Minnesota Hospital Association

Falls Road Map

MHA's road maps provide hospitals and health systems with evidence-based recommendations and standards for the development of topic-specific prevention and quality improvement programs, and are intended to align process improvements with outcome data. Road maps reflect published literature and guidance from relevant professional organizations and regulatory agencies, as well as identified proven practices. MHA quality and patient safety committees provide expert guidance and oversight to the various road maps.

Each road map is tiered into fundamental and advanced strategies:

- **Fundamental strategies** should be prioritized for implementation, and generally have a strong evidence base in published literature in addition to being supported by multiple professional bodies and regulatory agencies.
- **Advanced strategies** should be considered in addition to fundamental strategies when there is evidence the fundamental strategies are being implemented and adhered to consistently and there is evidence that rates are not decreasing and/or the pathogenesis (morbidity/mortality among patients) has changed.

Operational definitions are included to assist facility teams with road map auditing and identifying whether current work meets the intention behind each road map element.

Resources linked within the road map include journal articles, expert recommendations, electronic order sets and other pertinent tools which organizations need to assist in implementation of best practices.

Road map sections	Road map questions (if not present at your hospital or answering no, please see next column for suggested resources)	If specific road map element is missing, consider the following resources:
Infrastructure	**FUNDAMENTAL** *(check each box if "yes")* ☐ The organization's falls and injury prevention committee includes representation from multiple Interdisciplinary departments (emergency department, mental/behavioral health, pharmacy, therapy, nursing, environmental services, social work/care management, etc.). ☐ The organization requires and has a designated place to document screening/assessment of all patients for fall risk factors as part of the admission process, at a minimum of once a day, and ongoing with change of condition for inpatients. ☐ The organization requires, and has a designated place to document screening/assessment of all patients for injury risk factors (i.e., ABCs – Age; Bones; Coagulation (include all antithrombotics); post-surgical/procedure at a minimum of 24 hours) as part of the admission process, at a minimum of once a day, and ongoing with change of condition for inpatients.	• The definition of team members' roles is the first step in determining how a falls prevention program will be carried out and organized. Consider the following resource when establishing a multidisciplinary committee. AHRQ Implementing a Fall Prevention Program • Despite best efforts, patients will sometimes fall. Careful post-fall assessments should be carried out in a systematic way. Consider the AHRQ (2013) best practice guidelines and clinical review tool for post-fall assessments. AHRQ Fall Prevention Program Design Tool 3N: Postfall Assessment, Clinical Review • Despite best efforts, patients will sometimes fall. A list of important communications can be found in the following AHRQ (2013) tool. Tool 3N: Postfall Assessment, Clinical Review

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Infrastructure, continued	☐ A post fall process includes appropriate initial and follow-up assessments completed (e.g., physical, neurological) in all falls with suspected injury to the head, or an unwitnessed fall (if a fall was unwitnessed, it is assumed the patient did hit his or her head). ☐ A post fall process includes a structured communication process that a fall has occurred, including notification of family and hand-off communication between health care team members. ☐ A post fall process includes that changes in a patient's status are reported promptly to the provider and provider is made aware if patient is on antithrombotics. If patient consents, change in status is communicated to family promptly.	• The Joint Commission provides an outline of contributing factors and solutions to hand off communication issues. Preventing Patient Falls: A Systematic Approach from the Joint Commission Center for Transforming Healthcare Project
	ADVANCED *(check each box if "yes")* ☐ Pharmacy consult upon admission and ongoing for high risk patients to identify high-risk medications. ☐ The organization has decision-support tools accessible (electronic or paper) that provide staff with an individualized care plan with the interventions that should be considered for each fall and injury risk factor. ☐ A post-fall process includes that the organization has assessed the patient room, bathroom and pathways to the bathroom, identifying opportunities for reducing hazards. ☐ If remodel/physical plant changes are made, environmental best practices (patient safety, safe design) are followed.	• Part of the multidisciplinary team model in preventing falls and falls injury is ensuring pharmacy services are available to consult for high-risk patients. Consider using the AHRQ (2013) pharmacy risk scale for all new patients. Tool 3I: Medication Fall Risk Score and Evaluation Tools • Evidence based clinical algorithms can be an effective decision-support tool for implementing interventions for fall and injury risk factors. Consider using the MHA Falls algorithm when developing tools. Algorithm for Falls Assessment Screening and Risk for Injury • It is possible to add features that aid in decision support to electronic documentation systems. AHRQ (2013) outlines some suggestions for including these tools in the EMR. AHRQ Implementing a Fall Prevention Program
Universal fall precautions	**FUNDAMENTAL** *(check each box if "yes")* ☐ A process is in place for staff to perform fall prevention checks as part of the rounding process for every patient, which includes ensuring alarms are activated and working properly. ☐ Institute "Within Arm's Reach" with toileting and ambulation for appropriate patients per assessment. Consider the increased risk for injury with a fall for patients on antithrombotics.	• Rounds are an opportunity to ensure that universal fall precautions are implemented and patients' needs are being met. Consider using the AHRQ (2013) Tool 3B to integrate fall prevention checks with the rest of a patient's care. Tool 3B: Scheduled Rounding Protocol • Safe Toileting Campaign • Tailoring Interventions for Patient Safety (TIPS), A Patient Centered falls Prevention Toolkit

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Universal fall precautions, continued	☐ A communication method is in place to indicate to staff that the patient is at risk for falls; consider a visual indicator of falls risk. ☐ Patient/family are educated on specific risk factors and the interventions in place for each of them. ☐ Non-skid slippers are recommended for all patients unless contraindicated based on clinical condition or assessment (e.g. shuffling gait, foot drop, etc.). ☐ Initiate timed toileting for patients who are impulsive, are experiencing urgency with bowels or bladder and are unable to use call light.	• With frequent handoffs between hospital personnel, whether it be nursing staff who change shift every 8 hours, or hospitalists who rotate every week and have separate night or weekend coverage, communication is critical. Consider using the AHRQ (2013) best practice implementation guide as a resource when developing a communication method. AHRQ Fall Prevention Program Design • Educators and staff nurses can distribute educational information to patients, but verbal counseling on fall risk should be performed by someone trained for this task. Consider handing out educational information to patients and their families when the patient is admitted to your unit. AHRQ Fall Prevention Program Design • The AHRQ (2013) Tool 3L provides examples of key educational points to include. Tool 3L: Patient and Family Education • Universal fall precautions are called "universal" because they apply to all patients regardless of fall risk. Universal fall precautions revolve around keeping the patient's environment safe and comfortable. A list of precautions adapted from the Institute of Clinical Systems Improvement outlined by the AHRQ (2013) website can provide a good starting point for establishing evidence based protocols and standards. AHRQ Fall Prevention Program Design • Additionally, the VA National Center for Patient Safety (NCPS) (2004) provides a comprehensive list of possible interventions for high-risk patients, including guidelines on environmental assessments and attire. NCPS Interventions • Falls Toolkit - VHA National Center for Patient Safety (va.gov)

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Universal fall precautions, continued	**ADVANCED** *(check each box if "yes")* ☐ Consider using low beds and mats for appropriate patients per assessment and all patients on antithrombotics.	• Once risk assessment has helped identify patient risk factors, care planning should match the identified risks. This includes planning for any risks found on the risk factor assessment tool, such as mobility challenges, medications, mental status, and continence needs. The use of protective and assistive devices has been shown to be effective methods of reducing fall injury rates. Consider their use during care planning. Utilizing Protective and Assistive Devices to Prevent Injuries Due to Falls

Fall reduction and injury prevention	**FUNDAMENTAL**
	(check each box if "yes")
	
	☐ Patients are assessed for injury risk upon admission (i.e. fall injury history, history of hip fracture, osteoporosis, anticoagulation, head trauma, etc.).
	☐ Fall reduction interventions and injury reduction interventions are identified and implemented into the individualized care plan.
	☐ Interventions are implemented to reduce trauma associated with falls.
	   - Interventions include:
	     ○ Rubber non-skid mats in showers
	     ○ Lids for cups, spill proof pitchers, water bottles
	     ○ Floor mats at bedside or padded flooring
	     ○ Strict restrictions in place for cords/wires, etc.- must be secured and off the floor
	☐ A process is in place for hand off communication between shifts and transitions of care regarding patient's fall risk and injury risk.
		• After universal fall precautions, a standardized assessment of risk factors for falls is the next step in fall prevention. The AHRQ (2013) provides a review of best practice guidelines that can be used when developing a standardized assessment of risk factors for falls.
		AHRQ Fall Prevention Program Design
		• A patient's individualized care plan is a document that indicates specific actions that should, or should not, be performed based on a patient's risk factors assessment. Consider using the AHRQ (2013) best practice guidelines when developing fall prevention care planning documents.
		AHRQ Fall Prevention Program Design
		• The VA National Center for Patient Safety (NCPS) (2004) provides a comprehensive list of possible interventions for high-risk patients, including guidelines on environmental assessments and attire.
		NCPS Interventions
		• Clear communication between team members is crucial in ensuring patient safety. Consider the AHRQ TeamSTEPPS pocket guide for communication templates and overall TeamSTEPPS resources.
		Pocket Guide: TeamSTEPPS
			Agency for Healthcare Research and Quality (ahrq.gov)

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Fall reduction and injury prevention, continued		• According to the Joint Commission (2016), handoff communication issues are one of the top contributing factors for falls and falls with injury. Considering using its guidelines when developing a handoff process. [Preventing Patient Falls: A Systematic Approach from the Joint Commission Center for Transforming Healthcare Project](#)
	ADVANCED *(check each box if "yes")* ☐ A comprehensive environmental assessment is conducted to identify environmental injury risks (sharp edges, sources of trauma, etc.).	• Environmental and equipment assessments are a key way to reduce the hazards in the patient environment. Consider using the VA National Center for Patient Safety (NCPS) (2004) guidelines to identify potential patient safety hazards. Additional resources to set up best practice recommendations include the General and Individual Environmental Checklist (pages 62-73) and the NCPS Equipment Safety Checklist. [NCPS Interventions](#) [General and Individual Environmental Checklist](#) [NCPS Equipment Safety Checklist](#)

Accidental fall	**FUNDAMENTAL**
	 (check each box if "yes")
	 (Slipping, tripping or other mishap generally related to environmental factors. Examples: slipping on spilled water on floor, tripping on wheelchair foot.)
	 ☐ All patients are assessed for proper attire.
	   ▪ For example:
	     ○ Ensure pant length is above the ankle
	     ○ Consider appropriate footwear
	 ☐ Units are assessed on a regular basis for slip/trip hazards, sturdy furniture at optimal height, sturdy grab bars and hand rails in appropriate locations.
		• The VA National Center for Patient Safety (NCPS) (2004) provides a comprehensive list of possible interventions for high-risk patients, including guidelines on environmental assessments and attire.
		 [NCPS Interventions](#)
		 • The VA National Center for Patient Safety (NCPS) (2004) provides a comprehensive list of possible environmental interventions for high-risk patients, including guidelines on environmental assessments.
		 [NCPS Interventions](#)

Road map sections	Road map questions (if not present at your hospital or answering no, please see next column for suggested resources)	If specific road map element is missing, consider the following resources:
Anticipated physiological fall prevention - mobilization	**FUNDAMENTAL** *(check each box if "yes")* *(Fall that occurs with a patient who is identified as being at risk of falling. Examples: falling from toilet of a patient with Parkinson's disease, a fall between the bed and chair of a patient with dementia and delirium, a patient admitted with syncope who falls in a bathroom unattended.)* ☐ The organization provides opportunities for intentional assisted mobilization (keep patients moving; assistances as needed), using appropriate equipment (gait belt, lift, sling, etc.) per individualized assessment/need.	• Evidence-based clinical algorithms can be an effective tool for providing intentional assisted mobilization. Consider using the AHRQ (2013) Tool 3K as a sample algorithm for patients who are deconditioning or are at risk for deconditioning. Tool 3K: Algorithm for Mobilizing Patients • Implementing intentional assisted mobilization is specific to a patient's ability. Consider utilizing the evidence-based best practice recommendations for mobilization interventions based on personal risk factors provided by The Victorian Quality Council (2004). Personal Risk Factors
	ADVANCED *(check each box if "yes")* ☐ A process in place to collaborate with occupational therapy or physical therapy to assess the patient's gait, balance and transfer ability and design a safe supervised mobility plan of care as needed.	• Mobility programs that combine services of nursing and rehabilitation personnel offer another example of interdisciplinary communication and collaboration. Physical or occupational therapists see patients with a need for skilled care or with weight-bearing limitations. Consider reviewing the AHRQ (2013) best practice recommendations on collaboration with physical and occupational therapists. AHRQ Fall Prevention Program Design • Early Mobility Toolkit
Anticipated physiological fall prevention - orthostatic hypotension	**FUNDAMENTAL** *(check each box if "yes")* ☐ Patients with orthostatic hypotension and their families receive education/reminders about his or her potential for dizziness and fall risk and compensatory strategies.	
	ADVANCED *(check each box if "yes")* ☐ A process is in place to assess orthostatic hypotension (drop in BP, compensatory elevation in pulse, and if patient is symptomatic) upon admission and upon change in medications with orthostatic hypotension as known side effect.	• Units with a high proportion of patients on medications that cause orthostatic hypotension, such as psychotropic medications, may want to use a protocol for checking and reporting orthostatic vital signs. Consider utilizing the AHRQ (2013) Tool 3F to identify and assess orthostatic hypotension. Tool 3F: Orthostatic Vital Sign Management

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Anticipated physiological fall prevention - orthostatic hypotension, continued	☐ A process is in place to communicate identified orthostatic hypotension to the patient's physician and during hand-off communications to the patient's clinical team (e.g. verbal rounds, EMR alert, patient problem list, etc.). ☐ Pharmacy services is actively involved in identifying patients' medications with orthostatic hypotension as known side effect. ☐ Pharmacy services makes recommendations to modify such medications to reduce orthostatic hypotension and fall risks.	• Clear communication between team members is crucial in ensuring patient safety. Consider the AHRQ TeamSTEPPS pocket guide for communication templates and overall TeamSTEPPS resources. [Pocket Guide: TeamSTEPPS	Agency for Healthcare Research and Quality (ahrq.gov)](#) • According to the Joint Commission (2016), handoff communication issues are one of the top contributing factors for falls and falls with injury. Considering using their guidelines when developing a handoff process. [Preventing Patient Falls: A Systematic Approach from the Joint Commission Center for Transforming Healthcare Project](#)

Anticipated physiological fall prevention - medication	**FUNDAMENTAL**
	 (check each box if "yes")
	 ☐ Patients on antithrombotics are identified on admission during the medication reconciliation process.
	 ☐ There is a mechanism in place to alert physicians/practitioners/nurses to antithrombotic usage to increase awareness across providers and staff.
	 ☐ The care plan is reviewed for patients on antithrombotics to include interventions specific to anticoagulant risk.
	   – It includes:
	     ○ Patient is evaluated for discontinuation of antithrombotics by the provider
	     ○ Performance of environmental checks to make sure any possible environmental hazards are mitigated (e.g., no sharp corners, reduce equipment/furniture by bed that patient could hit if they do fall, obstacles between bed and bathroom)
	 ☐ Patient and family education is provided outlining increased risk for injury for patients on antithrombotics along with fall and injury prevention strategies and steps to take if the patient falls.
	 ☐ A consult with physician occurs to determine if a head CT is needed after a fall for patients who are taking antithrombotics.
		• The VA National Center for Patient Safety (NCPS) (2004) provides a comprehensive list of possible environmental hazards high-risk patients as well as potential interventions to mitigate harm. Consider using the guide to establish standards and protocols for patients on antithrombotics.
		 [NCPS Interventions](#)
		 • Educators and staff nurses can distribute educational information to patients, but verbal counseling on antithrombotics and fall risk should be performed by someone trained for this task. Consider handing out the following educational information to patients and their families when the patient is admitted to your unit.
		 [Blood Thinners Risk Factors Brochure](#)

Road map sections	Road map questions (if not present at your hospital or answering no, please see next column for suggested resources)	If specific road map element is missing, consider the following resources:
Anticipated physiological fall prevention - impaired cognition/behavior	**FUNDAMENTAL** *(check each box if "yes")* ☐ A process is in place to assess for delirium and implement interventions. ☐ A process is in place to encourage use of sensory aids as appropriate, e.g., hearing aids, glasses.	• Patients found to have impaired mental activity as a risk factor for falls require further evaluation. Consider using the AHRQ (2013) Delirium Evaluation Bundle is designed to help determine if the patient has delirium. Tool 3J: Delirium Evaluation Bundle • Sensory aids can help orient a patient to their environment, a vital component of delirium prevention. Determining which, if any, sensory aids are used by the patient, ensuring sensory aids are available and in reach of patient, and resolving reversible causes of the impairment, such as impacted ear wax, are all clinical guidelines provided by the National Institute for Health and Care (2010). Consider using these guidelines to implement evidence-based best practices in delirium prevention. Delirium: Prevention, Diagnosis, and Management
	ADVANCED *(check each box if "yes")* ☐ Program evaluation includes analysis of disruptive, agitating environmental noise with a plan to create a calming environment.	• According to the American Nurse Association (2016), noise, interrupted sleep, and abnormal day/night illumination can all contribute to delirium. Consider reviewing their best practice recommendations on environmental management when undertaking program evaluation. Delirium Prevention Strategies
Unanticipated fall	**FUNDAMENTAL** *(check each box if "yes")* *(Fall attributed to physiological causes that cannot be predicted. Examples: fall when patient has a seizure while transferring to chair or patient in bathroom has stroke.)* ☐ If an unanticipated fall occurs, interventions specific to the root cause of the fall are put in place.	• Root cause analysis is used in organizations to evaluate and understand what problems contributed to error or undesired outcomes. An understanding of the events surrounding a fall can inform the care plan for the patient who fell, as well as guide ongoing quality improvement efforts at the unit level. Consider reviewing the following AHRQ (2013) root cause and clinical review resources when developing post-fall interventions. 3O: Postfall Assessment for Root Cause Analysis 3N: Postfall Assessment, Clinical Review