MHA's roadmaps 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.

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<td>(check each box if “yes”)</td>
<td>• Guidelines Evidence NPUAP-EPUAP-PPPIA</td>
</tr>
<tr>
<td></td>
<td>□ The facility has an interdisciplinary team involved in implementing and maintaining the pressure injury prevention program with representation from across the facility.</td>
<td>• Unit-Based Skin Champion Charter</td>
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<td>□ Department specific policies are in place to address their unique role in preventing pressure injuries.</td>
<td>• AHRQ TeamSTEPPS Pocket Guide</td>
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<td></td>
<td>□ Skin safety representation/champions are promoted throughout the facility.</td>
<td>• HRET Hospital Acquired Pressure Injury Change Package</td>
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<td></td>
<td>□ There is a process in place to communicate patient’s pressure injury risk and skin integrity status during structured hand-offs across departments.</td>
<td>• AAWM Certification</td>
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<td></td>
<td>□ The program has at least one team member with a background/education/certification in wound care.</td>
<td>• WOCNCB certification</td>
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</table>
| Skin safety coordination and team approach, continued | **ADVANCED**  
(check each box if “yes”)  
☐ The pressure injury prevention program is reviewed by the team and updated at least annually or with a rise in hospital-acquired pressure injuries.  
☐ Pressure injury case studies are routinely shared through patient stories/lived experiences, as well as through data. | • Guidelines Evidence p. 11 NPUAP-EPUAP-PPPIA  
• MHA Measure Specifications-Incidence Density  
• MHA Hospital Pressure Injury Reportability Algorithm  
• MHA Good Catch Award Nomination  
• NPSF Improving Root Cause Analyses and Actions to Prevent Harm  
• NPUAP Root Cause Analysis Template |
| Accurate and concurrent reporting | **FUNDAMENTAL**  
(check each box if “yes”)  
☐ The facility has a concurrent reporting process (such as incidence reporting) in place to collect all stages of pressure injury.  
☐ Pressure injury data and learnings (including root cause analysis and good catches) are shared at least quarterly  
- Within units  
- Across units  
- Across departments  
- With leadership | • Guidelines Evidence P. 66 NPUAP-EPUAP-PPPIA  
• Organizations, Pressure Ulcer/Injury Guideline Publications and Websites  
• NPUAP Medical device related PI prevention-general  
• NPUAP Medical device related PI prevention-critical care  
• NPUAP Medical device related PI prevention-pediatrics |
| Facility expectations and staff education | **ADVANCED**  
(check each box if “yes”)  
☐ There is a process in place to audit the reliability of the reporting process through point prevalence incidence studies or NDNQI surveys.  
☐ A process is in place to track and analyze data regarding incontinence-associated dermatitis (e.g. during pressure injury point prevalence and incidence studies). | • IAD Best Practice Guidelines Document  
• NDNQI Pressure Injury Education and Survey Training |
## Facility expectations and staff education, continued

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<td>□ The facility expects that evidence-based practice recommendations (e.g. NPAUP and WOCN Society recommendations) are used as resources for:</td>
<td>• NPUAP Medical device related PI prevention-long term care</td>
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<tr>
<td></td>
<td>□ Updating policies and procedures</td>
<td>• Conducting a head-to-toe skin inspection</td>
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<tr>
<td></td>
<td>□ Updating education materials and methods</td>
<td>• IAD Best Practice Guidelines Document</td>
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<td></td>
<td>□ Developing action plans for peri-operative and device related pressure injuries</td>
<td>• MHA MDPRI Prevention Bundle Poster</td>
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<td>□ Staff pressure injury prevention competence is re-evaluated on an annual basis.</td>
<td>• MHA INJURY Bundle</td>
</tr>
<tr>
<td><strong>ADVANCED</strong></td>
<td><strong>(check each box if “yes”)</strong></td>
<td>• MHA INJURY Patient Education Tool</td>
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<td></td>
<td>□ The facility has a process in place for real time dialogue, barrier identification and education related to pressure injury prevention (e.g. daily huddles, weekly skin rounds, interdisciplinary rounding, wound RN consult).</td>
<td>• MHA INJURY Patient Education Tool-Spanish</td>
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<td></td>
<td></td>
<td>• MHA INJURY Bundle Auditing Tool</td>
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<tr>
<td></td>
<td></td>
<td>• MHA Respiratory Device Recommendations and Guidance</td>
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<td>• MHA Perioperative Recommendations and Guidance</td>
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<td>• MHA Cervical Collar Recommendations and Guidance</td>
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<td>• Too Unstable to Turn Algorithm</td>
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<td>• MHA Education PowerPoint CE Offerings</td>
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<td>• Kathleen Vollman Education Videos</td>
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<td></td>
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<td>• MHA head to toe skin inspection video</td>
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<td></td>
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<td>• NDNQI Pressure Injury Education and Survey Training</td>
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<td></td>
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<td>• AHRQ Observing Patient Care Rounds Tool</td>
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## Education of patients and families

<p>|                               | <strong>FUNDAMENTAL</strong> <em>(check each box if “yes”)</em> | • Guidelines Evidence p. 65 NPUAP-EPUAP-PPPIA                           |
|                               | □ Patient/family education tools are disseminated for skin safety to patients at risk for pressure injuries. | • MHA MDPRI Prevention Bundle Poster                                       |
|                               | □ Patient/family education tools incorporate the prevention of device-related pressure injuries (e.g. cervical collars, respiratory devices). | • MHA INJURY Bundle                                                         |
|                               | □ Patient/family education tools incorporate the importance of proper nutrition in prevention of pressure injuries. | • MHA INJURY Patient Education Tool                                           |
| <strong>ADVANCED</strong>                  | <em>(check each box if “yes”)</em>                   | • MHA INJURY Patient Education Tool-Somali                                |
|                               | □ The facility requires and has a designated place to document skin safety education and patient/family response. | • MHA INJURY Patient Education Tool-Spanish                                  |
|                               |                                               | • MHA INJURY Bundle Auditing Tool                                           |
|                               |                                               | • AHRQ: What is patient and family engagement?                              |
|                               |                                               | • AHRQ Patient and family engagement checklist                              |</p>
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| **FUNDAMENTAL**   | (check each box if “yes”)                                                                                                                                                                         | • Guidelines Evidence page 14 NPUAP-EPUAP-PPPIA  
• MHA INJURY Bundle  
• MHA INJURY Patient Education Tool  
• MHA INJURY Patient Education Tool-Somali  
• MHA INJURY Patient Education Tool-Spanish  
• MHA INJURY Bundle Auditing Tool  
• MHA MDPRI Prevention Bundle Poster  
• MHA Head To Toe Skin Inspection Video  
• MHA Braden Risk Educational PowerPoint and Post Test  
• NDNQI Pressure Injury Education and Survey Training |
|                   | □ The facility requires, and has a designated place to document, the Braden/Braden Q (pediatric) pressure injury risk assessment upon admission and at least daily or per hospital standard.  
□ Skin inspections are performed and documented on admission, at least daily per hospital standard, and when there is a change in patient condition. This includes a complete skin inspection between skin folds, buttocks, and under and around devices.  
- The facility requires and has a designated place to document a complete skin inspection on admission (ideally within 8 hours) and at least daily as well as when there is a change in patient condition.  
□ Risk assessment findings are linked to specific interventions.  
□ Pressure injury prevention and treatment products are readily available. At a minimum, this includes:  
- Skin moisture barrier products  
- Appropriate incontinence containment products/bedding  
- Pressure redistribution mattresses  
- Heel offloading devices  
- Pillows or wedges for repositioning  
- Repositioning slings/sheets to use with ceiling lifts  
□ Treatment products and incontinence care products are organized in a common location that is readily accessible to staff. | |
| **ADVANCED**      | (check each box if “yes”)                                                                                                                                                                         | |
|                   | □ Staff and resources are accessible for troubleshooting devices and complex patients at high risk for pressure injury development.  
□ Staff has been educated on the availability of troubleshooting resources. | |
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| **FUNDAMENTAL**   | (check each box if “yes”) Reposition all individuals at risk of or with existing pressure injuries, unless medically contraindicated, at least every 2 hours. | • Guideline Evidence p. 20 NPUAP-EPUAP-PPPIA  
• MHA INJURY Bundle  
• MHA INJURY Patient Education Tool  
• MHA INJURY Patient Education Tool-Somali  
• MHA INJURY Patient Education Tool-Spanish  
• MHA INJURY Bundle Auditing Tool  
• Refusal to Turn Algorithm  
• Refusal to Turn in EPIC  
• Mobility Assessment Algorithm  
• Too Unstable to Turn Algorithm  
• MHA Turning Clock  
• Kathleen Vollman Education Videos  
• WOCN Society Support Surface Algorithm  
• Positioning Audit Tool  
• Support Surface Inspection Checklist |
<p>|                   | When regular repositioning is medically contraindicated, hourly micro-shifts/off loads or slow incremental tilts of 10-15 degrees is required. | |
|                   | When regular repositioning is medically contraindicated retrials are conducted, and documented every 8 hours to reevaluate for optimal 2-hour repositioning. | |
|                   | When patients decline, or refuse repositioning, documentation of informed refusal and reason for refusal is required. | |
|                   | Evaluation and use of appropriate support surfaces (mattresses, chair cushions, OR, transport, and procedure surfaces). At a minimum, this includes: | |
|                   | - The requirement that pressure injury redistribution surfaces be used for patients with a Braden score of &lt;18. | |
|                   | - A process in place to have an advanced support surfaces readily available so that patients with anticipated medical contraindications to repositioning can be initially placed on an appropriate surface. | |
|                   | - Support surfaces are evaluated across the entire organization for appropriate pressure redistribution properties (e.g. OR beds, chair cushions, transport carts, radiology tables, emergency department gurneys). | |
|                   | The facility requires off-loading/floating of heels anytime patients have deficits in sensation, perfusion, mobility and/or inability to communicate pain (e.g. sedation, neuropathy, PVD). | |
| <strong>ADVANCED</strong>      | (check each box if “yes”) Adherence with repositioning is monitored (e.g. chart/observational audits). | |
|                   | The facility has support surface/off-loading decision-making tools that are accessible to the staff | |
|                   | - The support surface algorithm identifies advanced support surfaces with features and components such as low air loss, viscous fluid, air fluids and/or alternating pressure for patients that are not adequately repositioned (including head of bed &gt; than 30 degrees and patient refusal). | |</p>
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| **Best practice minimizes pressure, friction and shear, continued** | **ADVANCED, continued**  
(check each box if “yes”)  
☐ A plan/process is in place for replacement or supplementation of surfaces that do not provide adequate pressure redistribution for patients at risk.  
- This includes the need for a system to track the start date of support surface use and expiration of mattress (e.g. terminal cleaning policy).  
☐ There is a standard process in place to identify patient mobility status and a system in place to alert all staff to this status.  
- This includes a plan to utilize appropriate staff and equipment for transfers and/or repositioning as indicated by patient mobility status. | • IAD Best Practice Guidelines Document  
• Pads, briefs, pull-ups (BWAP) Consensus Statements  
• External Collection Devices as an Alternative to the Indwelling Urinary Catheters |
| **Fundamental**  
(check each box if “yes”) | ☐ The facility requires the use of cleansers specifically designed for the perineal area for patients with incontinence and ensures that this product is readily available.  
☐ The facility requires the use of moisture barriers for patients with incontinence.  
☐ The facility has a process in place for scheduled toileting for incontinent patients (e.g. hourly rounding, toileting prior to end of shift). | |
| **Advanced**  
(check each box if “yes”) | ☐ The formulary for incontinence products is user-friendly and standardized  
- At a minimum, the formulary includes:  
  ○ High specification body worn absorptive products  
  ○ High specification absorptive bed pads  
  ○ Perineal cleansers and barriers  
  ○ Urinary and fecal containment devices  
☐ Staff are educated on minimizing layers between the patient and the bed. | |
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| Best practice nutrition | **FUNDAMENTAL**  
*(check each box if “yes”)*  
☐ Nursing nutritional risk screening is completed within 24 hours of patient admission (ideally within 8-12 hours of admission).  
☐ If the patient is at nutritional risk and/or risk for pressure injuries as defined by the Braden sub-score of <2, a process is in place to request a nutrition consult within 24 hours of admission.  
  - The facility’s process for nutritional consults indicate a time frame for completing the consult after a request is received.  
☐ A process is in place for the interdisciplinary team to additional nutritional nourishment as appropriate to assist with healing. | • Guidelines Evidence P. 20 NPUAP-EPUAP-PPPIA  
• HRET Malnutrition Change Package |
| Best practice nutrition | **ADVANCED**  
*(check each box if “yes”)*  
☐ Facility does not recommend pre-albumin and albumin levels as independent markers of nutritional status and should not be used in isolation as a trigger for a nutritional consult. | |
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| **Best practice operating room, continued** | **ADVANCED**  
(check each box if “yes”)  
☐ Responsibility for positioning and repositioning the patient is assigned and well-defined.  
☐ Patients with expected postoperative hemodynamic instability and medical contraindications to turning are placed on an advanced support surface with features and components such as low air loss, viscous fluid, air fluids, or alternating pressure for postoperative care. | General  
- Guidelines Evidence p. 30 and 61 NPUAP-EPUAP-PPPIA MDRPI  
- NPUAP mucosal pressure ulcer position statement  
- Joint Commission MDRPI publication  
- MHA MDPRI Prevention Bundle Poster  
- Interdisciplinary Work Standards MDRPI  
- Conducting a head-to-toe skin inspection  
- Medical Device Securement/Stabilization Product Examples  
- MHA MDRPI Education PowerPoint CE Offering  
- MDRPI and Urinary Catheter Stabilization Free CE Article  |
| **FUNDAMENTAL**  
(check each box if “yes”)  
☐ Remove devices (or position nonremovable devices) to inspect the skin under and around the device. | Respiratory devices  
Soft flexible tubing (e.g. silicone tubing) is the standard oxygen tubing used hospital-wide. If a soft tubing option does not exist, e.g. high-flow tubing, ear protection is used to protect the skin around the ears.  
☐ The organization requires, and assigns responsibility for, the inspection of skin beneath and around respiratory devices.  
☐ Respiratory therapy is an active member of the pressure injury prevention team.  
☐ A respiratory therapy champion(s) is designated for pressure injury prevention related to respiratory devices.  
- This includes partnering with the skin champion(s) to provide coaching, education and protocols for respiratory therapist and nursing staff on skin inspections and pressure ulcer prevention practices related to respiratory devices, on the proper fitting of CPAP/BiPAP, and for preventing pressure ulcers on the bridge of the nose and nares due to pressure from oxygen masks and nasal cannulas. | Respiratory Devices  
- MHA Respiratory Device Recommendations and Guidance  
- NPUAP Medical device related PI prevention-general  
- NPUAP Medical device related PI prevention-critical care  
- NPUAP Medical device related PI prevention-pediatrics  
- NPUAP Medical device related PI prevention-long term care  
- Respiratory device dressing selection guide  
- Prophylactic foam dressing product  
- Flow chart for BiPAP/CPAP prophylactic products |
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| **FUNDAMENTAL, Continued**  
(check each box if “yes”) | | **ETT**  
- AHA recommendations for securing ETT  
- ETT securement device and procedure  
- Tracheostomy protocol pictorial for offloading faceplate  

**Cervical collars**  
- If the patient condition permits, the skin is inspected and cleaned during change from transport collar to longer-term collar.  
- Orthotist, or another trained provider, is consulted for appropriate collar fit.  
- Patients are removed from backboard on arrival in emergency department or as soon as possible.  
- Standardized processes are in place to achieve definitive care, e.g. collar removal, change to longer-term collar, within 24 hours or less.  
- Staff is trained in proper technique for cervical collar placement.  
- If collar has removable inner pads, pads are changed and washed every 24 hours (and as needed).  
- Staff is trained in proper technique for skin inspection and care of skin related to cervical collars. | **Nasal Cannula**  
- Nasal Cannula Soft Tubing Examples  
- Respiratory Therapy Education Slide Set  

**Cervical Collars**  
- MHA Cervical Collar Recommendation and Guidance  
- Cervical Collar Pictorial Procedure  
- Cervical Policy  

**Enteric Tubes**  
- Feeding Tube Attachment Device (FTAD) Procedure  
- NG Stabilization Device Procedure (Statlock)  
- NG Securement (Bridle) Manufacturer’s Instructions  
- NG Securement (Bridle) Manufacturer’s Instructions  
- External Collection Devices as an Alternative to the Indwelling Urinary Catheters  

**Urinary Catheters**  
- Criteria for Urinary Catheter Guidelines  
- BARD StatLock Foley stabilization device  
- CDC.ANA Urinary Catheter Criteria  
- MDRPI and Urinary Catheter Stabilization Free CE Article  
- External Collection Devices as an Alternative to the Indwelling Urinary Catheters  

**Fecal Management Systems**  
- Flexiseal Manufacturer’s Instructions  
- Dignishield Manufacturer’s Instructions  

**Anti-embolism stockings (AES)**  
- Anti-embolism stocking policy  

| **ADVANCED**  
(check each box if “yes”) | | **Respiratory devices**  
- Strap tension and skin integrity beneath and around life sustaining Bi-PAP and NPPV masks are checked at least every four hours, with oral intake and with oral cares.  
- During routine tracheostomy site care (at least every 8-12 hours) skin integrity and tension is checked under straps, around and in back of the neck, around the stoma and under the tracheostomy tube flange/faceplate.  
- The tension and skin integrity under and around ETTs and straps is checked every two hours, when repositioning patient, with close attention to the neck, lips and mouth. | **Cervical collars**  
- Education is provided to patients/family prior to discharge and includes information on application, maintenance, removal, cleaning, proper cervical alignment, skin care and inspection. |