MISSION HOSPITAL

INTRODUCTION

- Hospital acquired pressure ulcers (HAPU) continue to pose a significant health problem in the US, affecting up to 3 million adults in acute care facilities at a cost of up to \$11 billion, annually.
- Surgical patients are thought to be at elevated risk for pressure ulcer development due to a combination of physiological, non-physiological, and surgical/anesthesia related factors; however, a preoperative Braden Score may not accurately reflect postoperative risk.
- The Scott TriggersTM scale shows great potential as a preoperative predictor of postoperative pressure ulcer development (PPUD), but has not been tested for accuracy and precision.

Selected Demographics		
	n	
Male	3082	
Female	3902	
Native American	86	
African American	252	
Latino	72	
Caucasian	4906	
Unspecified	1668	
Median Age (IQR)	60 (40 – 73) years	
Median Surgery room time (IQR)	85 (47 – 137) minutes	
ASA Score < 3	1960	
ASA Score \geq 3	5024	
Pressure Ulcers	116	

•

 Change in Braden Score from Preoperative to Postoperative • Represents a clinically significant increase in pressure injury risk

<i>n</i> = 6984	Preoperative	Postoperative	Change	p-
Median Braden Score (IQR)	19 (4)	18 (5)	0 (2)	<(
Mean Braden Score (SD)	19 (3)	18 (3)	-1 (3)	

Exploration of the Accuracy and Precision of the Scott Triggers™ Instrument in Predicting Postoperative Pressure Ulcer Development

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RESEARCH QUESTION

- Is there a change in pressure ulcer risk that occurs in the operating room?
- Is there a relationship between the preoperative risk factors in the Scott Triggers[™] tool and postoperative pressure ulcer development?

PURPOSE

• The purpose of this retrospective, exploratory study was to investigate the accuracy and precision of the Scott Triggers[™] instrument in predicting postoperative pressure ulcer development in a large, heterogenous surgical patient population.

SCOTT TRIGGERS™

- Age >62
- Albumin < 3.5
- ASA Score ≥3
- Time on the table ≥ 3 hr

	n = 6984	%
Age ≥ 62	3363	48.2%
ASA ≥ 2	5024	71.9%
Surgery time > 180 minutes	1181	16.9%

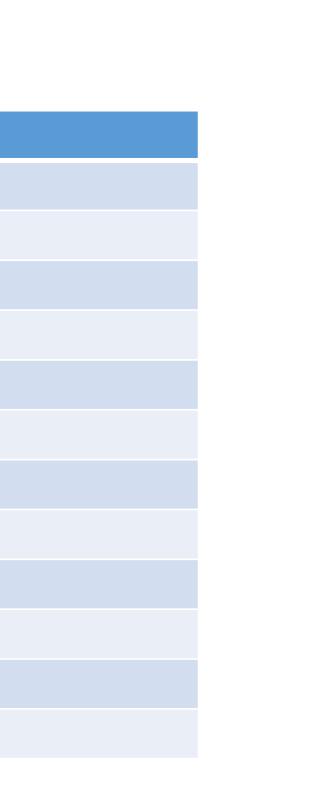
Patients receive 1 point for each trigger. A score of ≥ 2 is at high risk for pressure injury.

Linear Regression for a change in Braden Score (+ means increase in score / - means decrease in score)

	Multivariate Analysis (95% CI)	p - value		
Age, 10 year increments	-0.1 (-0.10.1)	< 0.01		
ASA < 3	Reference			
$ASA \ge 3$	-0.6 (-0.70.5)	< 0.01		
Time in the OR, 10 minute increments	-0.1 (-0.10.1)	< 0.01		
Serum Albumin	Not routinely ordered			

Cardiovascular surgery patient 48 hours after surgery. Note characteristic butterfly shape.





-value < 0.01

METHOD

- Retrospective exploratory design
- Purposive, convenience sample
- and postoperative Braden Scores

COMPARISON

How well does the Scott Triggers[™] Score compare to the postoperative Braden Score? • n = 6984 for correlation analysis

- r = 0.64887
- p = < 0.0001

CONCLUSIONS

- and postoperative Braden Score.
- tool predicts pressure ulcer development

ACKNOWLEGMENT

Special thanks to Suzy Scott MSN, RN, WOC Nurse. Her work in the field of perioperative pressure risk has been an inspiration.

Special thanks to our statistician, Sheri Denslow PhD, MPH.

SELECTED REFERENCES

- Cambridge Media.



• Electronic medical record abstraction of 15,500 adult inpatient stay • Study group – 6984 records had both preoperative

• The significant change in Braden Score from the preoperative measurement to the postoperative measurement suggests that going to surgery increases pressure ulcer risk • There is a moderate correlation between Scott Triggers™

• Because there was insufficient Albumin data, we were only able to measure 3 of the 4 Scott Triggers[™]. The three triggers that we measured seem to be implicated in the risk for surgical pressure injury development. • Because the incidence of pressure ulcer development was so

small, our data does not support that the Scott Triggers™

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