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Suspected Deep Tissue Injuries & Pressure Ulcers In the Perioperative Area

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Disclosure Information

I have no conflict of interest to disclose

Objectives

- Identify risk factors for the development of hospital acquired pressure ulcers (HAPU) and suspected Deep Tissue Injuries (sDTI) in the perioperative area
- Identify interventions for the prevention of HAPU and sDTI in perioperative patients

Acknowledgments

- UC Davis Wound Care Team
- UC Davis perioperative QI team
- Loss Prevention Grant from Med-Legal Department

Background Information

- 2.5 Million pressure ulcers patients are treated in US healthcare facilities annually
- 60,000 US hospital patients die each year from complications associated with HAPU
- In 2006, there were 322,946 reported cases of Medicare patients with a PU as a secondary diagnosis
  - Each case had an average charge of $40,381
  - Annual total cost of $13 billion

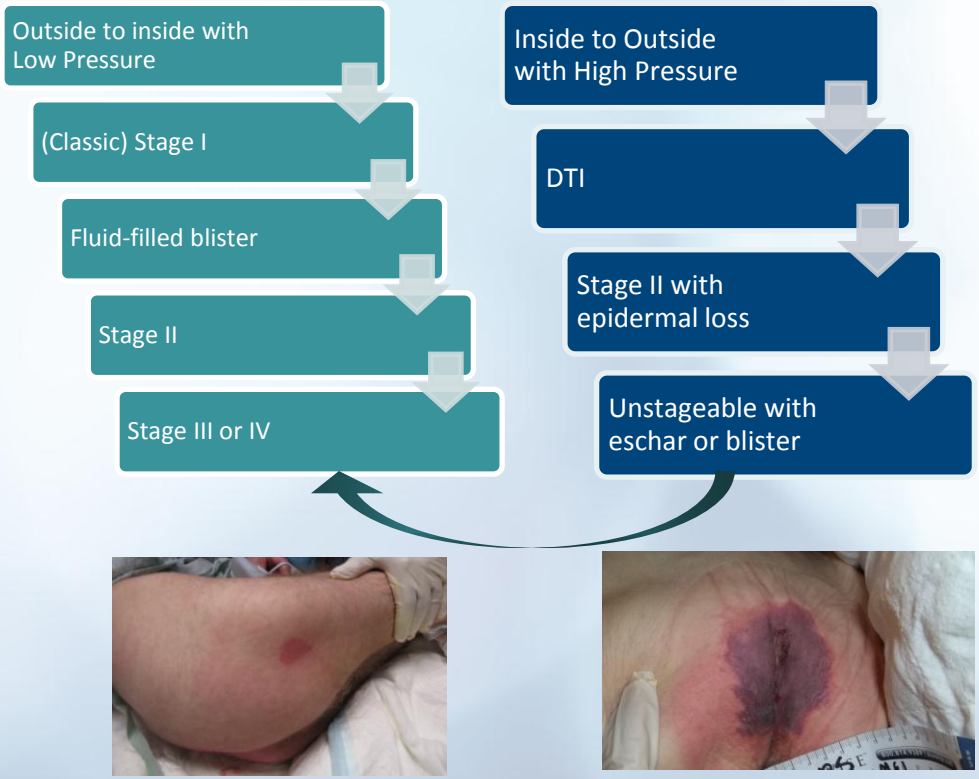
Background Information

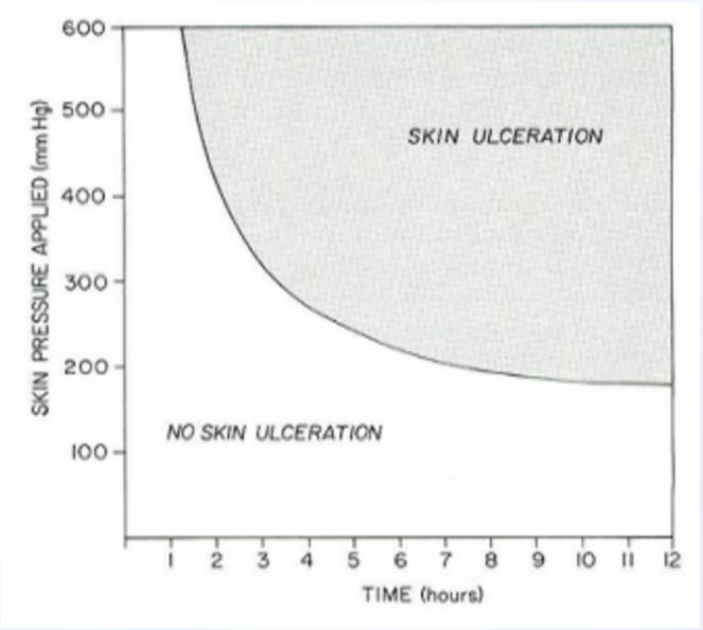
Skin Integrity National Database for Nursing Quality Indicators (NDNQI) data:

- 62% of HAPU surgical patients
- 81% of patients on vasopressors during hospitalization develop HAPU
- 29% HAPU developed within 48 hours
- 60% HAPU developed within 9 days

Background information

- Traditional PUs vs suspected deep tissue injuries (sDTI)

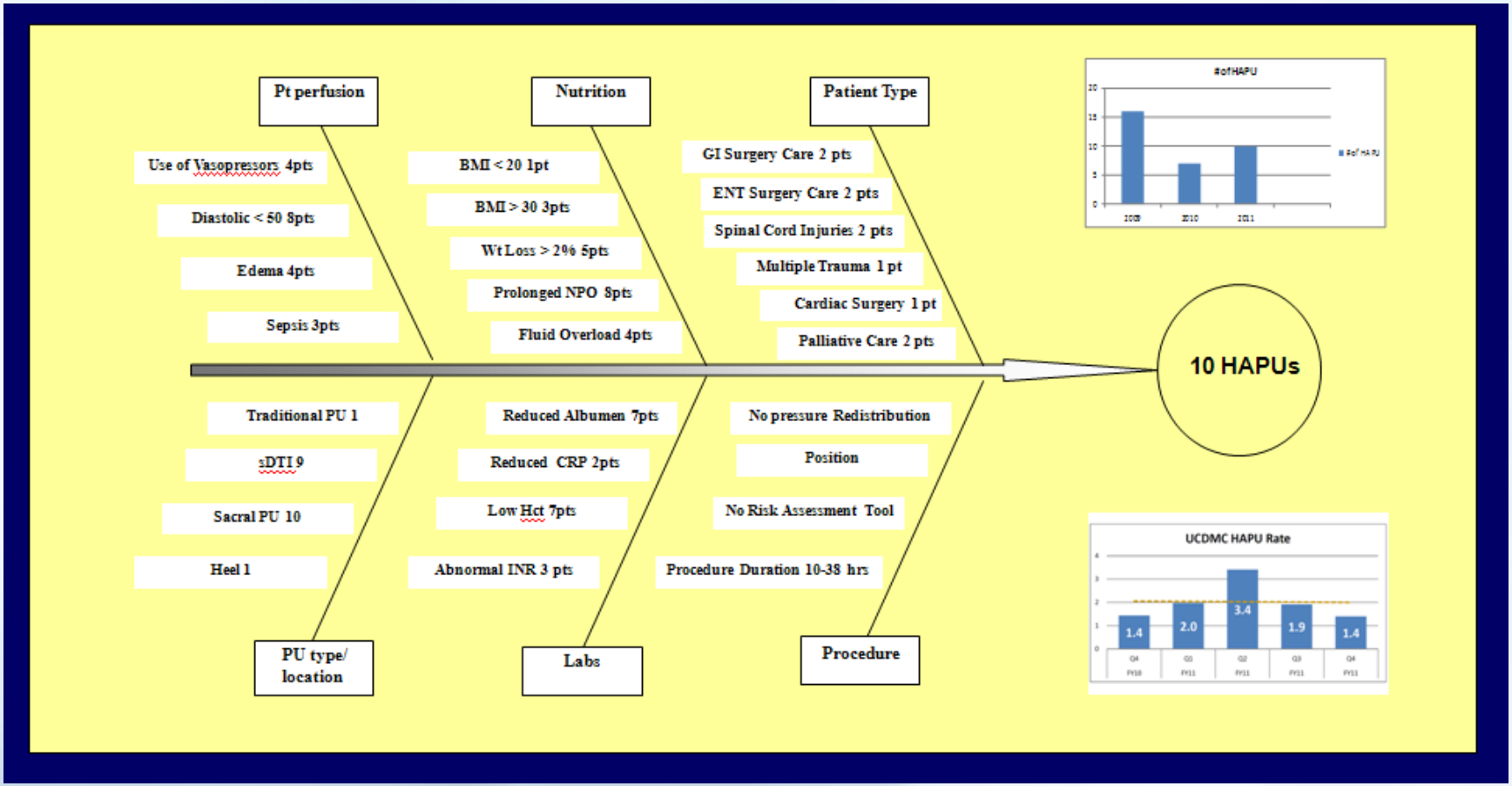




Problem

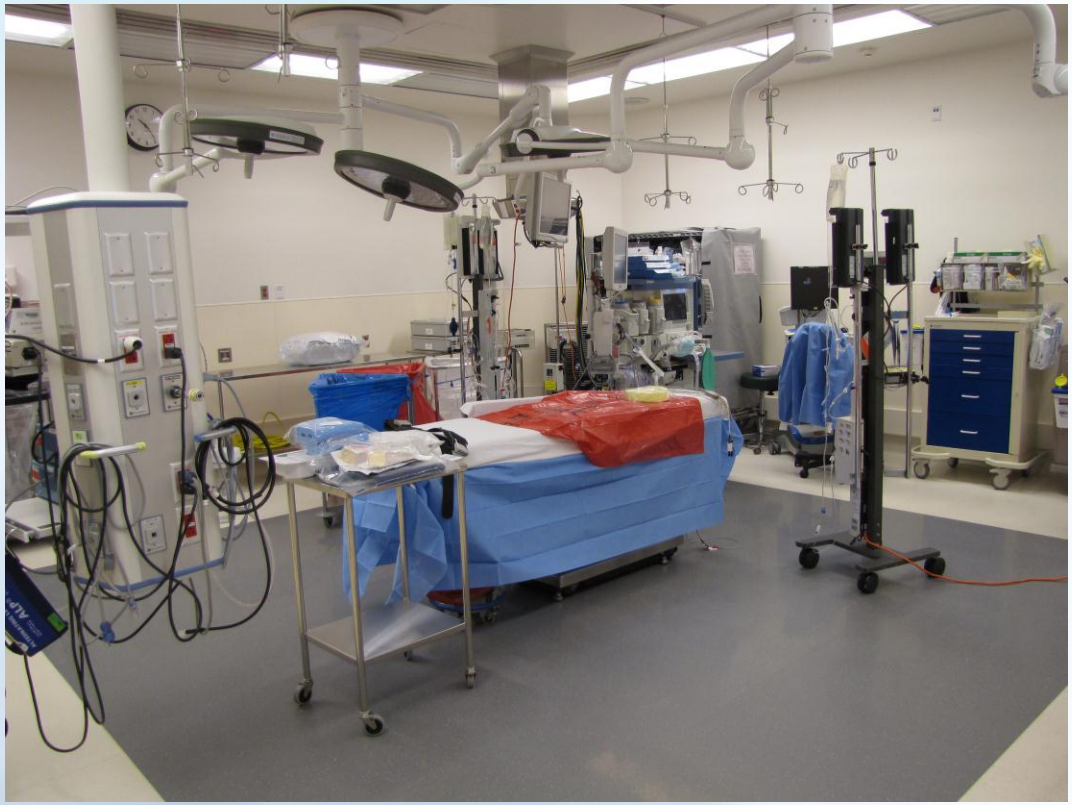
- A root cause analysis of HAPUs for 2011 revealed:
  - 90% HAPUs started as sDTI
  - All surgical patients
  - Prolonged operative procedure lasted from 10 hours for a single case to 38 hours over two week period
  - All sDTI progressed to Stage III or IV pressure ulcers

Root cause analysis



Purpose of The Project

To reduce HAPUs in the Perioperative Area



Previous Practice

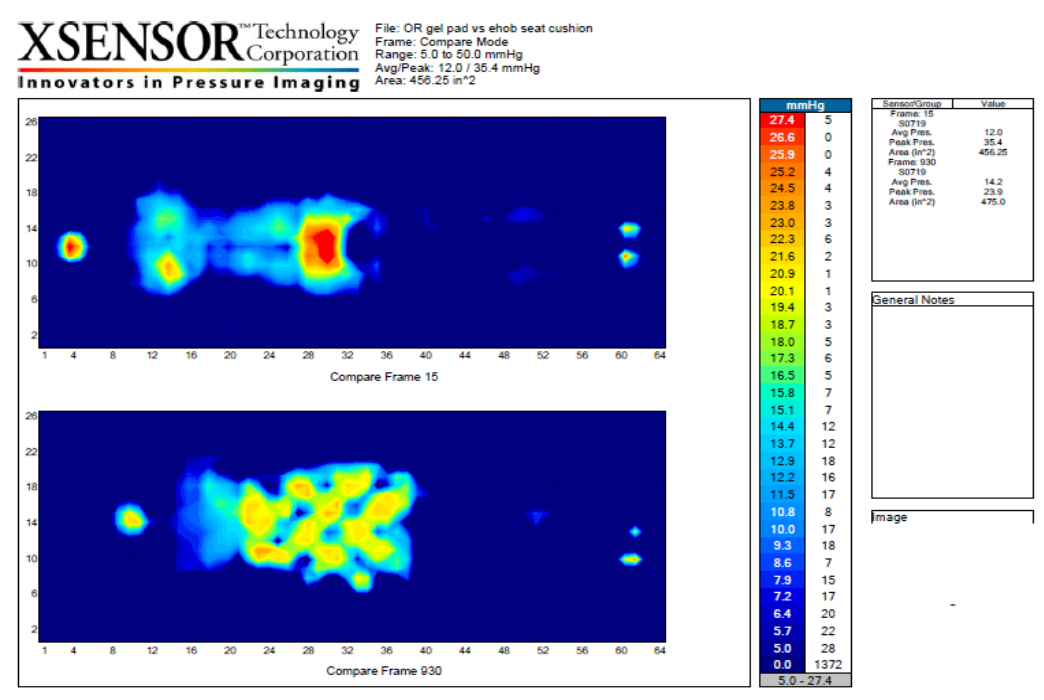
- The use of a gel mattress and donut pillows
- No risk assessment or interventions were used for HAPU prevention

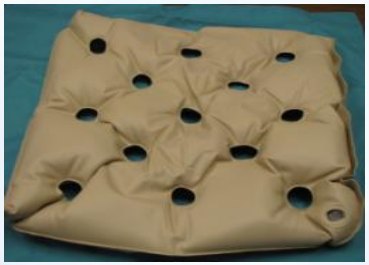
Interventions

- Root cause analysis results shared
- An informational power point and suggested interventions were presented
- Each incident was documented with photos and patient's history
- A grid was completed to find out all shared risk factors

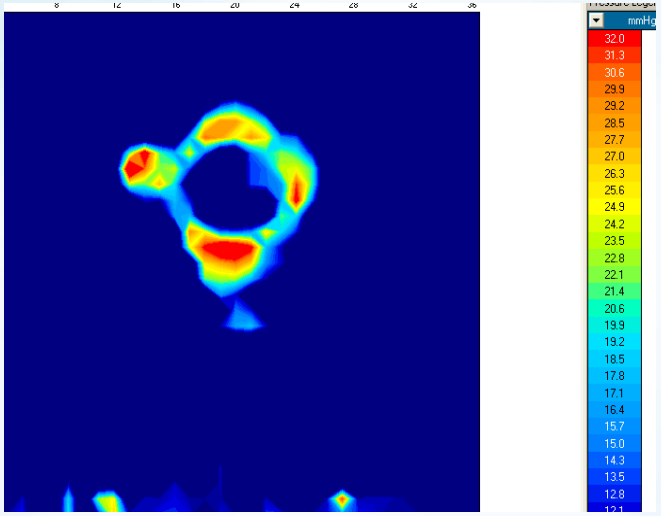
Interventions (continued)

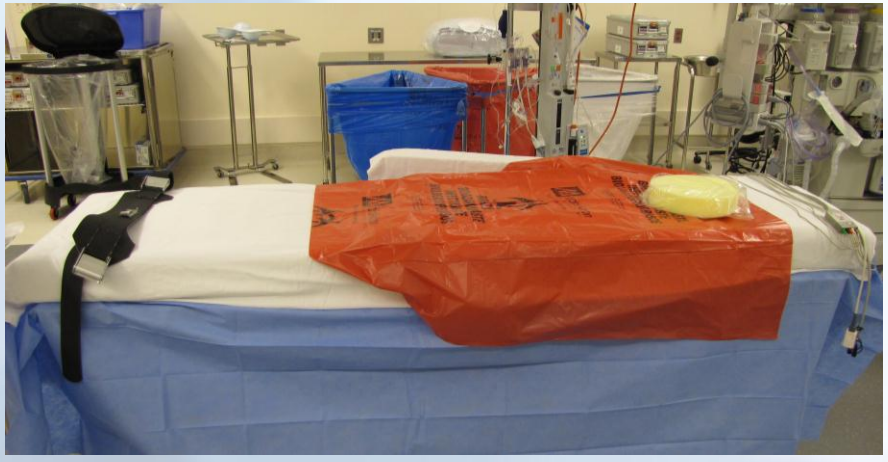
- All operative tables and surfaces were pressure mapped
- Interventions were reviewed and tested





Interventions (continued)





Interventions (continued)

- Standardize perioperative documentation
- Identified a need for a Skin Risk Assessment Tool for surgical patients (Munro is not tested for validity/reliability)
- Develop a guide to identify patients at risk

High Risk Inclusion Criteria:

Apply Mepilex® Border Sacrum if patient meets any of the following criteria:

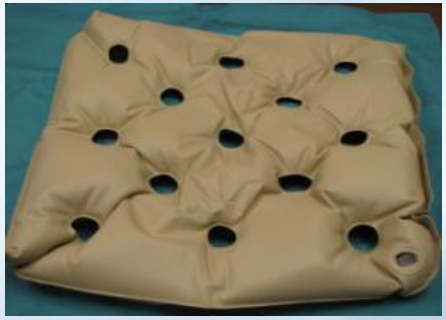
- Recent cardiac arrest
- Vasopressor Medications for 48 hrs
- SHOCK (septic, hypovolemic, cardiogenic, trauma patients, spine surgery, cardiac surgery, ICU patients)
- Past history of sacral/coccygeal pressure ulcer(s) (check for scarring)
- Current redness in sacral/coccygeal area
- Anticipated operative procedure or multiple procedures lasting more than 6 hours
- Quadriplegic, paraplegic, or hemiplegic
- Stroke, Paralysis

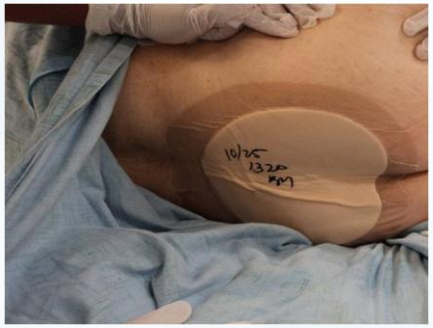
Apply Mepilex® Border Sacrum if patient meets 3 or more of the following criteria:

- BMI above 30 or below 20
- Weeping edema or anasarca
- Age 70 or older
- Diabetes
- Liver failure
- Renal failure
- Weight Loss of 5% in past two weeks (i.e. for 300 lb patient, 30lbs is 10% and 15lbs is 5%)
- Fecal or urinary incontinence not controlled by Fecal Management System or Foley Cath
- Prolonged bed rest longer than 4 hours AND patient unable to shift weight independently

Interventions (continued)

- Pressure redistribution cushions are used for each patient who has risk factors
- Silicone foam dressings are applied to the sacral area of each high-risk patient to prevent friction and shear





- Continue to search for proper OR table pressure redistribution surface

Results

- A better understanding of the etiology, prevention and documentation of sDTI/HAPUs was acquired by OR nurses and physicians
- Assessment, documentation and interventions for sDTI/HAPU prevention are now in use in the perioperative area
- The perioperative QI nurses and wound care team continue to meet monthly to review progress

Plans

- Pressure mapping study of three different pressure redistribution OR surfaces
- In collaboration with UC Davis Betty Irene Moore School of Nursing develop and test a Skin Risk Assessment Tool for perioperative patients

Summary

Although culture change is slow in a closed environment like the perioperative area, through collaboration and education a positive change is possible

Questions?

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