Joerns® HEALTHCARE

From Advocacy to Sustained Prevention:

A Success Story

A SICU Manager-Led Success Story in Eliminating ICU-Acquired Pressure Injuries at a Southern California Hospital

WHITE PAPER

Author: Michael Fragala , PhD, MBA, RN, WCC, CSPHP, AMS Vice President, Clinical Solutions

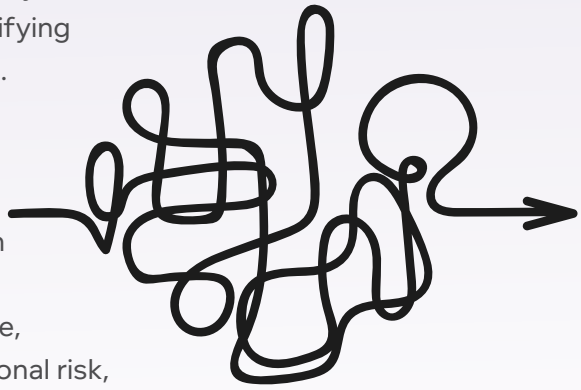
EXECUTIVE SUMMARY

Hospital-acquired pressure injuries (HAPIs) remain among the most preventable yet costly adverse events in acute care, particularly for critically ill patients who face immobility, hemodynamic instability, impaired perfusion, and limited tolerance for repositioning. At a hospital in the greater San Diego area, part of a larger Southern California health system, the Surgical Intensive Care Unit (SICU) achieved a remarkable clinical milestone after implementing Dolphin® Fluid Immersion Simulation® (FIS) support surfaces: **zero ICU-acquired pressure injuries over an eight-month period.**

This success story is rooted in the advocacy and persistence of the SICU manager, who recognized that prevention required more than a product decision. It required clinical leadership, alignment across stakeholders, staff confidence, workflow fit, and a clear business case. The result was a sustained prevention model that protected high-risk patients, reduced avoidable harm, and demonstrated a compelling financial impact through avoided preventable costs.

THE CLINICAL CHALLENGE

While the SICU's pressure injury performance was already below national benchmark averages, unit leadership remained committed to identifying opportunities to further reduce avoidable patient harm. Rather than viewing benchmark performance as the endpoint, the team sought to strengthen prevention efforts for its highest-risk patients and continue advancing quality outcomes. Pressure injury prevention in the ICU is uniquely complex. Critically ill patients often experience prolonged immobility, vasopressor use, compromised perfusion, medical device burden, nutritional risk, and limited tolerance for frequent turning. These factors make traditional prevention strategies difficult to execute consistently, even in high-performing clinical environments.



Within the SICU, the manager identified an opportunity to further strengthen prevention for the highest-risk patients while minimizing disruption to existing workflows. The desired solution needed to:

- **Improve prevention** for high-risk, complex patients
- **Reduce reliance** on reactive wound care interventions
- Implement a solution that could **integrate into existing workflows** without excessive operational burden

THE ROLE OF SICU MANAGER ADVOCACY

The success of this initiative was driven by frontline clinical advocacy. The SICU manager served as the champion, aligning patient safety operational requirements, and financial considerations around a common prevention strategy.

The manager's leadership focused on four essential elements:

Clinical Urgency: Targeting the highest-risk patients

Workflow Realism: Selecting a solution compatible with existing nursing practice and bed-frame infrastructure

Staff Confidence: Supporting adoption through ease of use

Executive Alignment: Connecting prevention to quality and financial outcomes

This manager-led advocacy created the conditions for sustained implementation, not simply short-term product deployment.

IMPLEMENTATION OVERVIEW

Six Dolphin® FIS surfaces were deployed in the SICU for patients identified as highest risk. Implementation focused on rapid access to therapy, integration with existing care processes, and alignment with the unit's broader prevention and treatment protocols. Hospitals seeking to replicate the model should establish clear patient selection criteria, ownership, education requirements, and outcome monitoring expectations before launch.

Key implementation advantages included

- Rapid deployment to high-risk patients
- Integration into established SICU care processes
- Support for prevention and treatment pathways

CLINICAL OUTCOMES: EIGHT MONTHS WITHOUT A SICU-ACQUIRED PRESSURE INJURY

The hospital defines a pressure injury in alignment with the National Pressure Injury Advisory Panel as localized damage to the skin and/or underlying tissue, typically over a bony prominence or related to a medical device, resulting from prolonged pressure or pressure in combination with shear. Within the SICU, nurses conduct regular rounds and comprehensive skin and tissue assessments, with the frequency adjusted to each patient's clinical needs and increased when warranted by the unit's high-acuity population. Findings are documented and incorporated into the patient's individualized pressure injury prevention plan.

Following implementation, the SICU reported **zero unit-acquired pressure injuries** over an eight-month period. In this high-acuity environment, the sustained result provides an important internal proof point that the support-surface strategy, implemented alongside the unit's broader pressure injury prevention practices, was associated with improved prevention performance.

- Effective risk mitigation at the point of care
- Improved predictability for high-risk ICU patients
- Greater staff confidence in prevention capability
- A transition from reactive wound management to proactive prevention

Following implementation, the SICU reported zero unit-acquired pressure injuries over an eight-month period.

*This single-unit case study summarizes outcomes reported during the eight months following implementation. The analysis was observational and did not include a randomized comparator or isolate the contribution of the support surface from concurrent prevention practices. Results may not be generalizable to other units or patient populations. Financial estimates are scenario-based projections and represent potential cost avoidance rather than audited savings.

FINANCIAL IMPACT MODELING

The financial model below extends the analysis to reflect the eight-month period of sustained performance. The model uses conservative assumptions from the internal baseline calculation.

Baseline Assumptions

5.1 DAYS	48 PATIENTS	6 UNITS	$112,000 PER CASE
Average ICU length of stay	Patients per Dolphin surface over eight months	Total Dolphin surfaces deployed	Estimated HAPI cost in California model

Source Note: The 5.1-day length-of-stay assumption reflects the 2023 U.S. all-inpatient average and should not be interpreted as an ICU-specific benchmark. The $112,000 per-HAPI estimate, and patient-use calculation are internal planning assumptions and should be validated against the hospital's own measurement period, case mix, HAPI definitions, and cost-accounting methodology. Clinical descriptions of Fluid Immersion Simulation should be supported by current product documentation and published evidence of outcomes, including the 2025 evaluation of 600 patients nursed on Dolphin Therapy.

8-Month Estimate

240 DAYS	Total Days
~288 PATIENTS	Patients Impacted
~24 CASES	Estimated avoidable HAPIs

Estimated Avoided Costs: ~$2.7M

Initial Investment: ~$114K

- ✓ Avoided liability risk
- ✓ Reduced length of stay
- ✓ Staff time savings
- ✓ Improved patient satisfaction metrics

*The model assumes approximately 288 patient uses over eight months and estimates 24 avoidable HAPI cases. Multiplying 24 modeled cases by $112,000 per case produces approximately $2.688 million in potential avoided cost. Hospitals should replace these assumptions with their observed ICU HAPI incidence, stage distribution, attribution methodology, case mix, and fully loaded cost per case before using the model for a purchasing decision.

OPERATIONAL IMPACT

Beyond clinical outcomes, the initiative improved access to advanced support surfaces, reduced rental dependency, and integrated smoothly into existing ICU workflows.

1. Workflow Efficiency
   - No reliance on external rental equipment
   - Faster deployment to high-risk patients
2. Staff Adoption
   - Minimal training burden
   - Easy integration into standard care workflows
3. Flexibility
   - Adaptable across multiple patient types
   - Supports both prevention and treatment pathways

STRATEGIC IMPLICATIONS

The hospital's SICU experience reframes pressure injury prevention as a leadership-enabled, system-level opportunity. The outcome was not achieved by technology alone. It was achieved through the combination of advanced support-surface capabilities, frontline advocacy, workflow fit, and disciplined focus on high-risk patients.

From:

- Unavoidable ICU complication
- Reactive wound care management
- Isolated clinical improvement initiatives

To:

- Preventable harm category (demonstrated)
- Standardizable ICU prevention model
- Repeatable system-level strategy

SCALING OPPORTUNITY ACROSS HEALTH SYSTEMS

The central question for health system leaders is no longer whether ICU pressure injury prevention can improve. The SICU experience demonstrated three important indicators of scalability:

Proven internal success

8-month sustained outcome

Strong financial justification

THE KEY QUESTION BECOMES:

> If one ICU can eliminate HAPIs for eight months, what is the system-wide impact of scaling that model?

FOR A MULTI-HOSPITAL SYSTEM, EVEN PARTIAL REPLICATION COULD YIELD:

MULTI-MILLION-DOLLAR ANNUAL AVOIDED COSTS

STANDARDIZED HIGH-RISK PATIENT PROTOCOLS

REDUCED VARIABILITY IN ICU OUTCOMES

*A hospital evaluating a similar strategy should conduct a multidisciplinary review involving nursing, wound care, quality, value analysis, finance, biomedical engineering, supply chain, infection prevention, and environmental services. The review should establish a local baseline, define the target patient population, confirm compatibility between bed frames and cleaning, set education and escalation responsibilities, and agree on clinical, operational, and financial measures before deployment.

CONCLUSION

This case study demonstrates how frontline leadership, effective technology adoption, and disciplined prevention practices can improve outcomes for high-risk ICU patients. Eight months without a reported SICU-acquired pressure injury provides an encouraging internal result and supports further evaluation of the model across additional units.

- Sustained elimination of HAPIs is achievable
- Targeted intervention in high-risk patients is effective
- Clinical excellence and financial performance can align

EXECUTIVE CLOSING STATEMENT

"This is more than a pressure injury prevention story. It is a leadership and implementation story—evidence that clinical advocacy, workflow alignment, advanced prevention technology, and sustained measurement can help an ICU reduce avoidable harm and build a model worthy of broader evaluation."

ABOUT JOERNS HEALTHCARE

Joerns Healthcare provides healthcare technology and related services for patient care across the post-acute continuum. It is dedicated to simplifying this process by providing practitioners with the products, technology and data they need, allowing them to concentrate on patient care. Joerns also offers over 130 years of experience and a national service footprint that help clinicians navigate the complexities of modern accountable care while optimizing patient outcomes and cost.

info@joerns.com

800.826.0270