Quality and Safety Driving Evidence-Based Improvement in Perioperative Nursing

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Einstein HEALTHCARE NETWORK

Watson Caring Science Institute

Problem

Background

- Hospital Acquired Pressure Injury (HAPI) increasing. Several Einstein inpatient units implemented changes to address HAPI
- Nurses from the surgical cluster, representing preoperative, intraoperative, and postoperative care recognized the opportunity for improvement and joined the effort.
- We initiated a literature review and found that surgical patients are at increased risk because of positioning, duration of surgical procedure, pressure, shearing and moisture in the operating room (OR).
- It was determined that there was a need for assessment and increased attention to risk for pressure injury development in the perioperative setting.

Methods

- Munro Pressure Ulcer Risk Assessment Scale(MPURAS) initiated on patients having a surgical procedure expected to be greater than 2 hours.

Measurement

- Measurement strategies for evaluation include comparing data related to HAPIs in surgical patients for a 3 month period prior to the implementation of the practice change and monthly for 9 months post implementation.
- Data also collected on the utilization of the risk assessment form.

PICOT

P *Patients having a surgical procedure ≥ 2 hours*

I *Munro Pressure Ulcer Risk Assessment Scale*

C *versus no MPURAS*

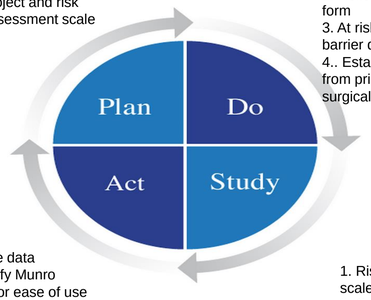
O *Decreased incidence of HAPI*

T *During hospitalization*

PDSA Cycle

1. Approval for project
2. Education on project and risk assessment scale

1. Interdisciplinary education
2. Rollout of assessment form
3. At risk patients receive barrier dressing
4.. Establish baseline data from prior 3 months for surgical patients with HAPI



1.Share data
2. Modify Munro Scale for ease of use
3. Staff meetings to identify barriers
4. Sought champions

1. Risk assessment scale usage by staff
2. Collect data for HAPI in surgical patients monthly

Modified Munro Scale

Preoperative Assessment	**BMI**	**1**	**2**	**3**	
		< 30	30 - 35	> 35	
	Weight Loss	**1**	**2**	**3**	
	Weight loss in 30-180 days	Up to 7.4% weight loss, no change or unknown	Between 7.5% to 9.9% weight loss	≥10% weight loss	
	Age	**1**	**2**	**3**	
	Years	39 or less	40-59	60 or greater	
	Co-morbidity	Each co-morbidity/grouping equals a score of 1.			
		A minimum score of 0 and maximum score of 6 is possible.			
		Smoking [current]			
		Prehypertension or high BP levels [BP> 120/80]			
		Vascular/Renal/Cardio-vascular/Peripheral-vascular Disease			
		Asthma/Pulmonary/Respiratory Disease			
		Prior History of Pressure Ulcer/Existing Pressure Ulcer			
		Diabetes/IDDM			
				Preoperative Munro Score Total:	
	5-6 = Low Risk	7-14 = Moderate Risk	15 or greater - High Risk	Level of Risk:	
	Munro Score level of risk communicated to:				
	RN Signature:			**Date:**	

(PLACE PATIENT STICKER HERE)

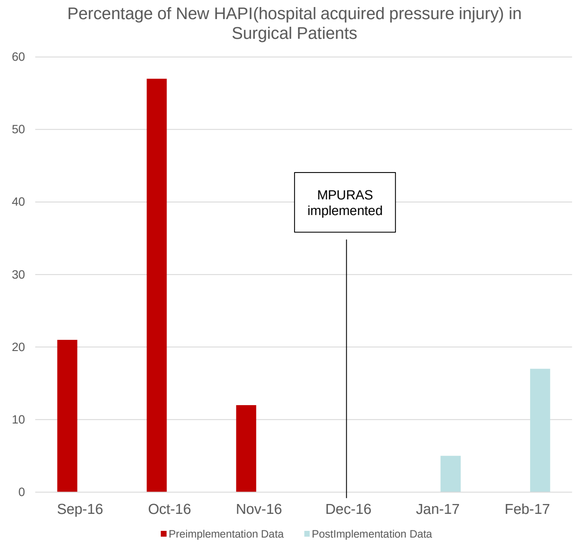
Postoperative Assessment		**Postoperative Risk Factor Score**		
	Length of perioperative duration	**1**	**2**	**3**
	Total time from arrival to preoperative and departure from postoperative units	Up to 2 hrs	> 2 but < 4 hrs	> 4 hrs
	Blood loss	**1**	**2**	**3**
	Intraop plus PACU sanguinous fluid via wound, orifice &/or drain as per LIP	Up to 200cc	201-400cc	> 400cc
				Postoperative Score Subtotal:
				Add **Intraoperative** Munro Score Total:
				Postoperative Cumulative Munro Score Total:
	15 = Low Risk	16-28 = Moderate Risk	29 or greater = High Risk	**Level of Risk:**
	Final cumulative Munro Score level of risk communicated to:			
	RN Signature:		**Date:**	**Time:**

Outcome

- **HAPIs in surgical patients decreased in first month.**
- **Discussions about skin are becoming more routine.**
- **Increased interest in evidenced based practice and QI activities.**

Opportunities for Improvement

- **Forms initiated in pre-op do not always make it to PACU**
- **Incomplete forms**
- **Staff engagement**



Lessons Learned

- Change is hard
- Leadership support is vital for success
- Relationships are important – tap into them
- Find ways to engage direct care people that are reluctant to change
- Cannot be deterred by barriers
- Be glad for short gains- staff are thinking about HAPIs
- Joy in this work

Summary

Direct care nurses drive patient safety because they are in a position to see where small changes in practice can result in large-scale improvement. *Utilizing a risk assessment scale*, *increasing awareness and initiating preventative measures* are ways to accomplish our goal of decreasing HAPIs in patients having a surgical procedure.

Acknowledgement: We would like to thank Karen Schwartz BSN, RN, CNOR, Rob Levin MSN,RN,CNOR,RRT and Nancy Pokorny MSN, MHA, RN for supporting our work.

Bibliography

1. Chen, H., et al. The incidence of pressure ulcers in surgical patients of the last 5 years: a systematic review. Wounds. 2012;24(9):234-241.
2. Cherry, C., and Moss, J., Best practices for preventing hospital-acquired pressure injuries in surgical patients. CORNJ. 2011;29(1):6-26.
3. Engels, D., et al. Pressure Ulcers: factors contributing to their development in the or. AORN journal. 2016;103(3):271-281.
4. Munro, C., A collaborative approach to pressure ulcer prevention. powerpoint.