**Patient Engagement through Advanced Pressure Visualization as a Component of Pressure Injury Prevention**

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**Introduction**

Hospital-acquired pressure injuries represent one of the most frequent health care problems in clinical practice. Burn patients specifically pose a greater challenge due to:

- loss of skin integrity
- post-op positioning requirements
- high levels of moisture.

As an adjunct to unit based standard of care, a new technology was initiated to identify if pressure visualization will encourage patient engagement in repositioning as a component of pressure injury prevention.

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**Statement of Significance**

The purpose of this project is to evaluate the impact of a new advanced pressure visualization (APV) system** on patient engagement and HAPI quality outcomes.

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**Data Source/Population**

*Pressure monitoring on current high-end mattress*

The APV pressure sensor mat and tablet were installed on 10 beds, displaying their body image with continuous pressure readings. Utilizing a color gradient to exhibit pressure values, patients were educated on the significance of each color in the gradient related to high - low pressure.

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**Results**

**Hospital Acquired Pressure Injuries by Month**

*Burnett Burn Center*

95% reduction in HAPIs

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**Peak Pressure Reduction**

44% reduction in peak pressure with APV

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**Conclusion**

Patient engagement through use of the APV contributed to the reduction of pressure injuries.

The National Pressure Ulcer Advisory Panel prevention and treatment guidelines encourage patients to work with the health care team to develop an individualized pressure ulcer prevention plan.

With APV, the patient can easily:

- identify high areas of pressure
- actively participate in pressure reduction measures

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**Lessons Learned**

- We underestimated the value of patient and family involvement in this process
- Just-in-time education had to be completed with float pool staff
- Device cannot be utilized on bariatric or air fluidized beds
- Real-time feedback and recommendations from bedside staff have been utilized in ongoing device improvement

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**Acknowledgments**

The staff and physicians of the inpatient Burnett Burn Center whose support, engagement, and leadership were instrumental in the ongoing success of this quality initiative. The unit based superusers were instrumental in the education and integration into daily practice.

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**References**


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