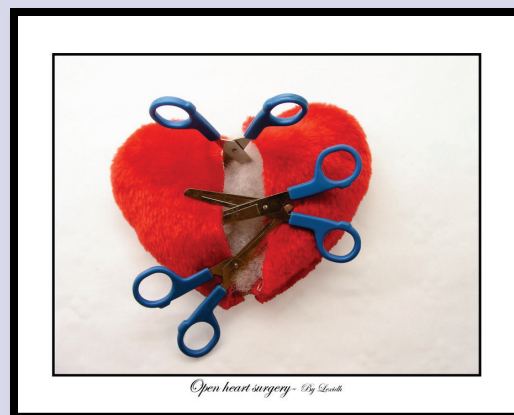




# Implementing a Skin Care Protocol on a High Risk Patient Population: The Open Heart Skin Care Protocol



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# Objectives

At the end of this presentation, the learner will be able to:

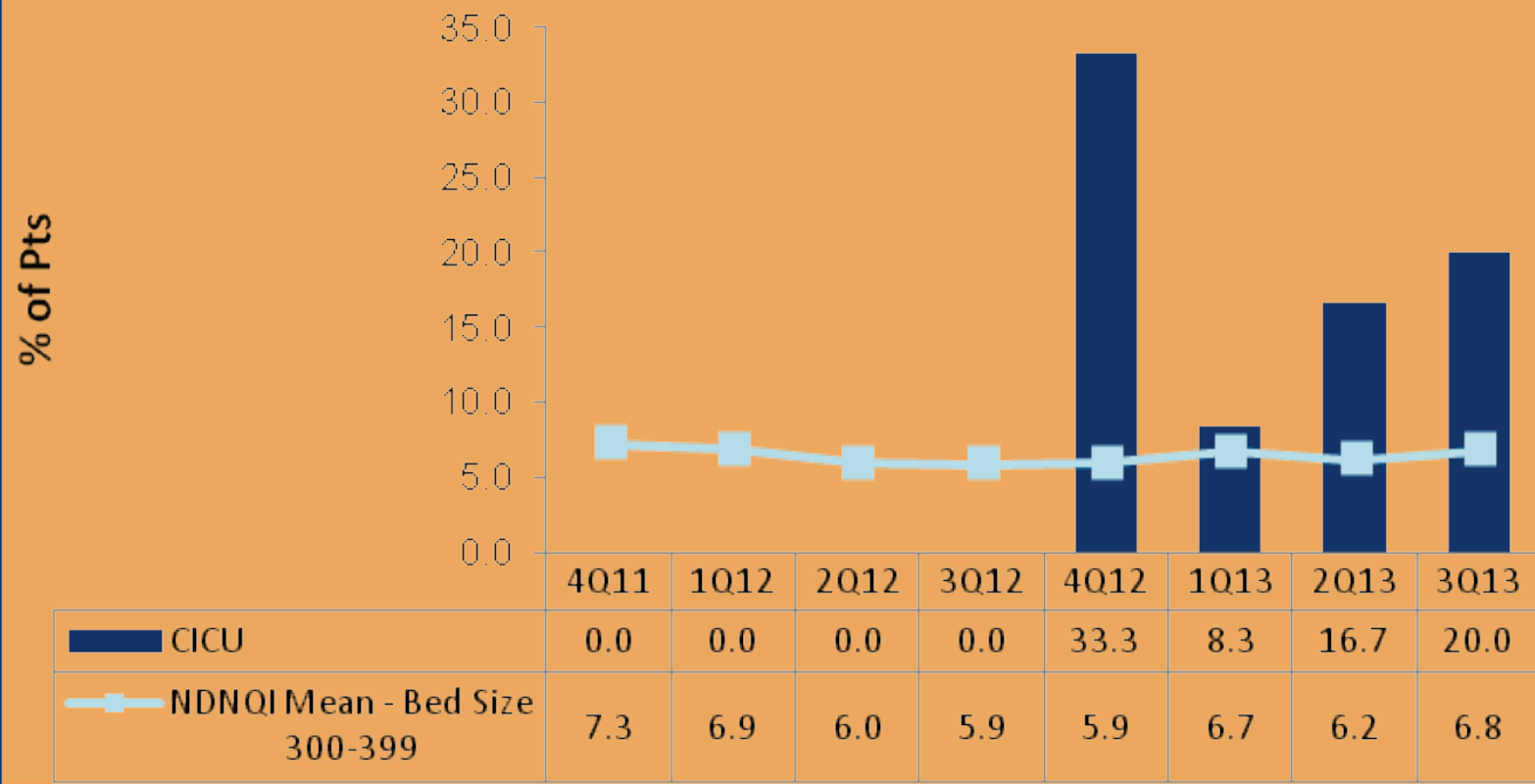
- identify the open heart surgery (OHS) patient population as high risk for developing Hospital Acquired Pressure Ulcer (HAPU).
- identify measures to reduce the incidence of HAPU in the OHS patient population.
- explain the process used to implement the Open Heart Skin Care Protocol (OHSCP).



# HAPU in CICU vs NDNQI



## % of Patients with HAPU - Critical Care CICU



4Q2012 = 1 pt with Occipital PU  
 4Q2012 = 1 pt with Coccyx PU

1Q2013 = 1 pt with Occipital PU  
 2Q2013 = 1 pt with Occipital PU  
 3Q2013 = 1 pt with unstageable DTI



# Analysis

- Close examination of the data with trend identified in the OHS patient population
- Process mapped & key stakeholders identified, including all points of entry for OHS patients: Short Stay, OR, CICU, 2G/5K - Cardiac Telemetry units, IRU/CVL
- OHSCP based on interventions targeted to root causes.
- Key: Engagement by all stakeholders, ownership by staff, support from CNE



# Products

- Sundance Z-flo positioner



- Padded oxygen tubing



- Molnlycke Mepilex sacral dressing





# Value Analysis

- Cost of HAPU
  - According to the Centers for Medicaid and Medicare Services (CMS), the estimated cost per patient is approximately \$43,000
- Cost of products
  - Z-flo = \$36
  - Mepilex sacral dressing = \$9

# Training

- Train-the-trainer approach
- Initial training by vendor representatives training unit-based Skin Care Registered Nurses (SCRN)
- SCRNs trained their colleagues.
- Collaborated with anesthesiologists, surgeons, materials management



# PPMC Open Heart Skin Care Protocol (OHSCP)

Target Population: All open heart surgery patients at Providence Portland Medical Center

Oregon Clinic: Patient Education initiated pre-op (pending)

Point of entry into  
PPMC:

Short Stay, CICU, 2G, 5K, IRU

Operating  
Room

Cardiac Intensive  
Care Unit (CICU)

2G

- Thorough skin assessment conducted and documented.
- Place sacral dressing.
- Send Z-Flow pillow with patient to OR.
- Document in Individual Plan of Care:
  - OHSCP in place
  - Z-flow pillow with pt
  - Sacral dressing applied
- Patient education flyer sent with patient as notifier to OR.
- Include initiation of protocol in handover
- Transfer patient w slider.

IRU to CVL

- Maintain sacral dressing.
- Maintain z-flow pillow.
- Float heels.
- Transfer using slider.
- Include use of protocol in handover.

- Transfer using slider.
- Maintain sacral dressing.
- Place Z-Flow pillow.
- Reposition as able.
- Float Heels as able.
- Alert anesthesia that OHSCP is in place.
- First call to CICU, include:
  - OHSCP in place.
  - Rationale for any variance to protocol.
- Document interventions & abnormal findings.

- Maintain sacral dressing.
  - Full skin assessment as able.
  - Assess sacrum and reapply sacral dressing per guidelines.
  - Maintain Z-flow pillow.
  - Assess occiput q4h.
  - Float heels & assess q4h.
  - Reposition as able.
  - Nasal cannula padding when extubated.
  - Assess ears q4h.
  - Document all abnormal findings.
  - Transfer patient w slider.
- Discontinue protocol when independently ambulatory.

- Transfer using slider.
  - Maintain sacral dressing.
  - Assess sacrum and reapply sacral dressing per guidelines.
  - Maintain Z-flow pillow.
  - Assess occiput q shift.
  - Float heels & assess q 4h.
  - Reposition q 2h.
  - Nasal cannula padding when extubated.
  - Assess ears q 4h.
  - Document all abnormal findings.
- Discontinue protocol (except O2 pads) when independently ambulatory.

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# *PPMC Cares About Your Skin!*

Sacral Dressing



Ask about the

**OPEN HEART SURGERY  
SKIN CARE PROTOCOL!**

Oxygen Tubing Padding



## ***Protective Measures:***

1. Heels elevated off bed
2. Oxygen tubing padded behind ears
3. A dressing applied to your sacrum
4. A gel-filled pillow behind your head.

Z-Flow pillow



Please remind us if any of these  
measures are missing!



- Key protocol elements:
  - Assessment
  - Interventions
  - Products
  - Positioning
  - Collaboration
- Daily Surveillance
- Support from the full team including Certified Wound, Ostomy, Continence Nurses (CWOCN)

Patient Monitoring Tool  
for Open Heart Skin Care Protocol trial

Patient label		Comments:				
Pre operative			Day1	Day 2	Day 3	Day 4
Location _____		Admission to CICU _____	Date			
Date _____		OHSCP included in OR first call				
Thorough skin assessment		Thorough skin assessment as able				
Abnl findings documented		Sacral dressing intact				
Placement of sacral dressing		Sacral dressing reapplied 3-5 days or PRN				
Z4 positioner sent to OR		Maintain Z4 positioner				
Patient education		Occipital assessment q 4 hours				
Patient education flyer w pt		Float heels				
Transfer patient with slider		Reposition as able				
Care plan documentation:		Nasal cannula padding (extubated pts)				
OHSCP in place		Ears assessed q 4 hours				
Sacral dressing applied		Documentation reflects abnl findings				
Z4 positioner with patient		OHSCP communicated shift-to-shift				
		Move patient using a slider or lift equipment				
<b>Operating Room</b>		<b>2G</b>				
Transfer pt with slider		Transfer & move using slider				
Sacral dressing maintained		Sacral dressing intact				
Z4 positioner with case in place		Sacral dressing reapplied 3-5 days or PRN				
Repositioning as able		Maintain Z4 positioner				
Float heels as able		Occipital assessment q 4 hours				
Anesthesia alerted to OHSCP		Heels floated				
First call to CICU includes:		Heel assessment q 4 hours				
OHSCP in place		Nasal cannula padding				
Rationale for variance to Protocol		Ears assessed q 4 hours				
Documentation of abnl findings		Documentation of abnormal findings				
		OHSCP communicated shift-to-shift				
		Protocol d/cd upon independent amb				
			Date discontinued:			

**Surveillance is essential!**



## 2G Patient Monitoring Tool for Open Heart Skin Care Protocol Trial

- Transfer & move using slider
- Sacral dressing intact
- Peel dressing back and assess coccyx daily
- Sacral dressing reapplied 3-5 days or PRN
- Maintain Z4 positioner
- Occipital assessment Q 4 hours
- Heels floated
- Heel assessment Q 4 hours
- Nasal cannula padding
- Ears assessed Q 4 hours
- Documentation of abnormal findings
- OHSCP communicated shift-to-shift

Day 1	Day 2	Day 3	Day 4	Day 5

**Protocol can be d/c'd upon independent ambulation.  
Nasal cannula padding should be in place until  
oxygen is discontinued.**



# Outcomes

Zero occipital pressure ulcers since institution of the OHSCP in July 2013!



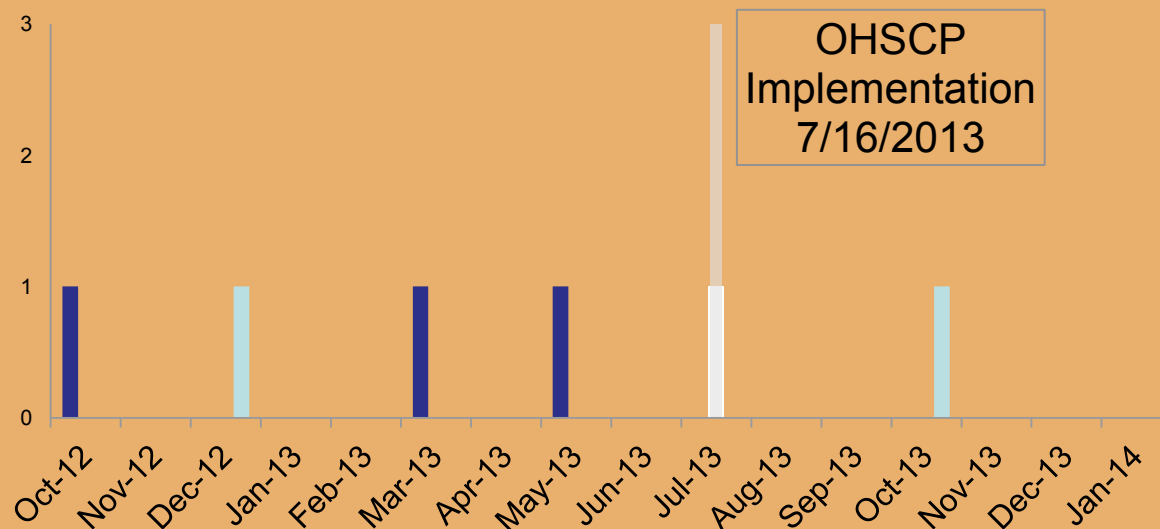


# Pre and Post OHSCP



## CICU HAPU pre and post Open Heart Skin Care Protocol

HAPU in CICU



	Oct-12	Dec-12	Jan-13	Mar-13	May-13	Jul-13	Oct-13	Jan-14
■ Occipital HAPU	1	0	0	1	1	0	0	0
■ Ear HAPU	0	0	0	0	0	1	0	0
■ Coccyx HAPU	0	1	0	0	0	0	1	0
■ OHSCP Implementation 7/16/2013						OHSCP		



# Next Steps

- Extension of the protocol to other high risk patients:
  - Ventilated >24 hours
  - Pressor support >48 hours
  - >1 trip to the OR



# Discussion



# Success!



Thank you!







# References

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