Hillrom™

ENHANCING PRESSURE INJURY PREVENTION STRATEGIES BASED ON NEW GUIDELINES

From learning more to doing better.

PREVENTION RATES OVER TIME

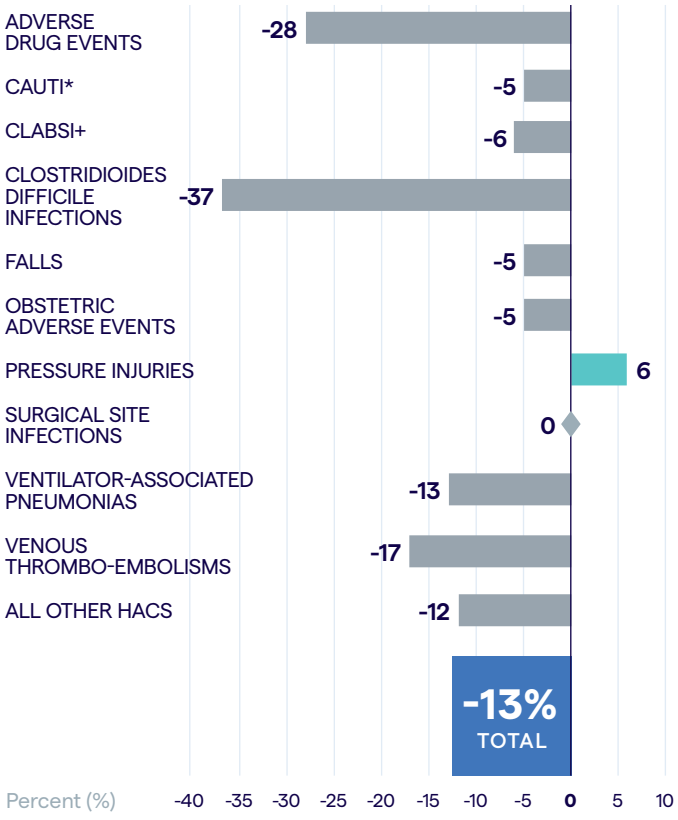
The most recent findings from the Centers for Medicaid and Medicare Services (CMS) report states pressure injuries develop in nearly 2.5 million patients annually, representing 8.3% of hospital admissions. The resulting financial burden for care is estimated to be between $3.3–$11 billion annually.[1]

While most occurrences of hospital acquired conditions sharply decreased between 2010–2017, the Agency for Healthcare Research and Quality (AHRQ) reported that pressure injuries increased by 6%.[2] There was a 30% increase in severe pressure injuries in academic medical centers between 2015–2017.[3] Not only are we seeing an increase in the rate of pressure injuries, but one study noted 32.4% of ICU patients with stage 1 pressure injuries worsened during their stay at the hospital, and 2.7% required surgical intervention to help heal the injury.[4]

Estimated annual cost of care from pressure injuries[1]

$3.3–$11 billion annually

HOSPITAL ACQUIRED CONDITIONS DECLINE[2]



*CAUTI – Catheter-Associated Urinary Tract Infections
+CLABSI – Central Line-Associated Bloodstream Infections

PRESSURE INJURY DEVELOPMENT: CAUSES AND RISK FACTORS

Pressure injuries develop when there is localized damage to the skin or underlying tissues due to pressure—and sometimes combined with shear—that impacts the skin's ability to provide oxygen and nutrients and remove waste byproducts.

A pressure injury typically develops over a bony prominence, but can also develop in the mucous membranes as a result of prolonged placement of medical devices, such as endotracheal tubes and catheters. Several risk factors have been identified as affecting development of a pressure injury. These risk factors include mobility, moisture, perfusion, nutrition, age, skin condition and sensory perception.

CLINICAL GUIDANCE TO PREVENTING PRESSURE INJURIES

The National Pressure Injury Advisory Panel (NPIAP) is an independent not-for-profit organization recognized as a subject matter expert and key opinion leader in the field of pressure injury prevention and treatment. The recently published 2019 NPIAP "Prevention and Treatment of Pressure Ulcers/Injuries: Clinical Practice Guideline" provides a thorough review of the strength of current evidence and outlines expert recommendations based on clinical evidence to support pressure injury prevention and treatments.

The guidelines include a broad review of risk factors, but for the purpose of this paper we will focus on three areas of concern as they relate to preventing pressure injuries:

- Mobility
- Moisture
- Patient size and weight

FOCUS ON: MOBILITY

According to the 2019 NPIAP Guidelines, the primary contributing factor in the development of a pressure injury is impaired mobility. Patients who are unable to move or adjust their own weight are at greater risk due to the sustained pressure and shear that damage the structures of the cells. Damage to the cells triggers an inflammatory response as evidenced by development of edema, ischemia (non-blanching) and alterations in skin temperature in the area of injury.

The primary contributing factor in the development of a pressure injury is impaired mobility.

To offset the impact of immobility, the patient should be placed on a pressure redistribution surface and turned or repositioned on a routine schedule to provide some relief to the compressed skin area and promote better perfusion of the tissue. Turn schedules should be based on the individual patient's response instead of the standard every-two-hour schedule, because some patients require more frequent turning to support tissue reperfusion. Optimal turn schedules require a better understanding of the patient's ability to assist with their own mobility, as well as the pressure redistribution capacity of the surface the patient is placed upon.

If the patient is unable to turn on their own, the care team will need to support the activity. Protocols for turn schedules should consider how the team is turning the patient and what types of equipment and resources are needed to safely accomplish the task. The American Nurses Association discourages manual lifting or moving more than 35 pounds of the patient's weight.[5]

Manual lifting during turning and repositioning activities places the caregiver at risk of a musculoskeletal injury. With the ever-present shortage of caregivers, we need to be aware that our clinical practices don't put the care team at risk of a workplace injury. Working with your care team to develop guidance on when to reposition the patient and how to safely reposition the patient in bed using lift equipment helps create a standardized practice protocol that aligns patient and worker safety.

Consider the following

Use staging cards designed to help nurses improve assessment knowledge and skill for light and darkly pigmented skin, developed by Hillrom and the NPIAP.

Help care teams assess mobility limitations when turning and repositioning the patient with the Bedside Mobility Assessment Tool (BMAT).

BMAT LEVEL	TASK
ASSESSMENT LEVEL 1 Hemodynamic stability Trunk strength Seated balance	**Sit and Shake**
ASSESSMENT LEVEL 2 Lower extremity strength Stability	**Stretch**
ASSESSMENT LEVEL 3 Lower extremity strength for standing	**Stand**
ASSESSMENT LEVEL 4 Standing balance Gait	**Step**

Enhanced Turn Assist on the Centrella® bed allows you to turn and reposition a patient up to 30 degrees in 30 seconds, which is up to 77% more effective than other beds.[6]

FOCUS ON: MOISTURE

MOISTURE-ASSOCIATED SKIN DAMAGE (MASD)

MASD is often seen as a result of prolonged moisture on the skin in the form of perspiration due to increased body temperature, saliva, incontinence or other fluids. Moisture in any form weakens skin integrity while at the same time increasing the coefficient of friction that leads to skin injuries and is associated with pressure injuries.[7]

To counteract MASD risk, we turn to Advanced Microclimate® technologies that remove heat, cool and dissipate moisture. A powered low air loss surface circulates air beneath a vapor-permeable surface cover to help lower skin temperature and humidity levels between the surface and the patient's skin. The circulating air allows for cooling of the skin and controlling moisture dissipation to prevent unwanted moisture on the skin that may cause damage, especially when combined with friction.

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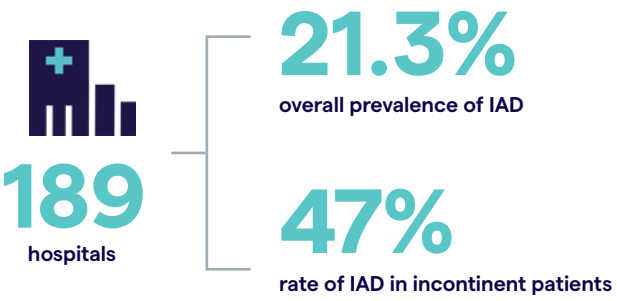
Migration occurs when the patient unintentionally slides down in bed and needs to be repositioned toward the head of the bed. The care team is then faced with finding a safe way to return the patient toward the head of the bed without causing friction that is often produced by manually repositioning or pulling the patient up in bed using a draw sheet. Several studies on patient migration in bed indicate that the friction, in combination with moisture, likely contributes to the development of pressure injuries.[8,9]

Consider this.
Address friction associated with patient migration with Hillrom's unique Stay-In-Place™ Technology. The Advanced SlideGuard® feature can also expand the seat by 6" to prevent the patient from sliding down in bed.

INCONTINENCE-ASSOCIATED DERMATITIS (IAD)

IAD is a form of MASD and is categorized as skin damage related to prolonged exposure of the skin to urine and/or feces. Incontinence is a known independent risk factor for pressure injuries.[10] Skin damage from urine has been shown to occur in as little as 15 minutes after exposure time.[11] One large study that included 189 hospitals shows the overall prevalence of IAD at 21.3%, with a rate of IAD in 47% of incontinent patients.[12]



Targeting toileting and hourly rounding certainly helps address the patient's need to go to the toilet and may minimize incontinence events. Patients who cannot actively communicate the need to go to the toilet may be left in diapers or on a moisture wicking pad for several hours until the next rounding event if the care team is not notified. Left waiting in a diaper or on an incontinence pad for hours can negatively impact not only the skin, but also the patient's dignity and their health care experience.

Consider this.
New technologies that can discretely notify the care team when an incontinence event occurs are available today, like the WatchCare™ Incontinence Management System from Hillrom. This may help minimize the time skin is exposed to moisure.

FOCUS ON: PATIENT SIZE AND WEIGHT

Individuals with a higher Body Mass Index (BMI) can be at greater risk for a pressure injury. This is especially true if they have mobility challenges or experience any existing stress incontinence or diaphoresis that may expose them to additional moisture on the skin. NPIAP Guidelines state that pressure redistribution and microclimate management should be a requirement when caring for a patient of size due to the higher risk.

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When selecting the right bed and surface, always consider the girth and shape of the patient, as well as the weight of the patient. A standard 36" surface may not be adequate for a patient who carries most of their weight in the hips or in the abdomen, even if their weight is under the recommended weight capacity of the bed frame. A patient of size may benefit from a wider bed frame and surface that allows the patient greater ability to self-adjust or shift their own weight when possible.[13]

Selecting the right bed with the right surface and advanced technologies helps give you peace of mind that you are addressing mobility, moisture management and the properly sized bed for your patients' comfort and pressure injury prevention.

Consider this.
Surfaces should be tailored to the patient's risk of skin breakdown, which is why Hillrom offers a full suite of surfaces that can address every acuity level. The Centrella® Smart+ Bed frame also comes in a 40" option, which provides an extra 11% of space to accommodate a broader patient population and allow for easy turning.

A LASTING IMPACT: PRESSURE INJURIES

Patients with a hospital acquired pressure injury (HAPI) often report increased levels of pain, especially during movement. This may contribute to a decrease in their likelihood to participate in the activities most people take for granted as part of everyday life. Patients also report sleep disturbances and feeling self-conscious about appearance or odor from their pressure injury.

The psychological and social impact of developing and recovering from a HAPI leaves many without adequate financial or assistive resources to heal the pressure injury, making it difficult to return to their previous quality of life. Some patients may require temporary post-acute or residential facility placement while the pressure injury heals, thus increasing the financial burden of HAPIs on the facility during the stay, as well as the patient after discharge.[14]

Research efforts, using pressure injury prevalence and incident rate data, along with review of treatment protocols and their outcomes, help Wound and Ostomy Care Nurse (WOCN) experts determine best practices and offer improved guidance and protocols to prevent and treat pressure injuries. Precise assessment, understanding the root cause and selecting the proper treatment is essential if we are going to reduce the frequency and severity of HAPIs in the health care environment.

CLINICAL CONSIDERATIONS

Clinicians armed with the most recent research and knowledge around prevention and treatment—and having protocols designed to eliminate variation in care practices—are better equipped to provide evidence-based care and achieve consistent results. Consider a thorough review of the NPIAP Guidelines and compare the recommendations to your current skin protocols.

Contact your local Hillrom representative for more details on how we can help you make a difference in preventing pressure injuries with support from our clinical experts and Smart Technologies.

TOGETHER, WE CAN DO SOMETHING ABOUT PRESSURE INJURIES

Call 1-800-445-3730 or visit hillrom.com to learn about the products, services and support available to you, your care teams and your facility.

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130 E. Randolph St. Suite 1000, Chicago, IL 60601

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