STRIDE INTERVENTION: FALLS CARE MANAGEMENT

The STRIDE intervention **focused on quality improvement** and included a multifactorial risk assessment and individually tailored set of recommendations/interventions. The intervention utilized a primary care co-management model with nurse Falls Care Managers (FCM) that follows four steps:

- Risk assessment by a FCM using a standardized structured visit note.
- Use of structured visit notes and algorithms to develop an individualized Falls Care Plan by the FCM presented to the patient's primary care physician (PCP) for modification and approval, to include:
  - Fall risk reduction interventions that the FCM directly implement;
  - Recommendations that the PCP implement (e.g., medication changes);
  - Referrals to health providers or community-based organizations for more detailed assessment or implementation of specific components identified in the Risk Assessment.
- Explanation of identified risks to the patient (and caregiver, when appropriate) and suggested interventions, using motivational interviewing to elicit patient preferences and readiness to participate in treatments.
- Ongoing monitoring of response to treatment as indicated in the Care Plan and reassessment of risk factors at scheduled intervals by the FCM with revision of the Care Plan as needed.

The intervention data are from the following three areas:

1. **Initial Assessment by the FCM**

2. **Data from physician examination and fall risk factor protocols**

3. **Patient's priority of risk factor and action steps noted by FCM**

ASSESSMENTS

Assessment Information	
Assessment Date [ai_assess_date]	M M D D Y Y Y Y ☐☐ ☐☐ [2][0]☐☐
Assessment Type [ai_assess_type] **NOTE: Visit information: v#_ (# = 0,6,12,24,36,ah)**	☐₁ Initial ☐₂ Ad Hoc ☐₆ 6-Month ☐₁₂ 12-Month ☐₂₄ 24-Month ☐₃₆ 36-Month
Assessment Location [ai_assess_loca]	☐₁ Telephone ☐₂ Home visit ☐₃ Clinical visit
Physical Examination	
SPPB	
SPPB completed? [pe_sppb]	☐₁ Yes ☐₂ No ☐₉ Not Assessed
SPPB Chair (0-4) [pe_chair]	

SPPB Balance (0-4) **[pe_bal]**	
SPPB Gait Speed (0-4) **[pe_gaitspeed]**	
SPPB total (0-12) **[pe_total]**	
Unsafe Gait **[pe_unsafegait]**	☐1 No ☐2 Yes – Asymmetry ☐3 Yes - Weakness ☐9 Not Assessed
Cognitive	
Was cognition assessed? **[pe_cognitive]**	☐1 Yes ☐2 No
3-item recall (0-3) **[pe_3itemrecall]**	
Clock drawing test (0-2) **[pe_clocktest]**	
Mini-cog total score (0-5) **[pe_mini_cog]**	
Blood Pressure	
Was BP assessed? **[pe_bp]**	☐1 Yes ☐2 No
BP Supine – Systolic mmHg **[pe_bp_supine_systolic]**	
BP Supine – Diastolic mmHg **[pe_bp_supine_diastolic]**	

HR Supine **[pe_hr_supine]**	
BP Standing 1minute – Systolic mmHg **[pe_bp_stand1_systolic]**	
BP Standing 1minute – Diastolic mmHg **[pe_bp_stand1_diastolic]**	
HR Standing 1minute **[pe_hr_stand1]**	
BP Standing 3minutes – Systolic mmHg **[pe_bp_stand3_systolic]**	
BP Standing 3minutes – Diastolic mmHg **[pe_bp_stand3_diastolic]**	
HR Standing 3minutes **[pe_hr_stand3]**	
Systolic BP drop of >20 mmHg at 1 or 3 minutes **[pe_bp_std13change]**	☐$_1$ Yes ☐$_2$ No ☐$_9$ Not Assessed
Symptoms with BP measures **[pe_bp_symptoms]**	☐$_1$ Yes ☐$_2$ No ☐$_9$ Not Assessed
Unsteady **[pe_bp_symptype_unsteady]**	☐$_1$ Yes ☐$_2$ No ☐$_9$ Not Assessed

Lightheaded **[pe_bp_symptype_ltheaded]**	☐₁ Yes ☐₂ No ☐₉ Not Assessed
Vertigo **[pe_bp_symptype_vertigo]**	☐₁ Yes ☐₂ No ☐₉ Not Assessed
Foot Exam	
Foot abnormalities? **[pe_footabnormal]**	☐₁ Yes ☐₂ No ☐₉ Not Assessed
Foot exam: Stiffness **[pe_footexam_stiffness]**	☐₁ Yes ☐₂ No
Foot exam: swelling **[pe_footexam_swelling]**	☐₁ Yes ☐₂ No
Foot exam: numbness **[pe_footexam_numbness]**	☐₁ Yes ☐₂ No
Foot exam: ulcer **[pe_footexam_ulcer]**	☐₁ Yes ☐₂ No
Foot exam: bunion or hammertoe **[pe_footexam_bunionht]**	☐₁ Yes ☐₂ No

Foot exam: corn or calluses **[pe_footexam_corncalluses]**	☐₁ Yes ☐₂ No
Foot exam: nail abnormalities **[pe_footexam_nailabnormal]**	☐₁ Yes ☐₂ No
Footwear **[pe_footwear]**	☐₁ No concerns ☐₂ Footwear concerns ☐₉ Not Assessed
Mini-cog total score (0-5) **[pe_mini_cog]**	

RISK FACTORS	
Strength, gait, and balance **[rfc_sgb]**	☐₁ Minimal mobility problem (CBE) ☐₂ Minimal mobility problem (Outpatient PT) ☐₃ Minimal mobility problem (Outpatient PT or CBE) ☐₄ Minimal mobility problem, pain limits function (Outpatient PT) ☐₅ Moderate mobility problem (Home or Outpatient PT) ☐₆ Moderate mobility problem (Home or Outpatient PT or CBE) ☐₇ Severe mobility problem (Home or Outpatient PT) ☐₈ Unable to determine (missing data)
Strength, gait, and balance Patient Priority **[rfc_p_sgb]**	☐₁ None ☐₂ Not Priority ☐₃ Priority

Strength, gait, and balance Exercise Action A **[rfc_exercise_rx_a]**	☐₁ None ☐₂ CBE ☐₃ Outpatient PT ☐₄ Home Health PT ☐₅ Home Exercises ☐₆ Other (i.e., Yoga, Personal Trainer)
Strength, gait, and balance Exercise Action B **[rfc_exercise_rx_b]**	☐₁ None ☐₂ CBE ☐₃ Outpatient PT ☐₄ Home Health PT ☐₅ Home Exercises ☐₆ Other (i.e., Yoga, Personal Trainer)
Strength, gait, and balance Exercise Action C **[rfc_exercise_rx_c]**	☐₁ None ☐₂ CBE ☐₃ Outpatient PT ☐₄ Home Health PT ☐₅ Home Exercises ☐₆ Other (i.e., Yoga, Personal Trainer)
Medication **[rfc_medication]**	☐₁ No Medication Risk ☐₂ Medication Risk Factor FRIDs ☐₃ Medication Risk Factor Symptoms ☐₄ Medication Risk Factor Symptoms, FRIDs ☐₅ Medication Risk Factor Adherence

	☐6 Medication Risk Factor Adherence, FRIDs
	☐7 Medication Risk Factor Adherence, Symptoms
	☐8 Medication Risk Factor Adherence, Symptoms, FRIDs
	☐9 Medication Risk Factor Alcohol
	☐10 Medication Risk Factor Alcohol, FRIDs
	☐11 Medication Risk Factor Alcohol, Symptoms FRIDs
	☐12 Medication Risk Factor Alcohol, Symptoms, FRIDs
	☐13 Medication Risk Factor Alcohol, Adherence
	☐14 Medication Risk Factor Alcohol, Adherence, FRIDs
	☐15 Medication Risk Factor Alcohol, Adherence, Symptoms
	☐16 Medication Risk Factor Alcohol, Adherence, Symptoms, FRIDs
	☐20 Unable to determine (missing data)
Medication Patient Priority **[rfc_p_medication]**	☐1 None ☐2 Not Priority ☐3 Priority
Medication Medication Action A **[rfc_med_rx_a]**	☐1 None ☐2 Refer to Pharmacist ☐3 Refer to Site Clinical Director ☐4 Refer to PCP ☐5 Provide general medication handout ☐6 Discuss adherence concerns ☐7 Discuss medications patient may want to modify ☐8 Pharm D review previously done ☐9 No change in medication

Medication Medication Action b **[rfc_med_rx_b]**	$\square_1$ None $\square_2$ Refer to Pharmacist $\square_3$ Refer to Site Clinical Director $\square_4$ Refer to PCP $\square_5$ Provide general medication handout $\square_6$ Discuss adherence concerns $\square_7$ Discuss medications patient may want to modify $\square_8$ Pharm D review previously done $\square_9$ No change in medication
Medication Medication Action C **[rfc_med_rx_c]**	$\square_1$ None $\square_2$ Refer to Pharmacist $\square_3$ Refer to Site Clinical Director $\square_4$ Refer to PCP $\square_5$ Provide general medication handout $\square_6$ Discuss adherence concerns $\square_7$ Discuss medications patient may want to modify $\square_8$ Pharm D review previously done $\square_9$ No change in medication
Post Hypotension **[rfc_posthypotension]**	$\square_1$ None $\square_2$ Symptoms but no Change in BP $\square_3$ Change in BP but no Symptoms $\square_4$ Symptoms and Change in BP $\square_{20}$ Unable to determine (missing data)

Post Hypotension Patient Priority **[rfc_p_posthyptension]**	$\square_1$ None $\square_2$ Not Priority $\square_3$ Priority
Post Hypotention Post Hypotension Action A **[rfc_pos_rx_a]**	$\square_1$ None $\square_2$ Education about behavior changes $\square_3$ Recheck BP in 2 weeks $\square_4$ Electronic note to PCP $\square_5$ PCP notified immediately $\square_6$ Known diagnosis. Education material reviewed
Post Hypotention Post Hypotension Action B **[rfc_pos_rx_b]**	$\square_1$ None $\square_2$ Education about behavior changes $\square_3$ Recheck BP in 2 weeks $\square_4$ Electronic note to PCP $\square_5$ PCP notified immediately $\square_6$ Known diagnosis. Education material reviewed
Post Hypotention Post Hypotension Action C **[rfc_pos_rx_c]**	$\square_1$ None $\square_2$ Education about behavior changes $\square_3$ Recheck BP in 2 weeks $\square_4$ Electronic note to PCP $\square_5$ PCP notified immediately $\square_6$ Known diagnosis. Education material reviewed
Vision **[rfc_vision]**	$\square_1$ None $\square_2$ Vision Risk $\square_{20}$ Unable to determine (missing data

Vision Patient Priority **[rfc_p_vision]**	☐₁ None ☐₂ Not Priority ☐₃ Priority
Vision Vision Action A **[rfc_vsn_rx_a]**	☐₁ None ☐₂ Home safety assessment ☐₃ Referred to eye doctor ☐₄ Education about cataract surgery ☐₅ Annual Eye Doctor ☐₆ Current with eye exams
Vision Vision Action B **[rfc_vsn_rx_b]**	☐₁ None ☐₂ Home safety assessment ☐₃ Referred to eye doctor ☐₄ Education about cataract surgery ☐₅ Annual Eye Doctor ☐₆ Current with eye exams
Vision Vision Action C **[rfc_vsn_rx_c]**	☐₁ None ☐₂ Home safety assessment ☐₃ Referred to eye doctor ☐₄ Education about cataract surgery ☐₅ Annual Eye Doctor ☐₆ Current with eye exams
Osteoporosis **[rfc_osteoporosis]**	☐₁ Normal: Not at risk ☐₂ Osteoporosis: On treatment less than 5 years

	$\square_3$ Osteoporosis: On treatment 5+ years. Consider treatment holiday.
	$\square_4$ Osteoporosis: Positive fragility fracture
	$\square_5$ Osteoporosis: Positive BMD
	$\square_6$ Osteoporosis: On treatment holiday fracture
	$\square_7$ Osteopenia: Low risk FRAX score
	$\square_8$ Osteopenia: High risk FRAX score
	$\square_9$ Low risk FRAX score
	$\square_{10}$ High risk FRAX score
	$\square_{20}$ Unable to determine (missing data)
Osteoporosis Patient Priority **[rfc_p_osteoporosis]**	$\square_1$ None $\square_2$ Not Priority $\square_3$ Priority
Osteoporosis Osteoporosis Action A **[rfc_ost_rx_a]**	$\square_1$ None $\square_2$ Start 1200mg Calcium Supplement (tablet or diet) or equivalent $\square_3$ Continue 1200mg Calcium Supplement (tablet or diet) or equivalent $\square_4$ Stop treatment temporarily (Drug holiday) $\square_5$ Referred to PCP for eval & treatment (e.g., Bisphosphonate) $\square_6$ Education
Osteoporosis Osteoporosis Action B **[rfc_ost_rx_b]**	$\square_1$ None $\square_2$ Start 1200mg Calcium Supplement (tablet or diet) or equivalent $\square_3$ Continue 1200mg Calcium Supplement (tablet or diet) or equivalent

	$\square_4$ Stop treatment temporarily (Drug holiday) $\square_5$ Referred to PCP for eval & treatment (e.g., Bisphosphonate) $\square_6$ Education
Osteoporosis Osteoporosis Action C **[rfc_ost_rx_c]**	$\square_1$ None $\square_2$ Start 1200mg Calcium Supplement (tablet or diet) or equivalent $\square_3$ Continue 1200mg Calcium Supplement (tablet or diet) or equivalent $\square_4$ Stop treatment temporarily (Drug holiday) $\square_5$ Referred to PCP for eval & treatment (e.g., Bisphosphonate) $\square_6$ Education
Vitamin D **[rfc_vitamin]**	$\square_1$ None $\square_2$ None, supplement more than recommended $\square_3$ Vitamin D Insufficient Dose $\square_4$ Vitamin D no Supplement $\square_{20}$ Unable to determine (missing data)
Vitamin d Patient Priority **[rfc_p_vitamin]**	$\square_1$ None $\square_2$ Not Priority $\square_3$ Priority
Vitamind d Vitamin d Action A **[rfc_vid_rx_a]**	$\square_1$ None $\square_2$ Reinforced OP recommendations $\square_3$ Start or continue Vitamin D 800-1,000 IU $\square_4$ Other

Vitamind d Vitamin d Action B **[rfc_vid_rx_b]**	☐[1] None ☐[2] Reinforced OP recommendations ☐[3] Start or continue Vitamin D 800-1,000 IU ☐[4] Other
Vitamind d Vitamin d Action C **[rfc_vid_rx_c]**	☐[1] None ☐[2] Reinforced OP recommendations ☐[3] Start or continue Vitamin D 800-1,000 IU ☐[4] Other
Home Safety **[rfc_homesafety]**	☐[1] None ☐[2] In Home Assessment ☐[3] In Home Assessment Homebound ☐[20] Unable to determine (missing data)
Home Safety Patient Priority **[rfc_p_homesafety]**	☐[1] None ☐[2] Not Priority ☐[3] Priority
Home Safety Home Safety Action A **[rfc_home_rx_a]**	☐[1] None ☐[2] Home Safety Assessment via Home Care Agency ☐[3] Home Safety Assessment via OT ☐[4] Patient Led Safety Changes ☐[5] Other
Home Safety Home Safety Action B	☐[1] None ☐[2] Home Safety Assessment via Home Care Agency

[rfc_home_rx_b]	$\square_3$ Home Safety Assessment via OT $\square_4$ Patient Led Safety Changes $\square_5$ Other
Home Safety Home Safety Action C **[rfc_home_rx_c]**	$\square_1$ None $\square_2$ Home Safety Assessment via Home Care Agency $\square_3$ Home Safety Assessment via OT $\square_4$ Patient Led Safety Changes $\square_5$ Other
Feet **[rfc_feet]**	$\square_1$ No Risk $\square_2$ Risk, Feet $\square_3$ Risk, Footwear $\square_4$ Risk, Feet and Footwear $\square_{20}$ Unable to determine (missing data)
Feet Patient Priority **[rfc_p_feet]**	$\square_1$ None $\square_2$ Not Priority $\square_3$ Priority
Feet Feet Action A **[rfc_feet_rx_a]**	$\square_1$ None $\square_2$ Referred to PCP $\square_3$ Suggest eval for PN $\square_4$ Patient Led Safety Changes $\square_5$ Eval & treatment by PT $\square_6$ Podiatrist $\square_7$ Identified safer footwear

	☐8 Orthotist
	☐9 Getting regular nail care by podiatrist or thru pedicures
Feet Feet Action B **[rfc_feet_rx_b]**	☐1 None ☐2 Referred to PCP ☐3 Suggest eval for PN ☐4 Patient Led Safety Changes ☐5 Eval & treatment by PT ☐6 Podiatrist ☐7 Identified safer footwear ☐8 Orthotist ☐9 Getting regular nail care by podiatrist or thru pedicures
Feet Feet Action C **[rfc_feet_rx_c]**	☐1 None ☐2 Referred to PCP ☐3 Suggest eval for PN ☐4 Patient Led Safety Changes ☐5 Eval & treatment by PT ☐6 Podiatrist ☐7 Identified safer footwear ☐8 Orthotist ☐9 Getting regular nail care by podiatrist or thru pedicures

CALCULATED VARIABLES

NOTES: visit variable _v# (# = 0,6,12,24,36,ah)**; all yes/no vars coded 1=Yes, 0=No**

meds_complete	Medication assessment completed?
meds_pos	Positive for Medication risk?
meds_priority	Medication risk prioritized?
meds_prec	# Medication patient actions recommended at baseline assessment
meds_pact1	Patient agreed to Medication action 1 (Visit with pharmacist)?
meds_pact2	Patient agreed to Medication action 2 (Allow Site Clinical Director to review medication)?
meds_pact3	Patient agreed to Medication action 3 (Visit with PCP for medication review)?
meds_nrec	# Medication nurse/FCM actions taken at baseline assessment
meds_nact1	Nurse/FCM took Medication action 1 (Provide handout about fall risk including mediations)?
meds_nact2	Nurse/FCM took Medication action 2 (Discuss adherence challenges)?
meds_nact3	Nurse/FCM took Medication action 3 (Discuss medications patient may want to modify)?
sgb_complete	Strength/Gait/Balance assessment completed?
sgb_pos	Positive for Strength/Gait/Balance risk?
sgb_priority	Strength/Gait/Balance risk prioritized?
sgb_prec	# Strength/Gait/Balance patient actions recommended at baseline assessment
sgb_pact1	Patient agreed to Strength/Gait/Balance action 1 (Community-based exercise)?
sgb_pact2	Patient agreed to Strength/Gait/Balance action 2 (Physical therapy)?
sgb_pact3	Patient agreed to Strength/Gait/Balance action 3 (Home exercise)?
sgb_pact4	Patient agreed to Strength/Gait/Balance action 4 (Other (e.g., yoga, personal trainer))?
posthyp_complete	Postural Hypotension assessment completed?
posthyp_pos	Positive for Postural Hypotension risk?
posthyp_priority	Postural Hypotension risk prioritized?
posthyp_prec	# Postural Hypotension patient actions recommended at baseline assessment
posthyp_pact1	Patient agreed to Postural Hypotension action 1 (Receive education about behavior changes to reduce PH)?
posthyp_pact2	Patient agreed to Postural Hypotension action 2 (Recheck blood pressure in two weeks)?
posthyp_pact3	Patient agreed to Postural Hypotension action 3 (Visit with PCP for postural hypotension management)?
posthyp_nrec	# Postural Hypotension nurse/FCM actions taken at baseline assessment
posthyp_nact1	Nurse/FCM took Postural Hypotension action 1 (Discuss diagnosis and management strategies)?
feet_complete	Feet assessment completed?
feet_pos	Positive for Feet risk?

feet_priority	Feet risk prioritized?
feet_prec	# Feet patient actions recommended at baseline assessment
feet_pact1	Patient agreed to Feet action 1 (Visit with PCP for foot evaluation and treatment)?
feet_pact2	Patient agreed to Feet action 2 (Physical therapy)?
feet_pact3	Patient agreed to Feet action 3 (Visit with podiatrist)?
feet_pact4	Patient agreed to Feet action 4 (Identify safer footwear)?
feet_pact5	Patient agreed to Feet action 5 (Visit with orthotist)?
feet_nrec	# Feet nurse/FCM actions taken at baseline assessment
feet_nact1	Nurse/FCM took Feet action 1 (Provide information about peripheral neuropathy referrals)?
feet_nact2	Nurse/FCM took Feet action 2 (Reinforce benefits of continuing regular nail care via podiatrist or pedicures)?
osteo_complete	Osteoporosis assessment completed?
osteo_pos	Positive for Osteoporosis risk?
osteo_priority	Osteoporosis risk prioritized?
osteo_prec	# Osteoporosis patient actions recommended at baseline assessment
osteo_pact1	Patient agreed to Osteoporosis action 1 (Start calcium supplement)?
osteo_pact2	Patient agreed to Osteoporosis action 2 (Stop treatment temporarily (drug holiday))?
osteo_pact3	Patient agreed to Osteoporosis action 3 (Visit with PCP for evaluation and treatment of OP)?
osteo_nrec	# Osteoporosis nurse/FCM actions taken at baseline assessment
osteo_nact1	Nurse/FCM took Osteoporosis action 1 (Reinforce benefits of continuing current OP management)?
osteo_nact2	Nurse/FCM took Osteoporosis action 2 (Provide education about OP and management)?
vitd_complete	Vitamin D assessment completed?
vitd_pos	Positive for Vitamin D risk?
vitd_priority	Vitamin D risk prioritized?
vitd_prec	# Vitamin D patient actions recommended at baseline assessment
vitd_pact1	Patient agreed to Vitamin D action 1 (Reinforce benefits of continuing dietary supplement)?
vitd_nrec	# Vitamin D nurse/FCM actions taken at baseline assessment
vitd_nact1	Nurse/FCM took Vitamin D action 1 (Start Vitamin D supplement)?
ovd_complete	Osteoporosis or vitamin D assessment completed?
ovd_pos	Positive for Osteoporosis or vitamin D risk?
ovd_priority	Osteoporosis or vitamin D risk prioritized?
ovd_prec	# Osteoporosis or vitamin D patient actions recommended at baseline assessment
ovd_pact1	Patient agreed to Osteoporosis or vitamin D action 1 (Start dietary supplement)?
ovd_pact2	Patient agreed to Osteoporosis or vitamin D action 2 (Stop treatment temporarily (drug holiday))?
ovd_pact3	Patient agreed to Osteoporosis or vitamin D action 3 (Visit with PCP for evaluation and treatment of OP)?

ovd_nrec	# Osteoporosis or vitamin D nurse/FCM actions taken at baseline assessment
ovd_nact1	Nurse/FCM took Osteoporosis or vitamin D action 1 (Reinforce benefits of continuing dietary supplement)?
ovd_nact2	Nurse/FCM took Osteoporosis or vitamin D action 2 (Provide education about OP and management)?
ovd_nact3	Nurse/FCM took Osteoporosis or vitamin D action 3 (Reinforce benefits of continuing current OP management)?
vision_complete	Vision assessment completed?
vision_pos	Positive for Vision risk?
vision_priority	Vision risk prioritized?
vision_prec	# Vision patient actions recommended at baseline assessment
vision_pact1	Patient agreed to Vision action 1 (Receive a home safety assessment)?
vision_pact2	Patient agreed to Vision action 2 (Visit eye doctor about a specific problem (e.g., cataracts))?
vision_pact3	Patient agreed to Vision action 3 (Establish annual visits with eye doctor)?
vision_nrec	# Vision nurse/FCM actions taken at baseline assessment
vision_nact1	Nurse/FCM took Vision action 1 (Provide education about cataract surgery)?
vision_nact2	Nurse/FCM took Vision action 2 (Reinforce benefits of continuing annual eye exams)?
home_complete	Home Safety assessment completed?
home_pos	Positive for Home Safety risk?
home_priority	Home Safety risk prioritized?
home_prec	# Home Safety patient actions recommended at baseline assessment
home_pact1	Patient agreed to Home Safety action 1 (Receive a home safety assessment)?
home_pact2	Patient agreed to Home Safety action 2 (Self-lead home safety changes)?