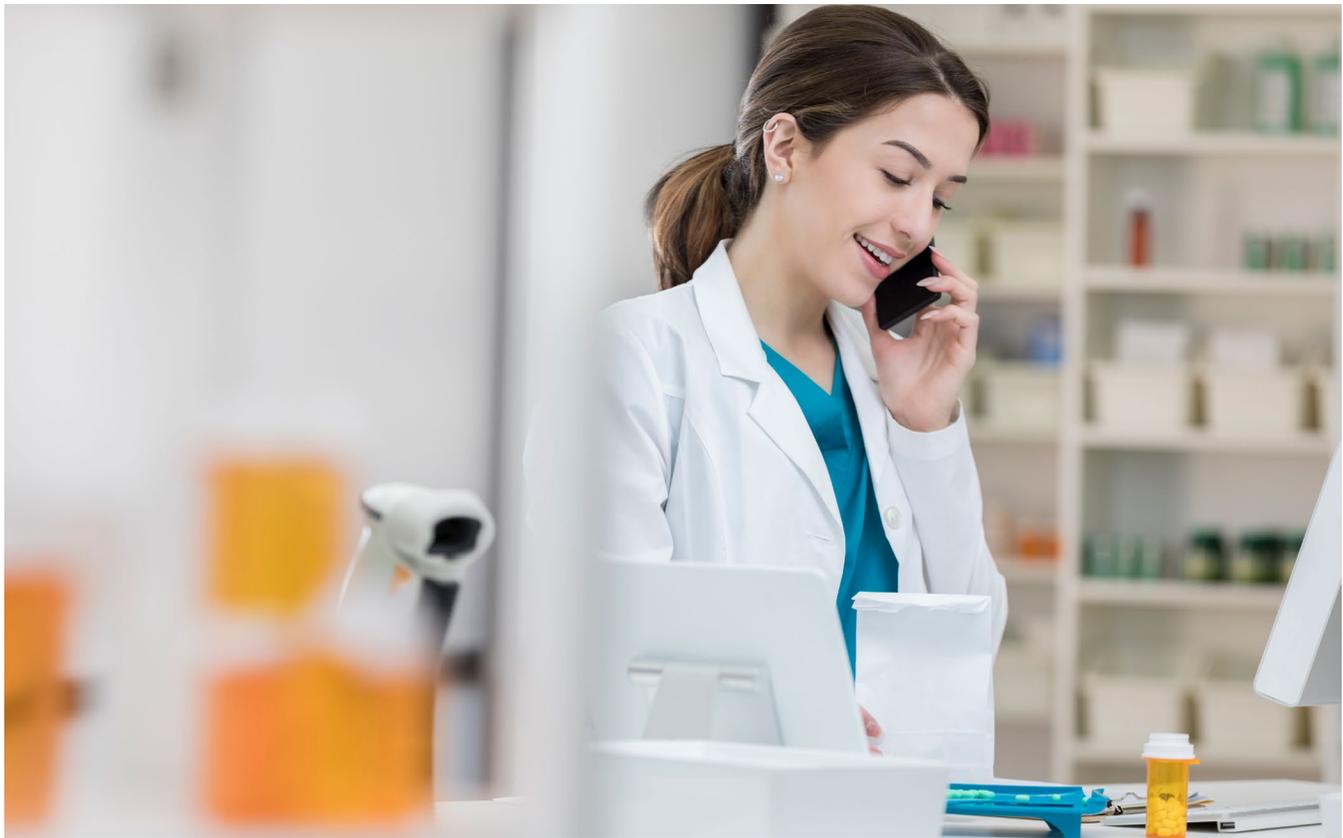
Pharmacy staff can also reduce risk by recommending other prevention strategies. These strategies include educating patients on fall prevention and referring them to evidence-based community fall prevention programs. The [National Council on Aging](#) maintains a list of state falls prevention coalitions. State coalitions can help identify local programs in your area.

With the information from step two, pharmacists can coordinate with primary care providers or other prescribing providers, as described in step three.



Key Tips for Assessing Information

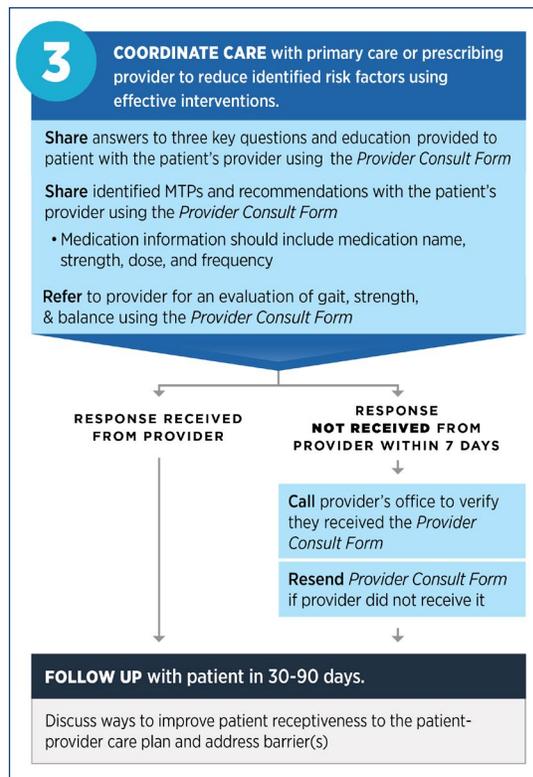
1. Obtain information from multiple sources (e.g., patients, caregivers, dispensing profile, primary care provider, or controlled substance monitoring database).
2. Use technicians to collect active medication list from dispensing profile or primary care provider prior to patient appointment.
3. Schedule patients for telephone or face-to-face appointments to conduct a medication review.
4. Use the [Community Pharmacy Fall Risk Checklist](#) to help collect information related to fall risk factors, including medications that might increase fall risk.



STEP THREE: COORDINATE CARE

In step three, pharmacists coordinate care with primary care or other prescribers to reduce fall risk identified through the medication review. These actions align with the JCPP processes referred to as *plan*, *implement*, and *follow-up*.

When developing recommendations, document the identified medication therapy problems. This documentation should include the name of the medication, strength, dose, frequency, and remaining refills. Also provide any background information that could help providers understand the need for your recommended changes. Include answers to the patient's Three Key Questions and a description of the fall prevention education you gave the patient.



The [Provider Consult—Medication](#) form was developed to help you document and share your identified medication therapy problems and recommendations with the provider.

EXAMPLE PHARMACIST RECOMMENDATION:

“Patient reports recently experiencing several injurious falls and reports symptoms of dizziness and sedation. Please consider switching from paroxetine to citalopram, if appropriate, which has a better safety profile in relation to falls. I recommend paroxetine taper and washout prior to switching to citalopram. In addition, please assess gait, balance, and strength at next visit. The patient was educated about the importance of proactive falls prevention and provided with educational resources.”

Not all patients will need their medications modified. However, the AGS/BGS clinical guidelines on the prevention of falls among older adults recommend that ALL patients who screened at-risk should be assessed for additional risk factors. The [Provider Consult—Fall Screening](#) form offers a way to inform the provider that the patient screened at risk for falls and that additional fall risk assessment may be needed, even if medication changes are not.

Healthcare provider offices may receive large quantities of daily faxes, leading to recommendations being lost or misplaced. Therefore, it is important to follow-up with providers. The [Provider Flyer](#) and [Fax Form](#) can be used to inform pharmacists and healthcare providers about STEADI-R_x. The [Provider Flyer](#) includes information on falls burden, a description of the STEADI-R_x initiative, and how STEADI-R_x works. The [Fax Form](#) includes information on STEADI-R_x and how the pharmacist can work collaboratively with the provider to reduce patients’ fall risk.

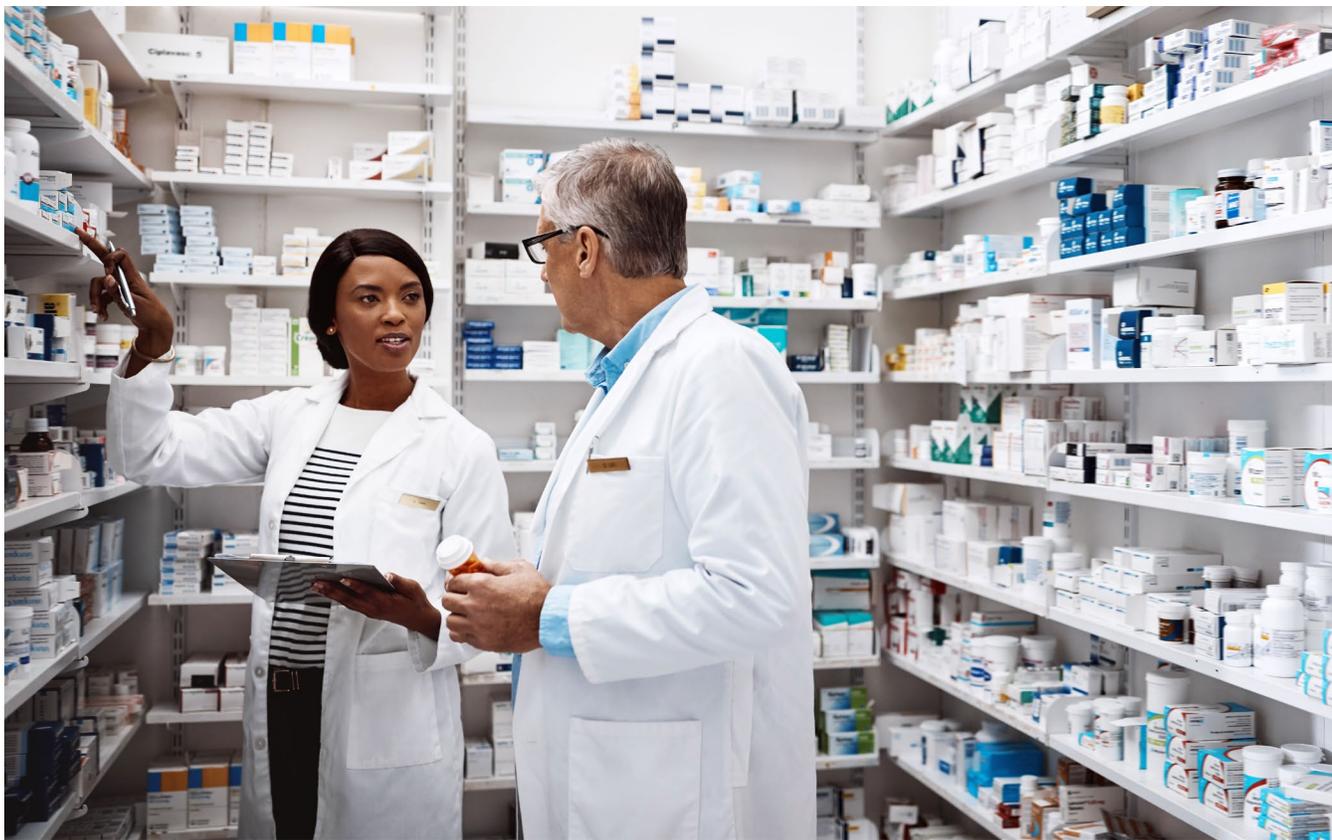
When determining an appropriate time for following up with a patient consider the following:

- When is follow-up needed?
- What type of follow-up is required (e.g., face-to-face, phone, electronic)?
- Does follow-up need to be one time or ongoing?

You may want to create alerts in your dispensing software to notify staff at point-of-dispensing or point-of-sale whether a patient is due for follow-up. If an alert is not available in either of these systems, a paper or HIPAA-compliant electronic calendar can be used.

Key Tips for Coordinating Care

1. Contact provider offices to determine if they would like to receive recommendations by fax, electronic messaging, or phone. Ask them if you can share a copy, even if they prefer phone, to ensure appropriate reciprocal documentation.
2. Provide adequate background information to help providers understand the need for changes to therapy.



STEADI-R_x Tools

In the previous section, we referred to STEADI-R_x tools that can be used to facilitate fall risk screening, assessment, and coordination of care between the pharmacy and healthcare providers.

The [STEADI-R_x Algorithm](#) describes three steps pharmacists can take to reduce fall risk among their older patients: **screen**, **assess**, and **coordinate care**. Each step is in line with the JCPP.

The [Provider Flyer](#) and [Fax Form](#) can be used to inform pharmacists and healthcare providers about STEADI-R_x.

The [Community Pharmacy Fall Risk Checklist](#) offers a way to collect and document a patient's fall risk factors and potentially inappropriate medications. This tool is for internal use only and should not be shared with patients or other providers.

STEADI-R_x provides two forms that can be used to inform a healthcare provider that a patient screened “at risk” for falling. The [Provider Consult—Fall Screening](#) form is used when the patient is not currently taking any medications that could increase their fall risk, but additional fall risk assessment may be warranted given the screening results. The [Provider Consult—Medication](#) form is used to recommend changes to the patient's medications based on the pharmacist's medication review.

The [STEADI-R_x Auxiliary Labels](#) can be affixed to medication bottles or bags. They can encourage communication about falls and fall prevention among pharmacy staff, older adults, and their caregivers. Labels can be printed on self-adhesive label paper where adhesives are 1.75 inches by 0.5 inches (80 labels per sheet).

A copy of each tool is available in this guide and electronically on the [STEADI-R_x website](#).

STEADI-R_x ALGORITHM

STEADI-R_x

Community Pharmacy Algorithm for Fall Risk Screening, Assessment, and Care Coordination

START HERE

1

SCREEN for fall risk yearly for older adults (≥ 65 years) taking ≥ 4 chronic medications or ≥ 1 high-risk medication or any time patient presents with an acute fall.

Three key questions to ask patients [at risk if YES to any question]:

1. Feels unsteady when standing or walking?
2. Worries about falling?
3. Fell in the past year?
> If **YES** ask, "How many times?" "Were you injured?"

SCREENED **NOT** AT RISK

PREVENT future risk by recommending effective prevention strategies.

- Educate patient on fall prevention
- Refer to community exercise or fall prevention program
- Reassess yearly or any time patient presents with an acute fall

Document answers to three key questions and education provided to patient

Share answers to three key questions with the patient's primary care provider using the *Provider Consult Form*

SCREENED AT RISK

2

ASSESS patient's modifiable risk factors.

Document answers to three key questions and education provided to patient

Identify medications that increase fall risk

- Schedule medication review with patient
- Review medications utilizing the *Community Pharmacy Falls Risk Checklist* and a geriatric-specific medication decision-support tool (e.g., The UNC High Risk Medication Recommendations or the Beers Criteria)
- Identify any medication therapy problems (MTPs) associated with the use of high-risk medications

Inquire about postural hypotension

- Symptoms of lightheadedness or dizziness from lying to standing?
- Can assess for postural hypotension by measuring blood pressure from lying to standing

Reduce risk by recommending effective prevention strategies

- Educate patient on fall prevention
- Refer to community exercise or fall prevention program

3

COORDINATE CARE with primary care or prescribing provider to reduce identified risk factors using effective interventions.

Share answers to three key questions and education provided to patient with the patient's provider using the *Provider Consult Form*

Share identified MTPs and recommendations with the patient's provider using the *Provider Consult Form*

- Medication information should include medication name, strength, dose, and frequency

Refer to provider for an evaluation of gait, strength, & balance using the *Provider Consult Form*

RESPONSE RECEIVED FROM PROVIDER

RESPONSE NOT RECEIVED FROM PROVIDER WITHIN 7 DAYS

Call provider's office to verify they received the *Provider Consult Form*

Resend *Provider Consult Form* if provider did not receive it

FOLLOW UP with patient in 30-90 days.

Discuss ways to improve patient receptiveness to the patient-provider care plan and address barrier(s)



PROVIDER FLYER

STEADI-R_x

PREVENT FALLS Collaborate with Community Pharmacists



1 in 4 older adults reports falling each year.

More than **8 MILLION**

of those falls require medical treatment or restrict activity for at least a day.



More than **32,000**

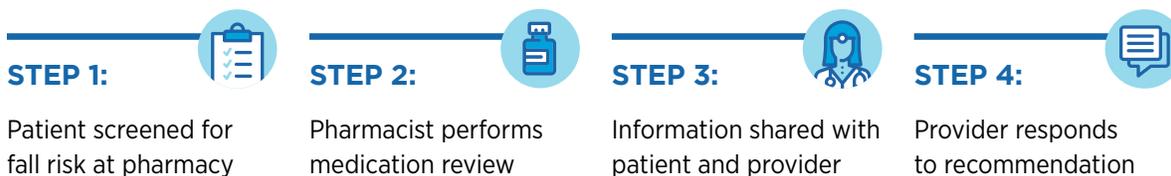
older adults die each year because of a fall — that's more than 88 older adults every day.



What does this mean for your practice?

- **STEADI-R_x** is a pharmacy initiative to reduce the risk of falls in older adults through collaboration between healthcare providers and pharmacists.
- Community pharmacists will screen older adults using the three STEADI questions and review the patient's profile to identify medications that may increase the risk of falls.
- Collaboration with a community pharmacist can help you meet **quality metrics** related to falls and high-risk medications and improve fall-related outcomes.

How **STEADI-R_x** works:



2020

COMMUNITY PHARMACY FALL RISK CHECKLIST

STEADI-R_x

Community Pharmacy Fall Risk Checklist

Patient: _____

Date of Birth: _____

Date: _____

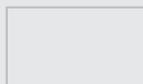
Fall Risk Factor(s) Identified

FALL HISTORY	PRESENT?		NOTES
Any falls in the past year?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Worries about falling?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Feels unsteady when standing or walking?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
POSTURAL HYPOTENSION			
Patient-reported symptoms of lightheadedness or dizziness from lying to standing?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

MEDICATION CLASSES WITH FALL RISK	MEDICATION(S) Include medication name, dosage prescribed, and administration directions.	PRESCRIBED BY:
Anticonvulsants		
Antidepressants		
Antihypertensives		
Antipsychotics		
Antispasmodics		
Benzodiazepines		
Opioids		
Sedative hypnotics		
Tricyclic antidepressants		
Other (e.g., OTC agents)		

Notes:

STEADI-R_x is a pharmacy initiative to reduce the risk of falls in older adults through collaboration between healthcare providers and pharmacists. It was developed by the University of North Carolina Eshelman School of Pharmacy and School of Medicine through a grant from the Centers for Disease Control and Prevention.



FAX FORM

FAX FORM

Provider:	Pharmacist:
Fax:	Fax:
Phone:	Phone:
Subject: Fall Risk Medication Review	Date:
No. Pages:	
Comments: Contains Sensitive Patient Information	

PREVENT FALLS Collaborate with Community Pharmacists

What does this mean for your practice?

- ▶ **STEADI-R_x** is a pharmacy initiative to reduce the risk of falls in older adults through collaboration between healthcare providers and pharmacists. It was developed by the University of North Carolina Eshelman School of Pharmacy and School of Medicine through a grant from the Centers for Disease Control and Prevention.
- ▶ Community pharmacists will screen older adults using the three STEADI questions and review the patient's profile to identify medications that may increase the risk of falls.
- ▶ Collaboration with a community pharmacist can help you meet **quality metrics** related to falls and high-risk medications and improve fall-related outcomes.
- ▶ We request that you review the pharmacist's recommendations and fax a response back to the pharmacy. Additional information is available at www.cdc.gov/steady.

How STEADI-R_x works:



STEADI-R_x

2019

PROVIDER CONSULT—FALL SCREENING

STEADI-Rx FORM

Provider Consult - Fall Screening

Patient:

Date of Birth:

Date:

Provider:

Fax:

Fall screening and medication review results:

The patient's pharmacist has reviewed the patient's fall-related risk factors and current medications. Based on information available to the pharmacy, this patient is not currently taking any prescription or non-prescription medications known to increase the risk of falling. Other fall risk factors are identified below.

Fall Risk Factor(s) Identified

FACTOR PRESENT?

Any falls in the past year?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Worries about falling?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Feels unsteady when standing or walking?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Symptoms of lightheadedness or dizziness from lying to standing?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Taking 4+ chronic medications?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Taking 1+ high-risk medication(s)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Evaluation of Gait, Strength, & Balance

PLEASE INDICATE YOUR RESPONSE

According to AGS/BGS 2010 Fall Prevention Guidelines, a patient may benefit from an evaluation of gait, strength, and balance when fall risk factors are present.

PLAN TO EVALUATE?

Yes No

Please acknowledge your receipt of this information and return to the pharmacy:

Provider Signature:

Date:

Pharmacist:

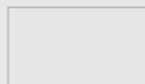
Pharmacy:

Available by Fax:

or Phone:

On:

STEADI-Rx is a pharmacy initiative to reduce the risk of falls in older adults through collaboration between healthcare providers and pharmacists. It was developed by the University of North Carolina Eshelman School of Pharmacy and School of Medicine through a grant from the Centers for Disease Control and Prevention.



2019

PROVIDER CONSULT—MEDICATION

STEADI-Rx FORM

Provider Consult - Medication

Patient:	
Date of Birth:	Date:
Provider:	Fax:

Fall screening and medication review results:
 After reviewing this patient's fall-related risk factors and current medications, we have identified medication(s) that may increase the patient's risk for a fall. **Please see recommendation(s) below.**

Fall Risk Factor(s) Identified	FACTOR PRESENT?	
Any falls in the past year?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Worries about falling?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Feels unsteady when standing or walking?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Symptoms of lightheadedness or dizziness from lying to standing?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Taking 4+ chronic medications?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Taking 1+ high-risk medication(s)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Evaluation of Gait, Strength, & Balance According to AGS/BGS 2010 Fall Prevention Guidelines, a patient may benefit from an evaluation of gait, strength, and balance when fall risk factors are present.	PLEASE INDICATE YOUR RESPONSE	
	PLAN TO EVALUATE?	
	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Medication Therapy Problem	Recommendation	PLEASE INDICATE YOUR RESPONSE
		<input type="checkbox"/> Accept <input type="checkbox"/> Decline <input type="checkbox"/> Plan to discuss with patient
		<input type="checkbox"/> Accept <input type="checkbox"/> Decline <input type="checkbox"/> Plan to discuss with patient
		<input type="checkbox"/> Accept <input type="checkbox"/> Decline <input type="checkbox"/> Plan to discuss with patient

Please acknowledge your receipt of these recommendations and return to the pharmacy:

Provider Signature: _____ Date: _____

Pharmacist:	Pharmacy:
Available by Fax:	or Phone: _____ On: _____

CASE STUDY

Carolina Booker

Mrs. Booker is a 76-year-old woman who lives independently in her own home. She has come to the community pharmacy to pick up her medications.



SCREEN FOR FALL RISK (STEADI-R_x STEP 1)

Mrs. Booker is taking six medications, which may increase her fall risk. The pharmacy technician screens Mrs. Booker using the STEADI Three Key Questions before ringing up her prescriptions. Mrs. Booker says “yes” to the question, “I have fallen in the past year.”

Mrs. Booker reports she fell the previous week. She was not hurt and did not seek medical attention. She was walking outdoors with a friend when she tripped over a crack in the sidewalk and fell. This was her first fall.



ASSESS PATIENT'S MODIFIABLE RISK FACTORS (STEADI-R_x STEP 2)

The technician alerts the pharmacist that Mrs. Booker screened positive for fall risk. The pharmacist performs a comprehensive medication review using the *Community Pharmacy Fall Risk Checklist*.

Mrs. Booker takes the following medications:

- Fluoxetine 40 mg by mouth daily
- Lorazepam 0.5 mg–1 mg by mouth twice daily, as needed
- Levothyroxine 75 mcg by mouth daily
- Hydrochlorothiazide 25 mg by mouth daily (recently increased from 12.5 mg daily)
- Docusate 200 mg by mouth daily
- Acetaminophen 500 mg by mouth four times daily, as needed for pain

Mrs. Booker reports using lorazepam 1–2 times per week. She reports taking it for many years with no problems. She takes acetaminophen 3–4 times per week. When asked about her adherence, she states that she might miss her fluoxetine once a month. She currently uses a pill box. The pharmacist asks Mrs. Booker if she has been dizzy or lightheaded upon sitting up or standing. Mrs. Booker states she often has dizziness when getting out of bed in the morning. It's been going on for a few weeks. She reports the only change to her medicines is that she is now taking an increased dose of her blood pressure medication.

Seated blood pressure measured in the pharmacy today was 100/67 mmHg.

The pharmacist makes the following assessment:

- Fluoxetine, lorazepam, and hydrochlorothiazide are potentially inappropriate medications.
- Fluoxetine is a long-acting SSRI known to cause sleep disturbances and is a risk factor for falls.
- Lorazepam is a benzodiazepine with excess risk of sedation and dizziness and a risk factor for falls. Although the patient reports taking it for years, lorazepam is not indicated for routine use in older adults.
- Her blood pressure is low and she reports symptoms of dizziness when getting up from the bed in the morning, indicative of potential postural hypotension.
- Hydrochlorothiazide was increased from 12.5 to 25 mg two weeks ago and is a likely cause of her postural hypotension.
- She has fallen in the past year, which is a strong predictor for a recurrent fall.



COORDINATE CARE (STEADI-R_x STEP 3)

The pharmacist discusses the medication list and all potential medication therapy problems with Mrs. Booker. The pharmacist offers to initiate a conversation with Mrs. Booker's primary care provider to make a recommendation for alternative therapies.

Mrs. Booker agrees with the pharmacist and gives permission to discuss changes to her medications with her primary care doctor.

The pharmacist then reviews the STEADI patient educational brochures *What to Do to Prevent Falls* and *Check for Safety* with the patient. The pharmacist explains to Mrs. Booker that due to her risk of falling, she is suggesting she follow-up with her primary care provider to assess other potential fall risk factors.

Before ending the interview, the pharmacist sets up an appointment to follow up with Mrs. Booker in one month to assess medication changes, sleep, symptoms of dizziness, or any new symptoms that may have developed.

After Mrs. Booker leaves, the pharmacist uses the *Fax Form* and *Provider Consult Form—Medication* to share screening results and medication recommendations with Mrs. Booker's primary care provider.



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