

Purpose

The purpose of this project was to develop a specific communication tool to report skin integrity risk factors for the pediatric perioperative patient.

Background

Literature Review:

❖ In 2011, 18 to 27 % of hospitalized critically ill infants and children had a hospital-acquired pressure ulcer.

❖ Pressure ulcers develop in 5.6% of all surgical patients.

❖ The average cost of a full thickness pressure ulcer is 70,000 dollars per patient per annum in the United States (US). This amounts to a total estimated cost nationally of 11 billion dollars per year.

❖ On October 1, 2008 the Centers for Medicare and Medicaid Services (CMS) announced that U.S. healthcare facilities would no longer be reimbursed for eight different "reasonably preventable" conditions. One of which were stage 3 or 4 hospital-acquired pressure ulcers.

Braden Q:

❖ The Braden Q scale is a tool used to assess and identify possible risk of skin break down in pediatric patients.

❖ Braden Q has seven subcategories: Mobility, activity, sensory perception, moisture, friction, nutrition, and tissue oxygenation and perfusion .

❖ Research suggests that the use of the Braden Q Scale alone for surgical patients is not sufficient for preventing pressure ulcers.

Perioperative Indications:

❖ Skin integrity risk factors for the intraoperative patient include: low Braden Q scores pre-procedure, uncontrolled diabetes with a high blood sugar, hypertension during surgery, renal disease, liver disease, low hemoglobin, low hematocrit, decreased body weight, decrease muscle mass, low albumin, procedure length over 3 hours, patient position, padding devices used, and extracorporeal membrane oxygenation (ECMO) use during surgery.

❖ Patients who have a General, Thoracic, Cardiac, Spine or Neurological surgery are at the highest risk for pressure ulcer development.

❖ Literature suggests the development of a skin integrity hand off tool from the operating room (OR) nurse to the postoperative care nurse would help identify risk factors of pressure ulcers .

❖ Currently a validated tool for determining such risk does not exist .

Methods

❖ An increased awareness of pediatric pressure ulcers occurred in the summer of 2011. A multi-disciplinary task force was developed in August, 2011 to begin to examine skin integrity care practices.

Strategy and Implementation

A skin integrity reporting tool (SIRT) was created in September 2011. The purpose of the SIRT was to aide in the report of skin risks from the operating room to post-operative nursing staff. The goal of the SITF was to improve clinical staff education and ensure competency regarding best practices for maintaining patients' skin integrity.

The literature supports SIRT development since patients who have general, cardiac, spine or neurological and operative procedures which exceed 3 hours are at high risk for developing a HAPU.

The SIRT was first piloted in November, 2011 with patients undergoing cardiac, spine and neurology procedures which exceeded 3 hours and transferred to the Pediatric Intensive Care Unit (PICU).

Once the pilot was successful in decreasing days between hospital acquired pressure ulcer (HAPU) occurrences, the SIRT implementation was expanded to all in-patient surgeries which exceeded 3 hours. Patient outcome data was monitored.

Next Steps taken by SITF:

❖ Paper SIRT converted to electronic medical record (EMR) December 2012

❖ Order sets developed

❖ Product evaluation and implementation

❖ Continuous outcome measurements

SKIN INTEGRITY HAND OFF As Applicable for Your Patient.		I NTEGRITY	
S KIN		pre-op Braden Q Score:	
Name & Age:		Vital Signs: (per anesthesia)	
Weight:		ASA score:	
Diagnosis:		Foley: Yes No	
Procedure:		Skin Dry intact when drapes removed? Yes No	
Diabetes: Yes No		Neuromonitoring: Yes No	
Blood Sugar:		Hematocrit:	
Renal Disease: Yes No		Hemoglobin:	
Liver Disease: Yes No		Albumin:	
		ECMO/pump case: Yes No	
K INETICS		N UTRITION	
Length of Procedure: hours		Diet before surgery:	
Time:		I&O (per anesthesia)	
What position was the patient in?		If Foley-urine output:	
Supine Prone		Wound Care Consultation Needed	
Right Lateral Left Lateral		Yes No	
Other:		Consultation Requested by:	
Padding & Positioning Devices:		RN	
(Lines, Drains, Airways) LDAs:		Comments:	
O2: Nasal Prongs 02 Cannula			

Skin Hand-Off Form & Body Diagram (pg 2) Reviewed by:

_____ Unit, RN & _____ OR, RN

Evaluation

Before the implementation of the SIRT the average number of HAPU free days between occurrences was 27.2; after implementation this number increased to 99 days.

Implications for Practice

❖ Creation of a SITF and SIRT aided in the increase of interventions to prevent HAPUs

❖ Staff education played a significant role in the accurate use of the SIRT

❖ The creation of the SIRT improved the collaboration between OR and post-operative nursing staff.

❖ The use of the SIRT led to a decrease in the number of HAPUs in pediatric post-operative patients.



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