#### PRESENTATION DIGEST

# Mölnlycke Sponsored Learning: Pressure Injury Prevention

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Pressure Injury Prevention –No Longer a Mystery De CHARLEN LINGTIFIC UNA MAXIE PRACT CHARLEN LINGTIFIC UNA MAXIE PRACT CHARLEN LING

# Pressure Injury Prevention: What We've Known



Since the time of Florence Nightingale, there has been an understanding that both time and pressure can contribute to tissue injures. The severity of both time and pressure can amplify one another, predisposing patients to pressure injuries (PIs). A low amount of pressure over an extended period of time or a high amount of pressure over a short period of time can both cause PIs. Additionally, intrinsic patient factors, such as nutritional status (e.g., dehydration) and comorbidities (e.g., anemia, inflammatory diseases), may increase the likelihood of the patient developing PIs. Regular turning of the patient (i.e., every two hours) is a well-established strategy to relieve pressure and prevent PIs. Good skin care and hygiene are also important components of pressure injury prevention.

## The Evolution of Pressure Injury Prevention

Pressure injury prevention research and strategies have evolved tremendously with the help of technology and engineering. Pressure mapping and pressure measurement have been used to identify areas of highest risk of skin breakdown (e.g., bony prominences) and to evaluate pressure relieving modalities (e.g., support surfaces). Moreover, recent research for pressure injury prevention includes the use of 3-dimensional anatomical modelling and computer simulation. These models and simulations have been utilized to evaluate the efficacy of prophylactic dressing application and pressure reduction.<sup>1,2,3</sup>

## The Impact of Pressure Injuries

The management and treatment of PIs is financially costly to the health-care system. It can also strain the system by increasing the amount and complexity of work for medical professionals, especially nurses, drawing them away from other important tasks. PIs can also be burdensome to the patients' families and caregivers, who are integral members of the care team. They are often relied on for tasks like driving the patient to and from appointments and dressing

Devastating statistics across the age spectrum	Rates as high as 28% across intensive care units of all ages	Life altering pressure injuries over heels	Body image
Activity of daily living	Burden on Families/Caregivers	Cost on health care	Estimates of \$70,000 U.S. per pressure injury

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Table 1. Costs Associated with PI Occurrence				
	2018	2019	2020	
Number of Pls	206	54	26	
Estimated cost of PIs, \$	2,204,200	779,086	536,488	
t-Test year over year		p= 0.00018	p=0.2237	
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Table 2. Cost of PI Prevention				
	2018	2019	2020	
Cost of prevention, \$	13,944	123,930	375,954	
t-Test year over vear			p=0.315	

changes. These tasks can add physical and mental stress to the patients' families and caregivers. More importantly, PIs can be devasting to patients. They can affect the patients' general health, mobility, activities of daily living and mental health.

Pressure injury prevention is not always intuitive in the hospital setting. Often times it can be difficult to balance the need to maintain physiologic stability and skin integrity. For example, it is good practice to turn the patient routinely for pressure relief. However, a patient who recently had orthopedic surgery and requires a period of immobilization may not be suitable for turning. Additionally, implementation of pressure injury prevention strategies can add extra stress and physical strain to the medical staff.

As the saying goes, "an ounce of prevention is better than a pound of care." The cost savings of pressure injury prevention is tremendous. A study in 2021 demonstrated that the implementation of a pressure injury prevention bundle in a health care facility led to a significant decrease in pressure injury occurrences and associated cost (over \$2 million) over two years.<sup>2</sup> The bundle included patient positioning systems (i.e., Mölnlckye® Tortoise® and Z-Flo™ fluidized positoners), specialized dressings (e.g., sacral and border heel foam dressings), pressure offloading devices (Mölnlckye®Z-Flex<sup>™</sup> boots) and standardized work flow for the medical staff.

### Pressure Prevention as a Bundle

Pressure prevention strategies can be effectively implemented with a bundled approach. The following steps can guide the implementation of a pressure prevention bundle:

Step 1: Have policies in place for workflow

Step 2: Have supplies (e.g., support surfaces, dressings, turning aids) ready to go

Step 3: Educate staff on implementation

Step 4: Have clear guidelines of when to implement the bundle.

### Molnlycke<sup>®</sup> Tortoise<sup>®</sup> Turning & Positioning System



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### To access the full presentation click here:

https://drive.google.com/file/d/1rF\_gk1D5b1\_ AcgpOi1sZbcsHFlLtF\_wr/view?usp=drive\_link

## References

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3. Gefen A, Alves P, Creehan S, Call E, & Santamaria N. Computer modeling of prophylactic dressings: An indispensable guide for healthcare professionals. Advances in Skin & Wound Care 2019;32(7S Suppl 1): S4–S13.



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