2016 HQI VANGUARD AWARD APPLICATION

1. COVER PAGE

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Title: **HOSPITAL-ACQUIRED PRESSURE INJURIES: A NEVER EVENT REALIZED AT PROVIDENCE HOLY CROSS MEDICAL CENTER**

Topic of Focus: Patient safety

Statement of Support:

I represent the entire Leadership of Providence Holy Cross Medical Center in promoting our hospital's commitment to patient safety, quality care, and satisfactory experience. To achieve positive outcomes, we recognize the need for multifaceted approaches to patient care grounded in a strong information infrastructure. Our efforts to reduce the incidence of hospital-acquired pressure injuries among our patients – and largely make it a Never Event – is exemplary in this regard. We wholeheartedly support this application for the 2016 Vanguard Award from the Hospital Quality Institute as an exceptional way to – as one of our Nurse Managers put it – "showcase the great work at Holy Cross." – Robert P. Raggi, MD, JD, Chief Medical Officer

2. EXECUTIVE SUMMARY

In 2011, the National Quality Forum added Stage 3, 4 and unstageable hospital-acquired pressure ulcers to their list of Never Events. At Providence Holy Cross Medical Center we have successfully implemented a comprehensive strategy to reduce our incidence of hospital-acquired pressure injuries (HAPIs) and have largely made it a Never Event in our institution. Our efforts include:

- surveillance for and documentation of pre-existing wounds and early identification of any HAPIs, aided by photographs taken of the patient's sacral area at admission;
- prevention through effective care protocols and use of specialized equipment and supplies; and
- oversight by dedicated Wound Care RNs and an interprofessional Wound Care Shared Governance Council, and facility-wide data sharing.

Challenges to sustain our efforts include addressing the unmodifiable risks for pressure injuries and recognizing that patient safety improvements in another area may increase risks for HAPIs. Key to our success in realizing HAPIs as a Never Event is recognizing the vital role of our clinical nurses on the Wound Care Shared Governance Council, and not becoming discouraged when rates spike but to use that as an opportunity for learning and further improvement.

3. BACKGROUND AND RELEVANCE OF THE PROBLEM BEING ADDRESSED AND EFFORT UNDERTAKEN

In 2011, the National Quality Forum added "any stage 3, stage 4, or unstageable pressure injuries acquired after admission/presentation to a health care facility" to their list of "Never Events" – events that are considered identifiable and measureable; result in death or significant disability; and are largely preventable, and thereby should never occur. Attention to reducing or eliminating the occurrence of hospital-acquired pressure injuries (HAPIs) is not only paramount with respect to patient health and safety, but also with respect to the financial burden to our healthcare system posed by potentially high treatment costs and possible increases in length of stay. Realizing HAPIs as a Never Event is also a critical long-term focus given population aging and the clear associations between advancing age, hospitalizations and unmodifiable risks for HAPIs.

At Providence Holy Cross Medical Center (PHCMC), we have significantly improved our overall performance with respect to patient safety by implementing a comprehensive strategy to reduce the incidence of HAPIs graded as Stage 2 or greater. Our strategy includes:

- surveillance for pre-existing wounds at admission and early identification of any hospital acquired pressure injuries;
- prevention through effective care protocols and the use of specialized equipment and supplies; and
- oversight by an inter-professional organization-wide Wound Care Shared Governance Council and data sharing across the institution.

4. DESCRIBE THE EFFORT, INCLUDING THE SCOPE, PROCESS, STRATEGIES AND TACTICS UTILIZED, CHALLENGES ENCOUNTERED AND HOW THEY WERE ADDRESSED.

At PHCMC, we have in place a comprehensive program of surveillance, prevention, collaboration and data sharing to minimize the number of HAPIs graded Stage 2 or greater, both from beds and from medical devices. Although national metrics focus on Stage 3, 4 or ungradable HAPIs, we focus on patients at Stage 2 to keep a close watch on a potential threat for a higher grade HAPI.

Our surveillance efforts begin upon admission. We assess and document pre-existing wounds – a process that has evolved over time due to the implementation of and improvement in our EHR system. In addition, we take sacral photos at admission for tracking purposes (given the patient's consent), and we identify patients that are at risk of pressure injuries using the Braden scale. We also evaluate the data we collect to look for trends in things such as types of ulcers and which units have a higher rate than others so to assess whether there are any "global" changes we can make. For example, if one particular unit is found to have a consistently higher HAPI rate than others it may indicate that they need new beds.

Once admitted, our efforts to prevent HAPIs include the use of specialty beds, special sacral dressings, and formal dressing protocols. With respect to device-related pressure injuries, patients with a tracheostomy are at high risk of developing a pressure ulcer at the sternoclavicular notch due to the suturing of the phalange to both sides of the patient's skin at the base of the neck to stabilize the tubes placed within the trachea. Our success in minimizing pressure injuries at the tracheostomy site include the use of a new "special" dressing that is changed daily, and a change in protocol whereby the initial dressing is placed in the operating room by the attending surgeon rather than in the nursing unit.

These efforts are supported by 2 FTE Wound Care RNs who consult as requested and provide the staff with wound care education. In addition, our Wound Care Shared Governance Council works in conjunction with the Unit-Based Councils to address HAPIs. The PHCMC Wound Care Shared Governance Council is comprised of Wound Care RN Champions, RNs from Inpatient and Perioperative Services, certified nurse aids, dieticians, physical therapists and respiratory therapists. Council meetings focus on sharing HAPI rates; discussing the results of root cause analyses for cases that occurred; exploring trends; and investigating mitigation opportunities. A move from quarterly house-wide prevalence studies to monthly prevalence studies has also made a significant difference because, with such frequent reviews, the issue remains close at hand. The Nursing Quality Council also reviews all outcomes. Institutional support is further provided by the Chief Medical Officer and Chief Nursing Officer.

These efforts are integrated into our general operations through data sharing across entities. The foundation of our institutional data sharing efforts is our "Facilities Dashboard". On this dashboard, our core quality measures – including HAPIs – are summarized with our baseline (defined as where we were last year), current target, and current year-to-date scores. Each summary measure is highlighted in either red, yellow, or green so users to easily identify our strong points as well as, most importantly, areas of opportunity. Further detail on any measure can be easily retrieved by clicking on the measure of interest on the front page of the dashboard.

The dashboard is circulated among our senior leadership and Nurse Managers on a monthly basis in addition to its availability on our PHCMC Quality Department SharePoint on our intranet for all users to

download. With these data at their fingertips, our leadership and staff stay well informed and can effectively act and direct changes as necessary.

Our goals were not met without challenges. The unmodifiable risks for pressure injuries – such as patient behavior that precludes necessary treatment and/or prevention – will always remain a challenge. In these cases, our focus is on assuring that the case is appropriately and extensively documented. Unfortunately, these cases sometimes yield reportable conditions or can significantly impact our metrics despite being outliers.

Sometimes efforts to improve patient safety in one area impact measures in another. For example, our efforts to decrease the use of Foley catheters in order to reduce CAUTI rates poses a needed increased vigilance regarding skin care. Similarly, the change to basin-less baths may increase the need to focus on skin care. Our Wound Care RNs and Wound Care Champions are aware of these threats and postured to assure these changes do not impact our HAPI rates.

The change in protocol to address tracheostomy-related HAPIs was also met with a challenge of physician acceptance. Key to overcoming this challenge was the role of Physician Champions in being the first to adopt the change and first to reap the benefits of its success.

5. DESCRIBE THE RESULTS OF THE EFFORT

The results of the efforts detailed above are captured in the table that follows. All hospital units have significantly reduced the number of HAPIs graded at Stage 2 and above per 1,000 patient days over the 10 quarters spanning Q4 of 2013 through Q1 of 2016. In fact, virtually all units recorded no HAPIs in the five quarters between Q1, 2015 and Q1, 2016.

Independently notable is the reduction in tracheostomy associated HAPIs as a result of implementing the use of special tracheostomy dressings. In Q1, 2014, 33% of the tracheostomy tubes placed were associated with pressure injuries. By Q4, 2014 this percent had plummeted to zero and has remained there through the first quarter of 2016.

Providence Holy Cross Medical Center

HAPI Stage 2 and Above Cases/1,000 Patient Days by Unit by Quarter

Q4, 2013 - Q1, 2016

	% Q outperformed NDNQI	% Q Never Events	Q4, 2013	Q1, 2014	Q2, 2014	Q3, 2014	Q4, 2014	Q1, 2015	Q2, 2015	Q3, 2015	Q4, 2015	Q1, 2016
Med/Surg/Ortho	90%	88%	0.00	0.00	2.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Med/Surg	70%	70%	0.00	3.85	4.00	0.00	0.00	0.00	0.00	0.00	3.22	0.00
Med/Surg Overflow	100%	100%	0.00	0.00								
Oncology	100%	100%							n/a	0.00	0.00	0.00
NDNQI Average			*1.23*	*1.25*	*0.93*	*0.92*	*1.04*	*1.06*	*1.08*	*0.87*	*0.96*	*1.02*
Telemetry/Oncology	100%	100%	0.00	0.00	0.00	0.00	0.00	0.00				
Telemetry	70%	70%	0.00	0.00	0.00	5.26	5.26	0.00	0.00	5.56	0.00	0.00
NDNQI Average			*2.01*	*2.68*	*1.20*	*1.00*	*1.18*	*1.02*	*1.35*	*0.65*	*1.70*	*1.64*
Neuro Telemetry	100%	20%	0.00	0.70	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pulmonary Telemetry	100%	100%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Stepdown	100%	100%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NDNQI Average			*2.04*	*2.37*	*1.91*	*1.83*	*1.85*	*1.84*	*1.89*	*1.36*	*1.52*	*1.64*
Acute Rehab	100%	100%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NDNQI Average			*1.64*	*1.41*	*1.39*	*1.59*	*1.43*	*1.36*	*1.56*	*0.84*	*1.87*	*1.22*
ICU	80%	60%	0.00	5.71	0.00	0.52	0.00	3.13	4.55	0.00	0.00	0.00
NDNQI Average			*5.01*	*5.28*	*3.30*	*3.73*	*3.6*	*3.96*	*3.37*	*3.04*	*3.56*	*3.17*

6. DISCUSS THE SIGNIFICANCE OF THE RESULTS. HOW DO THE RESULTS DEMONSTRATE OUTSTANDING ACHEIVEMENT?

The significance of our results and how they exhibit outstanding achievement can be demonstrated by (1) comparing our rates to those provided by the National Database of Nursing Quality Indicators (NDNQI); and (2) highlighting how many quarters HAPIs have been a Never Event at PHCMC.

The NDNQI was establish by the American Nurses Association in 1998 as an effort to collect and report data to quantitatively inform the knowledge base pertaining to the association between the quality of nursing care and patient outcomes. Data is compiled from submissions made by participating health-care facilities; and summaries of these data are sent back to the participating facilities each quarter.

During the period under consideration here, PHCMC units outperformed the NDNQI national averages more than 90% of the time, and four units have outperformed the NDNQI mean in every quarter under consideration: Neuro Telemetry, Pulmonary Telemetry, Stepdown, and Acute Rehab – the latter three units having experienced HAPI cases as a Never Event over the entire period.

For tracheostomy associated pressure injuries, the significance of our results stand alone in relation to our pre-intervention rate of 33%. It is an outstanding achievement to not only significantly reduce our rate of tracheostomy associated pressure injuries but also to have crowned it as a Never Event.

7. DESCRIBE THE SUSTAINABILITY AND SCALING OF THE ACHEIVEMENTS

Our efforts with respect to assuring HAPIs remain a Never Event at PHCMC are clearly sustainable and we are dedicated to assuring they remain in place. They are not unusually resource intensive and therefore largely outside the purview of budget considerations.

PHCMC is a high volume hospital. As such, the question of scalability lies in questioning whether these efforts can be scaled downward and whether there are any notable losses in economies of scale when scaling down. Also, the key role played by our EHR system may limit the scalability of some of our efforts to facilities using paper charting.

On balance, our efforts are scalable and we are not realizing any large economies of scale. For example, dedicated wound care nurses can be scaled to a fraction of an FTE if your census does not demand full-time attention in this regard. These efforts can also be implemented without the help of an EHR system. As our EHR system has evolved, the execution of our programs has been made simpler (although the documentation efforts have become more complex) but that is not to say that we could not return to a paper based system with a few modifications, recognizing that some things would take longer.

8. DESCRIBE KEY LESSONS LEARNED AND ANY ADVICE TO COLLEAGUES WHO MIGHT TRY TO UNDERTAKE A SIMILAR EFFORT

The role of clinical nurses is of critical importance in developing an effective Wound Care Shared Governance Council. In this capacity they participate in wound prevalence data collection and wound care audits; disseminate information back to their respective units; and educate others as to the pressure ulcer prevention policies and procedures. Similarly, garnering the acceptance of physicians and surgeons in procedure and/or protocol changes is crucial. When both are integrally involved, they will serve, in concert, as champions to assure that success if achieved.

Don't be immediately discouraged when you observe a spike in rates or if your performance relative to the NDNQI averages is falling. Drill down to understand what is driving the increase in rates and evaluate the characteristics of the patient at issue. In particular, when you get closer to or reach your Never Event goal, even one case looms large in your data. Also, with respect to your rates relative to the national averages, as most hospitals are making a concerted effort to reduce their HAPI rates, the national averages will move downward and your relative position will also change unless your gains are greater than the national average (again, something that becomes particularly difficult as you approach a Never Event state).