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.

<table>
<thead>
<tr>
<th>Road map sections</th>
<th>Road map questions (if not present at your hospital or answering no, please see next column for suggested resources)</th>
<th>If specific road map element is missing, consider the following resources:</th>
</tr>
</thead>
</table>
| Infrastructure    | **FUNDAMENTAL**  
(check each box if “yes”)  
☐ The organization’s falls and injury prevention committee includes representation from mental health.  
☐ Patients and families receive education about fall and injury risk factors and strategies to reduce preventable falls and injuries from occurring.  
☐ Organizational leadership evaluates infrastructure and resources to protect patients from injurious falls in mental/behavioral health units.  
☐ Unit-based falls champions are identified for mental/behavioral health units.  
☐ A process is in place to conduct post-fall huddle after any fall occurs.  
☐ Post-fall huddle addresses root cause and new intervention/plan of care to prevent repeat falls based on the root cause. | • 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](https://www.ahrq.gov/)  
• The AHRQ (2013) Tool 3L provides examples of key educational points to include. [Tool 3L: Patient and Family Education](https://www.ahrq.gov/)  
• According to the AHRQ (2013) a safety huddle is a short, informal meeting to cover issues related to patient safety. A post-fall clinical review is a structured way to collect information after a fall. The clinical review aims to determine whether there are injuries or other complications. Consider using the post-fall safety huddle to communicate the results of the clinical review and |
<table>
<thead>
<tr>
<th>Road map sections</th>
<th>Road map questions (if not present at your hospital or answering no, please see next column for suggested resources)</th>
<th>If specific road map element is missing, consider the following resources:</th>
</tr>
</thead>
</table>
| **Infrastructure, continued** | - Determine patient specific interventions.  
- **Tool 3N: Postfall Assessment, Clinical Review**  
- After a fall occurs and the patient’s root cause analysis is complete, a safety huddle may be appropriate so that the whole unit can learn from the event. Consider reviewing the AHRQ (2013) best practice guidelines for post-fall activities when establishing protocols and standards. **AHRQ Fall Prevention Program Design** | |
| ADVANCED  
(check each box if “yes”) | - Fall and fall injury risks and prevention strategies are emphasized by multidisciplinary departments, during new employee orientation and on an ongoing basis for behavioral health employees.  
- Consider a variety of methods: didactic, case studies, simulation.  
- Behavioral health fall data is shared with staff on a regular basis for learning opportunities and to increase awareness.  
- Include: rate, type, location, contributing factors.  
- Organizational leadership in mental/behavioral health remains appraised of innovations in non-intrusive/non-disruptive real-time surveillance technology to improve patient safety and reduce falls and injury associated with falls. | - Communication is essential to keep staff involved and up to date. Therefore, leadership will need to consider how to engage and communicate with the staff at large as new practices become integrated into ongoing operations. Consider the tools outlined in AHRQ’s (2013) sustainability guidelines when establishing protocols and standards. **AHRQ Sustainability** |
| **Fundamental**  
(check each box if “yes”) | - A process is in place for staff to perform fall prevention checks as part of their rounding process for every patient, which includes ensuring alarms are activated and working properly.  
- Consider using low beds and mats for appropriate patients per assessment and all patients on antithrombotics.  
- Institute “within arm’s reach” with toileting and ambulation for appropriate patients per assessment and all patients on antithrombotics.  
- A communication method is in place to indicate to staff that patient is at risk for falls; consider a visual indicator of falls risk. | - 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**  
- 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. |
<table>
<thead>
<tr>
<th>Road map sections</th>
<th>Road map questions (if not present at your hospital or answering no, please see next column for suggested resources)</th>
<th>If specific road map element is missing, consider the following resources:</th>
</tr>
</thead>
</table>
| Universal fall precautions, continued | ☐ Patient/family are educated on specific risk factors and the interventions in place for each of them.  
☐ Non-skid slippers or appropriate footwear 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. | **Utilizing Protective and Assistive Devices to Prevent Injuries Due to Falls**  
- 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**  
- Patients may not seek help for toileting needs for a variety of reasons. Consider reviewing the recommendations for hourly rounding and scheduled toileting for high-risk patients provided by the Joint Commission. |
<table>
<thead>
<tr>
<th>Road map sections</th>
<th>Road map questions (if not present at your hospital or answering no, please see next column for suggested resources)</th>
<th>If specific road map element is missing, consider the following resources:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FUNDAMENTAL</strong></td>
<td>(check each box if “yes”)</td>
<td>Preventing Patient Falls: A Systematic Approach from the Joint Commission Center for Transforming Healthcare Project</td>
</tr>
<tr>
<td></td>
<td>Patients are assessed for injury risk upon admission (i.e. fall injury history, history of hip fracture, osteoporosis, anticoagulation, head trauma, etc.).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fall reduction interventions and injury reduction interventions are identified and implemented into the Individualized Care Plan.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- These include:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ Capri length pajama pants with Velcro waist</td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ Clogs, Crocs, flip flops, and other backless shoes discouraged</td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ Bedside mats on safe bed exit side while patient resting in bed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interventions are implemented to reduce trauma associated with falls.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- These include:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ Rubber non-skid mats in showers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ Purchase lids for cups, spill proof pitchers, water bottles</td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ Floor mats at bedside or padded flooring</td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ Strict restrictions in place for cords/wires, etc.- must be secured and up off floor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A process is in place for hand off communication between shifts and transitions of care regarding patient’s fall risk and injury risk between shifts and units.</td>
<td></td>
</tr>
</tbody>
</table>

- 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.

AHRQ TeamSTEPPS Pocket Guide

- According to the Joint Commission (2016), hand-off communication issues are one of the top contributing factors for falls and falls with injury. Considering using their guidelines when developing a hand-off process.

Preventing Patient Falls: A Systematic Approach from the Joint Commission Center for Transforming Healthcare Project
<table>
<thead>
<tr>
<th>Road map sections</th>
<th>Road map questions (if not present at your hospital or answering no, please see next column for suggested resources)</th>
<th>If specific road map element is missing, consider the following resources:</th>
</tr>
</thead>
</table>
| Fall reduction and injury prevention, continued | **ADVANCED**  
(check each box if “yes”)  
☐ Comprehensive Environmental Assessment conducted to identify environmental injury risks in mental/behavioral health units (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”)  
☐ All patients are assessed for proper attire.  
- For example:  
  ○ Ensure pant leg 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** |
| Anticipated physiological fall prevention mobilization | **FUNDAMENTAL**  
(check each box if “yes”)  
☐ 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** |
### Anticipated physiological fall prevention mobilization, continued

#### 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 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](https://www.ahrq.gov/clinic/qrisk2tool/)

#### ADVANCED
**(check each box if “yes”)**

- A process is in place to assess orthostatic hypotension (OH) (drop in BP, compensatory elevation in pulse, and if patient is symptomatic) upon mental/behavioral health patient admission and upon change in medications with OH as known side effect.

- Patients with postural hypotension and their families receive education/reminders about their potential for dizziness and fall risk and compensatory strategies.

- 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 OH as known side effect.

- Pharmacy services makes recommendations to modify such medications to reduce OH and fall risks.

- 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](https://www.ahrq.gov/clinic/qrisk2tool/)

- Clear communication between team members is crucial in ensuring patient safety. Consider the AHRQ TeamSTEPPS pocket guide for communication templates and overall TeamSTEPPS resources.
  - [AHRQ TeamSTEPPS Pocket Guide](https://www.ahrq.gov/clinic/teamstepps/)

- 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](https://www.jointcommission.org/patient_safety/patientsafetycampaign/PatientFalls/)
<table>
<thead>
<tr>
<th>Road map sections</th>
<th>Road map questions (if not present at your hospital or answering no, please see next column for suggested resources)</th>
<th>If specific road map element is missing, consider the following resources:</th>
</tr>
</thead>
<tbody>
<tr>
<td>FUNDAMENTAL</td>
<td>Anticipated physiological fall prevention – medication</td>
<td>• 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. <strong>Tool 3J: Delirium Evaluation Bundle</strong></td>
</tr>
<tr>
<td></td>
<td>(check each box if “yes”)</td>
<td><strong>ADVANCED</strong></td>
</tr>
<tr>
<td></td>
<td>□ A process is in place (consider Pharmacist involvement) to examine the necessity of all medications and over-the-counter and herbal products mental/behavioral health patients are taking, especially potentially inappropriate medications, and consider gradual dosage reduction if symptoms are absent.</td>
<td>• 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. <strong>Delirium: Prevention, Diagnosis, and Management</strong></td>
</tr>
</tbody>
</table>
|                  | □ If potentially at-risk medications need to be prescribed, a process is in place for prescribing providers to consider modify medication dose, timing, short or long acting for mental/behavioral health patients.  
  - For example:  
    ○ Antipsychotic agents  
    ○ Antidepressants  
    ○ Benzodiazepines  
    ○ Selective serotonin reuptake inhibitors | **ADVANCED**                                                                 |
|                  | □ A process is in place to assess for delirium/dementia/TBI/impaired cognition and implement interventions.                                           | • 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                                                                 |
|                  | (check each box if “yes”)                                                                                                                           | **ADVANCED**                                                                 |
|                  | □ A process is in place to encourage use of sensory aids as appropriate, e.g., hearing aids, glasses.                                                 | **ADVANCED**                                                                 |
|                  | □ Program evaluation includes analysis of disruptive, agitating environmental noise with plans to create a calming environment.                     | **ADVANCED**                                                                 |

**FUNDAMENTAL**
(check each box if “yes”)

**ADVANCED**
(check each box if “yes”)

© 2017 Minnesota Hospital Association | 7
<table>
<thead>
<tr>
<th>Road map sections</th>
<th>Road map questions (if not present at your hospital or answering no, please see next column for suggested resources)</th>
<th>If specific road map element is missing, consider the following resources:</th>
</tr>
</thead>
</table>
| Unanticipated physiological fall | 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. | • 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.  
3Q: Postfall Assessment for Root Cause Analysis  
3N: Postfall Assessment, Clinical Review |

FUNDAMENTAL (check each box if “yes”)

☐ If unanticipated fall occurs, interventions specific to the root cause of the fall are put in place.