

Case Study

FIRST HERCULES CUSTOMER, THROUGH REPEAT PURCHASES IN SEVERAL AREAS OF THE HOSPITAL, HAS REALIZED SIGNIFICANT BENEFITS IN CAREGIVER SAFETY, HAPI REDUCTIONS, CAREGIVER EFFICIENCY, AND BOTH PATIENT AND CAREGIVER SATISFACTION.

Background

Nursing leadership at Memorial Hospital and Health Care Center (Memorial), a 143-bed hospital facility in Jasper Indiana, had budgeted to purchase bedside computers for their ICU when they first learned about The Hercules Patient Repositioner (Hercules) at a nursing leadership conference in late 2013. Hercules made such an impression with the nurse leaders that they had The Morel Company demonstrate it at their next nursing practice council. After careful consideration, the clinical nurses and leadership team jointly decided to use the money budgeted for bedside computers instead on Hercules, becoming the first customer to purchase this innovative product. It wasn't long after Hercules arrived in the hospital when other areas began to take notice and started switching their own budgeted dollars to purchase Hercules.

ICU

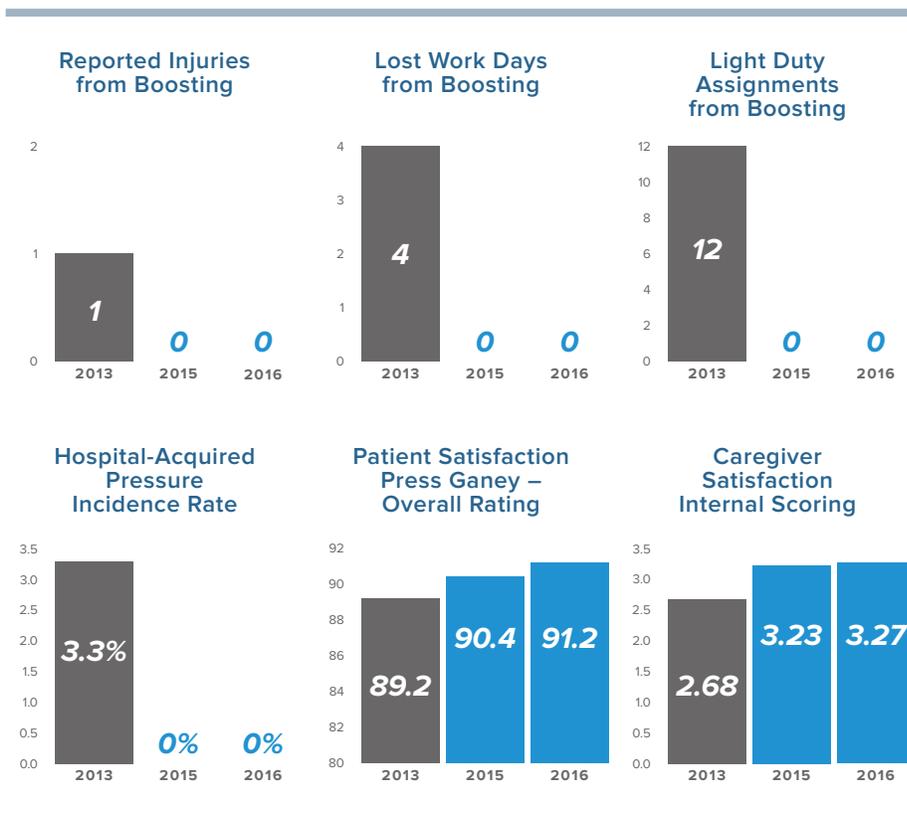
In March of 2014, Ann Steffe, Director of Critical Care Services, and the ICU staff at Memorial became the first hospital to purchase Hercules when they installed 18 systems on all the beds in their unit. Reflecting back on the purchase, Ann says, "I expected the result to be nurses experiencing fewer back injuries but I didn't anticipate that they would virtually disappear." But what was even more surprising to her and the other managers in the ICU was how they immediately perceived a shift in the daily nursing patient-care activities. "I am excited that our nurses are providing more patient-centered care and performing fewer manual tasks," said Ann, "and I no longer hear 'I need help with a repositioning boost' coming from the hallways."

In the two 12-month periods following their installation Hercules has positively impacted the following important statistics tracked by the hospital's ICU:

- The number of reported caregiver injuries, lost workdays and light duty assignments all decreased to 0 in both years.
- Hospital Acquired Pressure Incidence Rate in the ICU went from 3.3% to 0% and has remained there.
- Patient satisfaction, as measured by the "Overall Rating" on Press Ganey survey results, went up by 1.3% and 2.0%.
- Caregiver satisfaction, as measured by annual employee survey results, went up by 21% and 22%.

Looking back at these improvements, Ms. Steffe said, "Hercules has worked out tremendously for everyone and in many ways we didn't even anticipate!"

HERCULES 2-YEAR IMPACT IN 18-BED ICU



Memorial Hospital Case Study

Post-Acute

It didn't take long for Hercules' success in the ICU to travel around the hospital. Cheryl Welp, Executive Director of Post-Acute Services, recognized the benefits Hercules could provide her Skilled Care and Inpatient Rehab units. "We had a problem with nursing injuries before we got Hercules, especially with staffing at night where we frequently only had two caregivers working," commented Ms. Welp, "and we often didn't have the manpower to boost the patients when they needed boosting."

The Skilled Caring Center had a different issue to deal with prior to purchasing Hercules. Specifically, they had budgeted and were scheduled to receive 18 new beds with mattresses that did not include Hercules. After realizing that Hercules provided significantly more value than the bed/mattress products she ordered, Cheryl changed the model of beds they were getting so that they could purchase a bed/Hercules combination for essentially the same price.

"Since we have been using Hercules, staff efficiency has gone up and the nurses now have enough time to get all of their work completed helping us to significantly reduce overtime expenses," said Ms. Welp. "The patient reaction has also been great. I hear many compliments about the comfort of pain-free boosting. In fact, the first patient placed on the Hercules mattress had a broken hip and shoulder and cried with joy when she first experienced Hercules because it was now painless. We have even received Press Ganey surveys that specifically mentioned how our patients liked being repositioned on our Hercules mattresses. This is the first time I recall a product ever being mentioned on the survey."

Labor/Delivery and Med-Surg

But, the Hercules story doesn't end there. Like most hospitals, the caregivers at Memorial often travel to other care units to assist when staffing needs require it. This included nurses from Labor and Delivery and Med-Surg units, who were amazed at how easy it was to use Hercules. They too went back to their managers and began petitioning to get Hercules on their beds.

Patty Scherle, Director of Women and Infant Services, was on the receiving end of these requests, and the timing couldn't have been more appropriate. "We had a 32-year old nurse who tore her rotator cuff boosting an expectant mom during a delivery. She had to have surgery and was off work for 24 days, so this was clearly a hot topic. Since most maternal patients have epidurals, they are unable to help reposition themselves and the nurses end up doing all the lifting and boosting manually. This occurs at least 5 to 6 times per delivery," said Patty. "From a clinical perspective there are critical times during labor and delivery where we have to focus on both mom and baby and not waste time pulling the patient up – Hercules on our birthing beds allows us to do just that."

The Med-Surg caregivers were no different in their desire to have Hercules too. "We weren't the first area to get them at the hospital, but perhaps the anticipation of getting them made us appreciate them even more," says Suzanne Burgess, Director of Post-Surgical & Pediatrics, who also manages clinical education and the orthopedic and wound care programs at Memorial. Ms. Burgess added, "We have had patients who have returned to the hospital who were originally on Hercules, and the moment they return, the first thing they ask for is to make sure we put them back on that comfortable mattress that pulls them up automatically. We've needed something as simple and effective like this in healthcare for years."

Conclusion

Memorial Hospital and Health Care Center was the first Hercules customer and has been using Hercules for over three years. Even now, the staff's excitement about sharing their Hercules experiences with others hasn't diminished at all. Tonya Heim, Vice President of Patient Services and Chief Nursing Officer, goes one step further when she says, "When nurses who have used the Hercules product look back on their career, they are going to look at that innovation and they are going to say WOW, what a difference that made in my life!"

TORN ROTATOR CUFF

1

32 Year
Old Nurse

24

Lost
Workdays

72

Light Duty
Days

"When nurses who have used the Hercules product look back on their career, they are going to look at that innovation and they are going to say WOW, what a difference that made in my life!"

Tonya Heim,
Vice President of Patient Services
and Chief Nursing Officer

Case Study

SYSTEM-WIDE HERCULES IMPLEMENTATION RESULTS IN SIGNIFICANT PATIENT AND CAREGIVER BENEFITS

Background

Reid Health, located in Richmond, IN, is a not-for profit 223-bed regional referral medical center serving east central Indiana and west central Ohio. Reid is a nationally recognized leader in Quality of Care, including being named one of Thomson Reuter 100 Top Hospitals.

In October of 2014, Reid became one of the first hospitals in the country to offer a new and innovative technology that makes the lives of its patients and its caregivers safer and more comfortable when it decided to standardize its beds with The Hercules Patient Repositioner™ (Hercules). Hercules allows a single caregiver to quickly and safely boost a patient, who has slid down in bed, back up in bed with the simple push of a button. Now, Reid patients do not need to go through the pain, discomfort and sometimes embarrassment that has traditionally been associated with pulling a patient back up in bed.

To track the effectiveness of this initiative, Reid nursing administration completed annual comparisons of several key metrics to see if Hercules had actually impacted the patient and caregiver experience. Important metric data was collected for the year before Hercules was introduced (2013) and compared with the same data in subsequent full calendar years after Hercules was installed (2015 & 2016). These key metrics included caregiver injuries, hospital acquired pressure injury rates and patient satisfaction. Summary results and conclusions from this research are provided below.

Results

PATIENT SATISFACTION SCORES INCREASE

“The feedback from patients and from staff has been tremendous,” said Kay Cartwright, Reid Vice President Continuum Care/Chief Nursing Officer. Greg Shock, Reid Nursing Finance and Special Projects Manager commented that while he cannot attribute this solely to Hercules, “I do believe that it has been a strong contributor in the increase we have seen in our Press Ganey overall patient satisfaction ratings.”

“Our patients love the fact that two or three people don’t have to help move them up in their beds, and it also reduces staff time and reduces risk of injury,” said LuAnne Christofaro, Director of Quality Assurance at Reid. “One caregiver can often boost a patient safely in just a few seconds,” Christofaro said, adding “that before Hercules was on all of our beds, boosting was often uncomfortable for the patient and sometimes even embarrassing.”

Michelle McClurg, Director of Patient Experience, said Reid is always seeking technologies that improve the experience for its patients and improve efficiency for their staff. “We know that a hospital stay in itself often involves discomfort because of illness. Anything that we can do to help reduce that discomfort and preserve the patient’s dignity is something we always want to do.”

“This is a product which meets multiple needs—caregiver efficiency, patient and staff safety—and allows great improvement in the patient experience when someone has to be in a hospital bed.”

Kay Cartwright
Vice President,
Continuum of Care, CNO
Reid Health

Reid Health Case Study

CAREGIVER INJURIES DROP 57% AND 71% LIGHT DUTY ASSIGNMENTS REDUCED 72% AND 100%

Since Reid has been using The Hercules Patient Repositioner, the number of reported caregiver injuries has dropped significantly. The number of reported injuries related to patient repositioning for the 1st and 2nd years after the Hercules installation dropped 57% and 71%, respectively when compared to the base year. The number of light duty assignment days for caregivers as a result of injuries went from 94 to 26 and 0, or a 72% and 100% reduction. Of particular note is that no injuries, lost work days or restricted activity days have been associated with boosting on the beds outfitted with Hercules.

HAPI INCIDENCE RATES DECREASE 67%

From a clinical standpoint, Reid has seen a dramatic reduction in their incidence of hospital acquired pressure injuries (HAPIs) since introducing Hercules. In 2013, our HAPI incidence rate was 6.1% compared to 2015 and 2016, where the rate dropped to an average of 2.0%, representing a 67% decrease. Cartwright added “Not only does the system reduce the friction and shear often associated with traditional repositioning, but I strongly believe that we have impacted our patients’ care and well-being by keeping them up in bed where they are both more comfortable and at less risk for skin breakdown. Additionally, by using Hercules, we have seen a significant reduction in our specialty bed rental expenditures.”

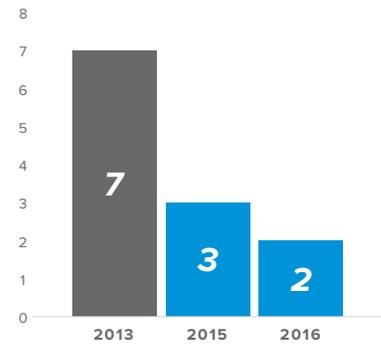
“Making the decision to standardize on Hercules was a win-win for everyone involved.”

Kay Cartwright

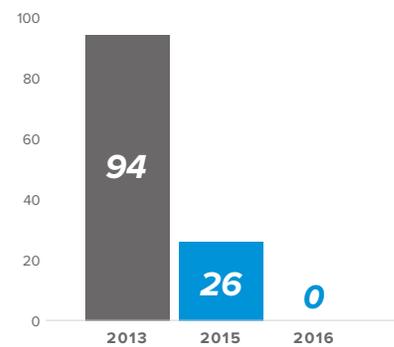
Conclusion

“We are really happy that we found The Hercules Patient Repositioner™. This is a product which meets multiple needs — caregiver efficiency, patient and staff safety — and allows great improvement in the patient experience when someone has to be in a hospital bed. Making the decision to standardize on Hercules was a win-win for everyone involved,” said Cartwright.

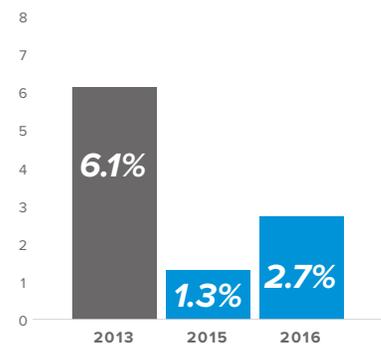
Reported Caregiver Injuries



Restricted Activity Days



HAPIs Incidence Rates



Case Study

HERCULES PURCHASE AND EASE OF USE, ALONG WITH CHANGING NURSING PRACTICES, RESULTS IN A SIGNIFICANT REDUCTION IN HAPI INCIDENCE RATE.

Background and Project Objective

Founded in 1829 as the first community hospital in the Carolinas, Roper Hospital today is part of Roper St. Francis Healthcare located in Charleston, SC. Roper Hospital is a not-for-profit 368-bed hospital that in 2017 was awarded the Healthgrades Outstanding Patient Experience Award for providing an overall outstanding patient experience as reported by patients. Roper has also been named a Top 100 Hospital for the past three years by Truven Health Analytics. The healthcare system’s mission is, “Healing all people with compassion, faith and excellence.”

In May of 2015, Roper became one of the first hospitals in the region to purchase The Hercules Patient Repositioner™, an innovative automated patient repositioning product that allows a single caregiver to quickly and safely boost a patient up in bed with the simple push of a button. Realizing the many positive benefits Hercules provided to both its patients and caregivers, Roper continued purchasing Hercules systems in 2016 while also developing a long-term plan to equip a large percentage of their beds with the Hercules system.

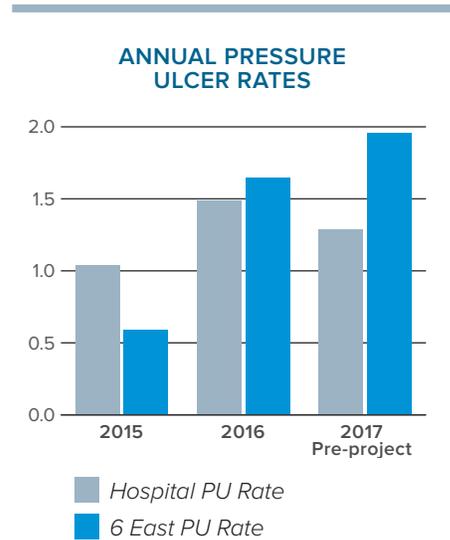
A portion of the Hercules purchased in 2016 were installed in a 22-bed medical surgical unit (6 East) that had experienced a significant increase in their HAPI incidence rate over the prior two years (see chart). The patients on this unit were very high acuity, experienced long lengths of stay and had a high risk of pressure injury development with Braden Scores typically ranging from 7 to 12.

Given the significant increase in the HAPI incidence rate on this unit, Angela Becker, RN, MSN, Manager of the CALM Department and Safe Patient Handling Specialist for Roper St. Francis Healthcare, developed and initiated a 20-week, evidenced-based research project in early 2017 on the 22-bed medical surgical unit. Kimberly Parker, RN-BC, MSN, Nurse Manager of 6 East, Denise Darling, RN, MSN, Clinical Nurse Specialist, and Mary Kate Skinner, RN, BSN, CWOCN, were also very closely involved with developing and executing the study. The purpose of the project was to determine if the ease of use of Hercules would influence nursing practices by removing the following barriers involved in traditional boosting and ultimately improve patient outcomes:

- Having the time to complete the manual boosting task
- Having to find additional caregivers to complete the boosting task
- Caregiver concerns that they might be injured manually boosting patients
- Traditional boosting methods cause patient pain and discomfort

As Ms. Becker explained, based on the latest research in Wounds Magazine July 2016, “HAPIs are considered a preventable injury that have been clinically associated with a lack of frequent boosting. Therefore, we were eager to determine if the simplicity and ease of using Hercules would impact the way our nurses care for their patients and if a nursing practice change would ultimately positively impact patient clinical outcomes.”

Ms. Becker’s belief was that if the project was successful, it would demonstrate that more timely and frequent boosting would result in a decrease in the incidence of HAPIs, improve their department’s HAPI scores and improve the patient experience.



“...the ease of using The Hercules Patient Repositioner™, along with the implemented changes in the patient boosting protocol, have shown that boosting a patient up in bed, even an inch or two every time a caregiver enters the room, produces positive tangible results.”

Kimberly Parker RN-BC, MSN
Nurse Manager, Roper Hospital

Case Study

HERCULES DELIVERS CAREGIVER SAFETY BENEFITS AS WELL AS IMPROVEMENTS TO THE PATIENT EXPERIENCE, EMPLOYEE SATISFACTION, CLINICAL OUTCOMES AND HELPS IN HOSPITAL'S MAGNET RE-DESIGNATION.

Background

The nurse back injury rate at The Christ Hospital, a 555-bed urban Magnet facility in Cincinnati, OH, was increasing even though nursing leadership was committed to workplace safety initiatives. In particular, one unit had seen a 500% increase over a two year period. This increase was significant enough to require the development of an immediate action plan focused on decreasing or eliminating these back injuries.

Action Plan

The action plan selected consisted of acquiring Hercules Patient Repositioners (Hercules) which would allow a single caregiver to reposition patients, weighing up to 500 lbs, back up in bed with the simple push of a button. 26 of the Hercules systems were installed in the hospital's kidney transplant and renal unit in June of 2014. Immediately after their purchase, both patients and caregivers experienced the ease, simplicity, safety and comfort of automated repositioning. Comments from caregivers heard by the Clinical Nurse Manager of the unit, Shelly Deyhle, included statements such as "my back doesn't hurt anymore when I go home from work" and "I finally get to enjoy my lunch break without being distracted to help pull a patient up in bed". From the patient perspective, caregivers heard comments about the comfort of automated repositioning (e.g. no pulling and tugging). Also, they were hearing comments from family members of patients about how Hercules made them feel better about the care their loved ones were receiving.

Study

These patient and caregiver comments confirmed to Ms. Deyhle that the Hercules purchase decision was a success. However, as a Magnet facility, nursing administration needed objective data to be collected and analyzed before arriving at any final conclusions. As such, an IRB study was designed, approved and started 6 months after installation of the 26 systems. In this study, the objective was to compare patient and caregiver perceptions of safety, efficiency, and satisfaction utilizing The Hercules Patient Repositioner, versus a control group of a similar care area where Hercules was not available.

For the patient's questionnaire, the IRB's Principal Investigator asked patients 14 questions as part of administrative rounding. Caregivers, including RNs and PCAs took electronic surveys that included 29 items. Questions included topics regarding the safety of repositioning techniques used, the number of caregivers required to manually boost patients, the amount of time required and the acceptable amount of time required to reposition patients and satisfaction questions regarding patient comfort, convenience, privacy, desirability and dignity. When the survey results were tabulated, almost 90 patients and over 60 caregivers had participated.

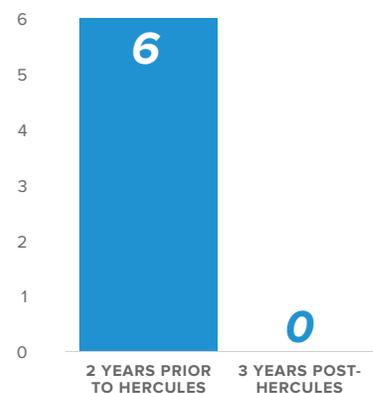
"The success of Hercules was a significant component in The Christ Hospital's Magnet submission and eventual recognition in 2015."

Julie Holt
Chief Nursing Officer,
The Christ Hospital

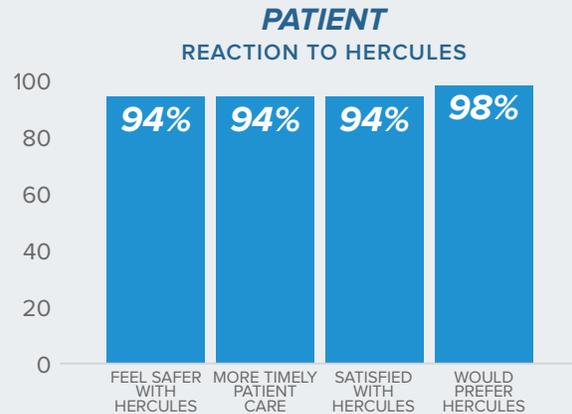
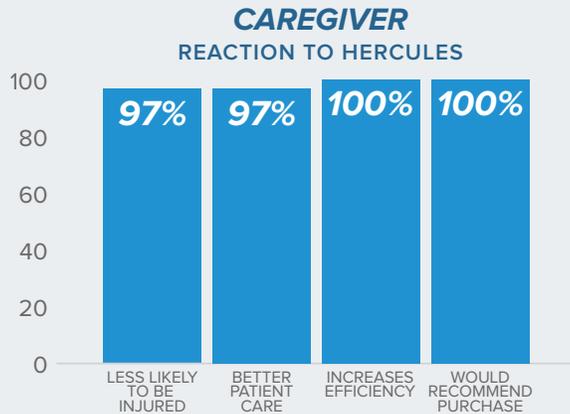


CAREGIVER INJURIES FROM REPOSITIONING

26 BED KIDNEY TRANSPLANT & RENAL UNIT



Survey Highlights



CAREGIVER FINDINGS

- 97% agree or strongly agree that they feel safer and are less likely to be injured with Hercules
- 97% agree or strongly agree that their patients are cared for in a timely manner with Hercules
- 100% agree or strongly agree they save time when repositioning with Hercules
- 100% of caregivers are very satisfied with Hercules and would recommend its purchase

PATIENT FINDINGS

- 94% feel Hercules is safer
- 94% agree or strongly agree repositioning occurs more timely with Hercules
- 94% are satisfied or very satisfied with Hercules (6% Neutral)
- 98% would recommend Hercules over traditional repositioning (such as lifts & slide sheets)

CONCLUSIONS

- Hercules is perceived as a safer and more efficient method of repositioning patients by both caregivers and patients
- Hercules is more desirable than manual boosting by both caregivers and patients
- Overall satisfaction with Hercules is extremely high for both caregivers and patients

LONG TERM OUTCOMES

(3 years post-Hercules installation)

- There have been no reported injuries associated with patient repositioning since Hercules was installed
- There have been no HAPIs reported since Hercules installation

Conclusion

Nursing administration was very pleased with the survey outcomes and felt that the results were perfectly aligned with their ANCC Magnet initiatives. Julie Holt, Chief Nursing Officer, said, “The success of Hercules was a significant component in The Christ Hospital’s Magnet submission and eventual recognition in 2015.” Results of this study were also shared with others at a podium presentation at the ANCC National Magnet Conference in October later that year.

To summarize the hospital’s experience with Hercules, Ms. Holt said, “For over 125 years, The Christ Hospital has been a leader in transforming care across the region by providing exceptional care. Implementing Hercules in strategic areas throughout our facility is a top priority as we strive to continue our mission to improve the health of our community and to create patient value by providing the best outcomes and the finest patient experiences.”

“I have never seen a product provide more value than Hercules! My nurses are more efficient, injury-free and morale has never been higher.”

**Shelly Deyhle | Clinical Nurse Manager,
The Christ Hospital**

Project Methods

The overall framework for the evidence-based research project was based on Lewin's Theory of Planned Change, which included recognition and acknowledgment that an issue existed (significant increase in HAPI incidence rate), education and communication of a new technology (The Hercules Patient Repositioner™) and the potential benefits the product could provide in increasing boosting frequency, and finally the adoption, implementation and standardization of the changed nursing practices.

The multidisciplinary leadership team of Angela Becker, Denise Darling, Kimberly Parker and Mary Kate Skinner assisted in establishing the methodology of the study and analyzed the data output at its conclusion. To begin, the team held mandatory staff training meetings to collectively educate the caregivers on the department's high HAPI incidence rate, the importance of properly scoring patients at risk and other barriers to preventing HAPIs. The team got the department staff to acknowledge and agree that current nursing practices contained significant barriers that prevented frequent and timely patient boosting and created a sense of urgency in needing to improve.

Next, the team educated all department caregivers on the benefits of frequent and timely boosting and then trained the staff to ensure boosting occurred with every patient interaction. "We told them to boost their patient every time they entered the patient's room, regardless of how little, or how far down the patient was in bed. We just wanted to offload any sustained pressure as often as possible to ensure proper circulation was occurring at the tissue level," said Becker.

At the conclusion of the 20-week study, it was evident that this initiative had been embraced by all caregivers and that they had established a nursing care practice that had become a new standard of care for their patients.

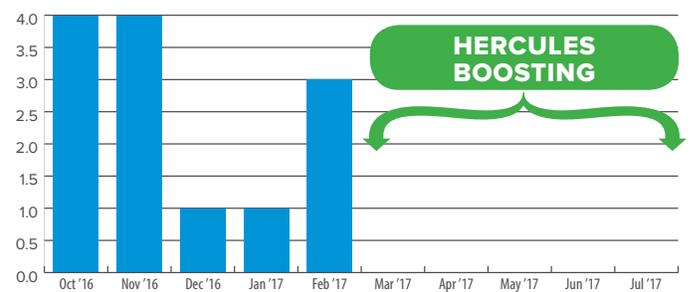
Results – HAPI INCIDENCE RATE DECREASES TO 0%

"We were very pleased with the results," cited Denise Darling. At the end of the 20-week study the research project findings showed 0 HAPIs for 5 consecutive months through July of 2017 (see chart). Extending beyond the 20-week study, the 0 HAPI incidence rate continued for two additional months while data was still being gathered and analyzed. "I strongly believe the results clearly show that this simple change in nursing practice made possible by the ease of using The Hercules Patient Repositioner™, along with the implemented changes in the patient boosting protocol, have shown that boosting a patient up in bed, even an inch or two every time a caregiver enters the room, produces positive tangible results," stated Kimberly Parker.

Additionally, given the frequency of patient interactions, Roper experienced an unexpected benefit: Braden Score accuracy in assessing a patient's skin risk was substantially improved (see chart).

Finally, Ms. Becker also commented on the many positive patient and family comments received regarding the comfort of being boosted with Hercules. She added, "I was hopeful that we were correct in our assumption that HAPIs would go down when boosting patients up in bed on a more frequent basis, but to see them basically eliminated from this simple practice change, along with the many positive patient and family responses, provides us the support, data and rationale to plan for a house-wide implementation of Hercules. And from a safety perspective, it sends a message to our team members that we care about their physical health. It's just the right thing to do!"

HAPI MONTHLY PREVALENCE



BRADEN SCORE ACCURACY

