

# Utilization of Innovative Wound Care Technologies in Pressure Injury (PI) Assessment and Treatment: A Quality Improvement Wound Ostomy Continence (WOC) Nurse Lead Initiatives

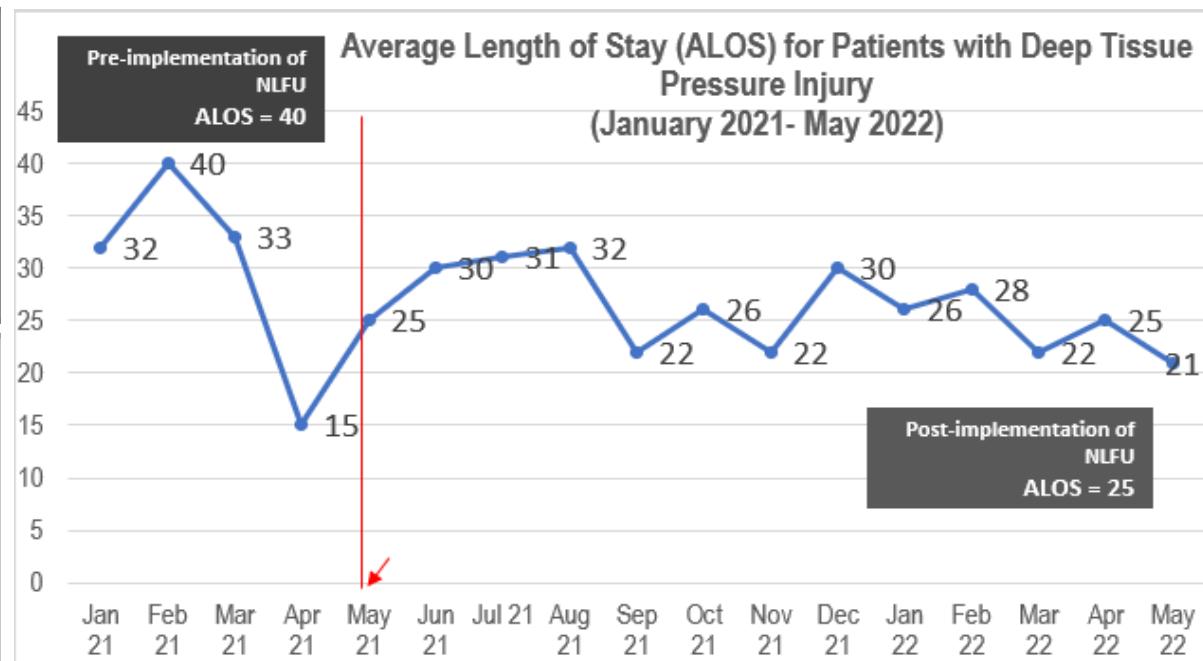
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## Background

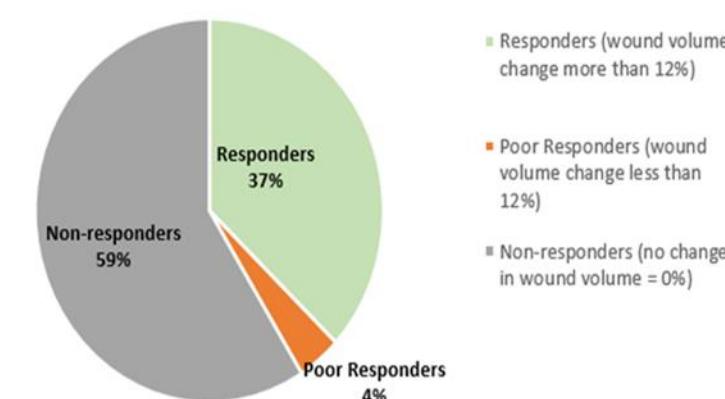
Hospital-acquired pressure injuries (HAPI) are localized skin injuries that cause significant morbidity and are costly. Rates remain high in facilities with \$9.1 to \$11.6 billion annually. Increase of HAPIs with decreased reimbursements from CMS in FY 2019 was noted.

## Purpose

This facility noted HAPI rates with anticipated increase due to COVID-19. WOC Nursing team lead the taskforce and identified barriers. Goal was to decrease HAPI by 20% from 2019 baseline rate of (10.15) wounds at end of 2022, as measured by PI cases reported in organization's visual analytics platform.



## % of Patients Wounds Responding to NLFU FY 21-22



## Methods

WOC nurses played vital role in implementation of innovative PI prevention bundle. Adjudication process utilizing electronic data capture, acute skin failure, education, OR table overlay, and use of non-contact low frequency ultrasound (NLFU) were initiated. Long wave infrared technology (LWIT) was added to prevention bundle as adjunct to detect thermal anomalies in Deep Tissue PI occurrence, guiding treatment upon early detection. Focusing on Deep Tissue Pressure Injuries/DTPI with early detection using LWIT and treatment with NLFU helped in reduction of the HAPI rate. Additionally, utilization of LWIT in darker skin tones guided earlier interventions, treatment and assisted with health equity. These tools and modalities were implemented by a multidisciplinary approach, including CWOCNs, PTs, MDs, RNs and leadership support.

## Outcomes

PI prevention efforts with WOC Nurses as leaders exceeded goal of 20%. Rate of HAPIs: Yr. 2020=14.7 (44.5%↑;  $p>0.05$ ); Yr. 2021=1.9 (81.2%↓;  $p<0.01$ ); Yr. 2022= 0.5 (95.5%↓;  $p<0.01$ ). Estimated \$4 to \$7 million in savings. Responders to NLFU = 37%, non-responders = 59% and experienced skin failure and/or demise. Additional outcome includes reduction in average length of stay (ALOS).

## References

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