

# Skin Injury Prevention Strategies

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## CentraCare – St. Cloud Hospital

- Level II Trauma Center, staffed 24/7
- Average of 1400 surgeries/month
- Average of 16,000 surgeries/year
- Surgeries include everything except:
  - Peds Trauma, transplants, and burns

### Reporting process

- Variance Reporting
- RCA/SME Process

## MDH – Reportable Health Events

### **Surgical Events**

- Surgery performed on wrong body part that is not consistent with informed consent.
- Surgery performed on the wrong patient.
- Retention of a foreign object in patient after surgery.
- Death during or immediately after surgery of a normal, healthy patient.

### **Care Management**

- Irretrievable loss of an irreplaceable specimen.
- Stage 3, 4 or unstageable ulcers acquired after admission to a facility.

## Hospital Acquired Pressure Injury (HAPI) Prevalence

What are the risk factors associated with HAPIs?

- Friction, pressure, shear, moisture
- Poor nutrition, poor fluid balance
- Sedation/Anesthesia

How many patients are affected?

- 14% of all inpatients experience HAPIs (39.3% of ICU patients)
- 2.5 million patients per year in the United States

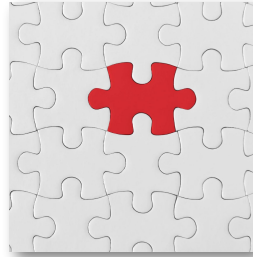
How much does it cost?

- \$10,700 per patient

## Best Practices

### Fundamentals:

- Risk Assessment and interventions
- Support Surfaces
- Repositioning (all phases if applicable)
- Communication/Teamwork
- Documentation
- Education for staff



What pieces to the puzzle is your department

## Risk Assessment



WHAT IS THE SCOTT TRIGGERS TOOL?



WHAT ARE THE PATIENT CRITERIA?

## Perioperative Specific

### Scott Triggers

**Patient is at High Risk for Developing Pressure Ulcer**

ASA Score 3 or Greater  
Surgery Time Over 3 Hours (180 Minutes)?  
Scott Triggers Score  
Pre-Op Interventions

## Interventions

Pre-Op Interventions	<input type="checkbox"/> Pre-op skin assessment <input type="checkbox"/> Pre-op warming <input type="checkbox"/> Hovermat for safe patient handling <input type="checkbox"/> Designated bouffant <input type="checkbox"/> Preventative dressing <input type="checkbox"/> Skin folds clean and dry <input type="checkbox"/> Hand-off
Intra-Op Interventions	<input type="checkbox"/> Linens clean, dry and wrinkle free <input type="checkbox"/> Decrease layers under patient <input type="checkbox"/> Moisture wicking pads in place <input type="checkbox"/> Specialty mattress/gel/foam <input type="checkbox"/> Free float heels <input type="checkbox"/> Pad bony prominences <input type="checkbox"/> ROM/Micro shifts <input type="checkbox"/> Intra-op warming <input type="checkbox"/> Hand-off <input type="checkbox"/> Preventative dressing
Post-Op Interventions	<input type="checkbox"/> Early movement/repositioning post-op <input type="checkbox"/> Use pillows or wedges to redistribute pressure <input type="checkbox"/> Early skin assessment in post-op <input type="checkbox"/> Hand off

Exam



Special Co



Let's take the  pressure off!

- Policy changes for intraoperative positioning
- ROM to microshifting
- 2-hour alert (BPA)
- Documentation changes

Pressure Injury Prevention			
Lower Body	<input type="checkbox"/> Pressure Points Checked	<input type="checkbox"/> Pressure Points Padded	<input type="checkbox"/> ROM <input type="checkbox"/> Micro Shift
	<input type="checkbox"/> See Anesthesia Record	<input type="checkbox"/> Unable (see comment)	
Upper Body	<input type="checkbox"/> Pressure Points Checked	<input type="checkbox"/> Pressure Points Padded	<input type="checkbox"/> ROM <input type="checkbox"/> Micro Shift
	<input type="checkbox"/> See Anesthesia Record	<input type="checkbox"/> Unable (see comment)	
Head	<input type="checkbox"/> Pressure Points Checked	<input type="checkbox"/> Pressure Points Padded	<input type="checkbox"/> ROM <input type="checkbox"/> Micro Shift
	<input type="checkbox"/> See Anesthesia Record	<input type="checkbox"/> Unable (see comment)	



## Brooke's Story

New Nurse

Precepting

Vascular patient

- Diabetic
- Poor wound healing
- Many co-morbidities to increase risk of pressure injury!

Hemodynamically unstable

Unsure if case would go

Case time was set for 3 hours (no flags)

-Case went for 12 hours

Patient returned to OR later that night.

-On-Call

-Patient coming from ICU- Intubated, restrained, etc.

-Case went for 6 additional hours

Why does any of this matter?

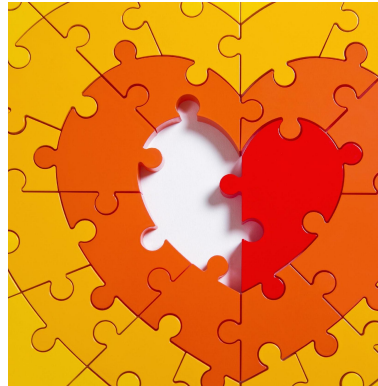
-Barriers to care!

-What is in the forefront? Was it skin?

# RCA Reflections

(Root Cause Analysis)

- Open to suggestions.
- Missing a piece to a puzzle that wasn't on the table. Skin was NOT on my radar!
- How can we set our nursing staff up for success?



## Action Plan

How can we make HAPI prevention an automatic for staff, even when there are many barriers to care?

*Practice Change at our facility: All cases over 3-hours get preventative dressing*

Presented at Surgery Education Days

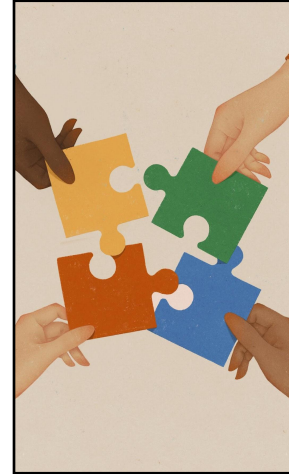
### Personal practices

- Foley Catheter = Pressure Dressing
- Part of Hand-Off Report
- Customize your charting (Scott Triggers Placement)
- Team change: Bin of dressings on top of vascular cart

### You know your surgeon!

*"If it might run long, put one on"*

As circulators, this is one of our biggest strengths!



## Meet Stanley

- 70-year-old male
- BMI 22
- Came to ER with NSTEMI, initial angiogram completed that day.
- Two days later underwent CABG x3.
  - 7-hour procedure.
  - Mepilex was in place.
- Complications included cardiogenic shock, ileus, and multiple days on vasopressors in ICU.
- 4 days post op CABG, noted reddened coccyx.
- Unstageable on POD 12.



## Lessons Learned

### Surgery

- Long Case (contributing factor)
- No charting on repositioning/micro shifting

### Floor

- Inadequate repositioning
- Nutrition screening missed
- No preventative dressings placed

### Things we Can't Control

- Length, Type, Position of surgery
- Medications (vasopressors)
- Patient refusal

## Action Plans

### Surgery

- Skin Education
  - *Documentation of interventions (Scott Triggers)*
- Gel pad vs. foam padding vs. new mattresses

### Floor

- Education
- Tip sheets for new hires on skin/repo
- Nutrition BPA

## Meet Tony



- Male in his 40s
- BMI = 46.7
- Surgery: Exploratory lap for small bowel obstruction with necrotic bowel. Inguinal hernia repair with mesh.
- 4 Liters irrigation to abdominal cavity. JPx2, NG, foley. To ICU for pressors.
- Intubated x3 days
- WOC consulted POD 1 for skin fold erythema.
- POD 3 - extubated. Encephalopathy post extubation.
- POD 6 – new coccygeal hospital acquired deep tissue injury.
- POD 18 - Unstageable ulcer.

## Meet Linda

- Female in her 70s
- Multiple comorbidities.
- Surgical Procedure: AAA repair with multiple stenting and angioplasty.
  - 7-hour procedure.
- WOC involved 3 days post op. Deep tissue injury – hospital acquired.



## Lessons Learned and Action Plans

### Lessons Learned:

- Pressure injury screening did not occur.
- Preventative dressing not in place.

▼ Scott Triggers

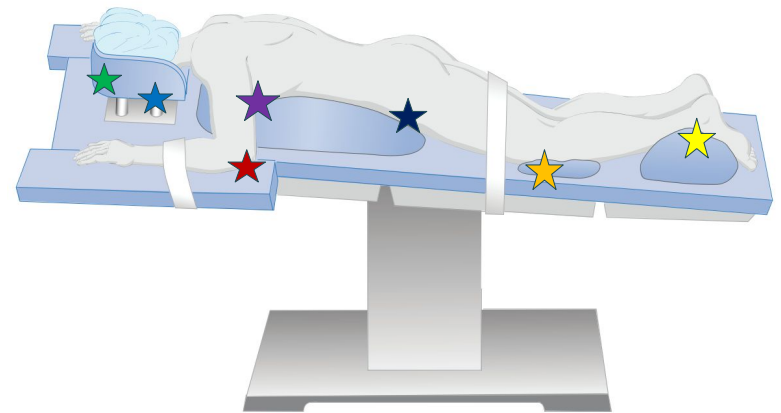
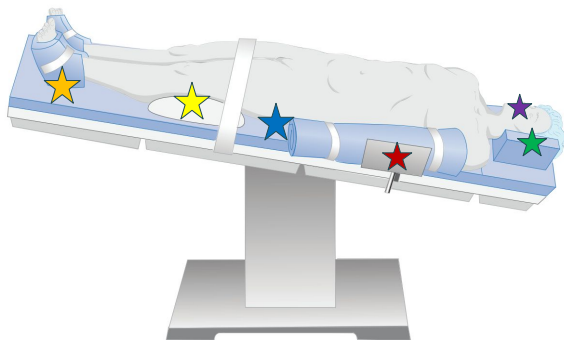
Age 62 or Older?	▼	1=Yes	0=No
BMI <19 or >40?	▼	1=Yes	0=No
ASA Score 3 or Greater?	▼	1=Yes	0=No
Surgery Time Over 3 Hours (180 Minutes)?	▼	1=Yes	0=No
<b>Consider Preventative Dressing</b>			
Scott Triggers Score			
<b>Patient is at High Risk for Developing Pressure Ulcer</b>			

### Action Plans:

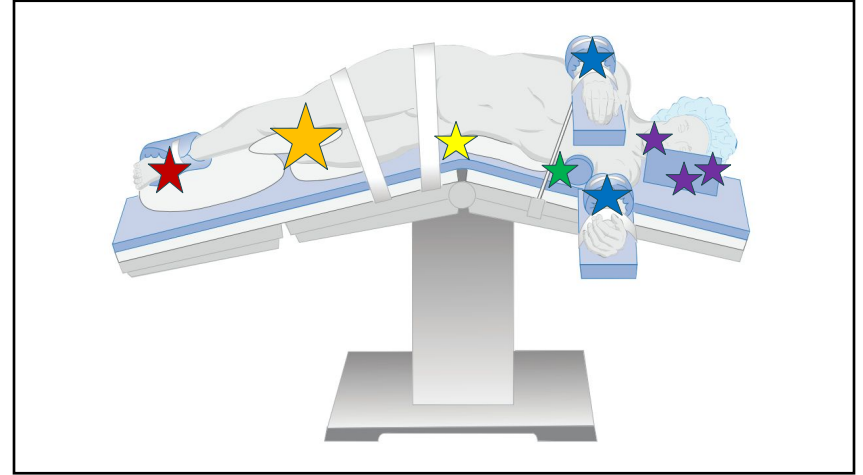
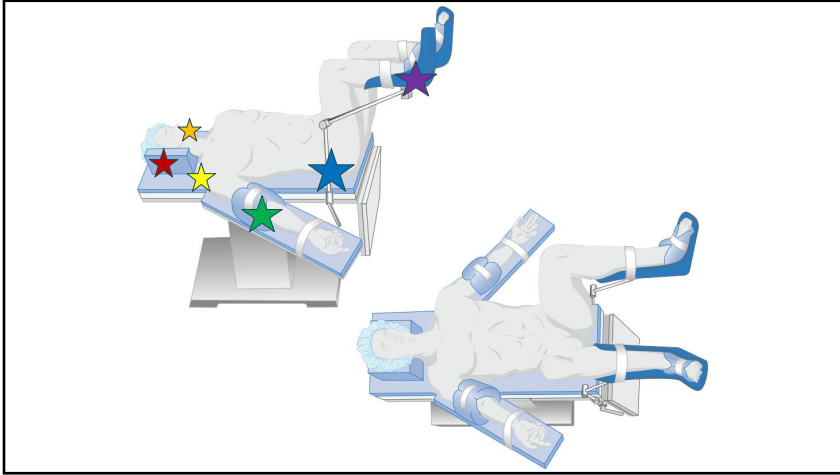
- Education
- EMR Enhancements
  - Yellow Banner
  - Positioning transferring to inpatient units
- Pressure reduction methods
  - Mattress inspections vs. new mattresses
- Skin audits/Skin Champions

## Positioning Pressure Points Activity

Do you know which pressure points your patients are at risk for related to the position they are in?







 An illustration showing several hands of different skin tones placing white puzzle pieces into a larger puzzle on a wooden table. The puzzle is partially completed, with some pieces already in place.
 

### The Missing Pieces to the Puzzle

- Risk assessments
- Support Surfaces
- Interventions based on risk
- Prophylactic Dressings
- Documentation
- Handoff

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## Let's Connect!

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