Skin Rounds a QI Initiative to Enhance Skin Care in the Neonatal Intensive Care Unit

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Learner Objectives

1) To demonstrate the effectiveness of weekly skin rounds in improving patient skin care and increasing the identification and reporting of pressure injuries.

2) To discuss the incidence of Stage II or greater pressure injuries in an all-referral Level IIIC NICU.

3) To outline the key components of a successful unit-based skin team.
Why a Skin Team?
Our Journey Begins

Jan 2011—key players meeting to create a unit-based skin team

Nurse Manager
Respiratory Manager
Medical Director
WOCN
QIS
Skin Team Clinical Leader

Development of Key Driver Diagram
Hospital Acquired Neonatal Skin Injuries

**Specific Aim**
Capture J4 Unit skin assessment data with a 90% accuracy between audit sheets and Epic charting by June 30, 2011

**Sub-Aim**
Complete integration roll-out schedule for remaining N eroservices units by June 30, 2011

**Key Drivers**
- Cultural acceptance of skin injury
- Variability in assessment of skin injury
- Variability in reporting of skin injury
- Reporting consistency across all units
- Interdisciplinary assessment approach

**Design Changes / Interventions**
- Develop training and education on neonatal skin injury
- Determine optimal frequency of assessment activities
  - Develop training for team
    - Assessment
    - Documentation
  - Develop neonate standards to monitor and assess skin condition
  - Create tools to assist the assessment team (Check Lists, Pictures, Process, Etc)
- Develop reporting tools and structure for non-Epic units
- ID interdisciplinary skin team
  - Develop communication plan to inform those not directly on the assessment team
  - Family member participation
Formation of the J4 NICU Skin Team

EDUCATION:
June 28, 2011 – educational Webinar for key players on Neonatal Skin Injury and Pressure Ulcers

TEAM FORMATION:
April-June 2011 – identification of team members and on-line NDNQI education

ROUNDS:
July 12, 2011-Aug 4, 2011 – training rounds with the WOCN
Aug 11, 2011 – J4 Skin Team begins weekly rounds on all admitted patients
### Identified Barriers

<table>
<thead>
<tr>
<th>Obstacle</th>
<th>Intervention</th>
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| Perceived disruption of rounds to nursing routine | 1) Standardized time and day for rounds  
2) Staff education on importance of pressure injury prevention  
3) Support from administration and unit leadership |
| Knowledge deficits: pressure injury identification and reporting | 1) Staff education  
2) Real-time support from skin team members |
| Inconsistencies in Documentation               | 1) Standardized documentation expectations  
2) Staff education  
3) Audits |

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Nationwide Children’s  
When your child needs a hospital, everything matters."
Meaningful data collection can lead to...

- Tracking and injury trends
  - Stage
  - Location
  - Cause
- Development of Staff Education
- Injury detection and documentation
- Injury prevention Strategies
<table>
<thead>
<tr>
<th>Date:</th>
<th>Unit</th>
<th>Bed Space</th>
<th>MR#</th>
<th>Admission Date:</th>
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**Skin Condition Score:**

- **Dx:**
- **Age:**
- **Wt:**

**Patient at Risk for Pressure Ulcers:** Yes No
**Position patient in when entered the room:** L R Supine Prone Chair Swing Held
**HOB elevated 15-20 degrees:** Yes No Flat
**Teaching done w/RN:** Yes No

**Type and location of IV Access:**
- **A-Line:**
- **PICC:**
- **CVL:**
- **PIV:**

**Resp Devices:**
- **O2 Sat Probe location rotated:** Yes No
- **ET Tube:**
- **Tracheostomy:**
- **Nasal Cannula:**
- **Other:**

**Does patient have a pressure injury?** Yes No
**# of injuries:**

### Pressure Injury #1
- **Stage:**
- **Location:**
  - **Occiput:** Buttocks
  - **Ear:** Scrotum
  - **Nose:** Trochanter
  - **Forehead:** Thigh
  - **Cheekbone:** Knee/Peri Knee
  - **Scapula:** Ankle
  - **Arm:** Lower Leg
  - **Elbow:** Heel
  - **Hand:** Foot
  - **Back:** Toes
  - **Sacrum/Coccyx:** OTHER
  - **Ischium:**
  - **Wound Documentation on Doc flow sheet:** Yes No
  - **Physician PU Documentation?** Yes No
  - **Patient admitted with Pressure Ulcer?** Yes No
  - **Hospital acquired Pressure Ulcer?** Yes No
  - **Plan of Care?**
  - **Is Pressure Ulcer device related?** Yes No

### Pressure Injury #2
- **Stage:**
- **Location:**
  - **Occiput:** Buttocks
  - **Ear:** Scrotum
  - **Nose:** Trochanter
  - **Forehead:** Thigh
  - **Cheekbone:** Knee/Peri Knee
  - **Scapula:** Ankle
  - **Arm:** Lower Leg
  - **Elbow:** Heel
  - **Hand:** Foot
  - **Back:** Toes
  - **Sacrum/Coccyx:** OTHER
  - **Ischium:**
  - **Wound Documentation on Doc flow sheet:** Yes No
  - **Physician PU Documentation?** Yes No
  - **Patient admitted with Pressure Ulcer?** Yes No
  - **Hospital acquired Pressure Ulcer?** Yes No
  - **Plan of Care?**
  - **Is Pressure Ulcer device related?** Yes No

**Patient on Turning schedule:** Yes No Self Turn
**Type of Bed:** Open Crib Isolette Radiant Warmer Omnibed
**Surface Type:** Z-Flo Egg Crate Wooble Omni, Gel Pillow or Crib mattress
**Acceptable Surface:** Yes No
**Recommended Surface:**

**Incontinence:**
- **Diaper:**
- **Foley:**
- **Ostomy:**
- **Other:**
- **None:**
- **OJ:**
- **OG:**
- **NJ:**
- **NG:**

**Feeding Tubes:**
- **Diaper Dermatitis:** Yes No
- **Barrier Cream being used?** Yes No
- **Type of Barrier Cream:**

**Comments:**
Skin Rounding Data

July 2011 to Feb 2013:

- 3465 patient assessments performed
- Rounded on a median of 47 pts./per week X 74 weeks
- Determined PU incidence in the neonatal population
- Established stable platform on which to build PU Prevention Program
Stage of Pressure Ulcers J4 NICU
July 2011 to February 2013

- Stage II: 84%
- Deep Tissue Injury: 8.6%
- Stage III: 4.3%
- Unstageable: 2.9%
Stage II Pressure Ulcers v. Stage III or Greater J4 NICU
March 2009-February 2013

Start of Weekly Rounds

- Stage II
- All Stage III or Greater
NICU J4
CALENDAR DAYS BETWEEN PRESSURE INJURIES
March 2009 thru March 2013

Chart Type: g-chart

Calendar Days Since Last Injury

Injuries
Baseline Median (Theor.)
Control Limit (Depends on Patient Days)
Cause of Pressure Ulcers J4 NICU
July 2011 to February 2013

- Respiratory Device: 50 occurrences
- immobility: 10 occurrences
- IV Device: 5 occurrences
- Tubes Cables: 3 occurrences
- GI Device: 1 occurrence
Respiratory Devices – ETT NeoBar

Immobility

IV Device – Peripheral Arterial Line
Our Greatest Challenge Remains…
CPAP Injuries
Prevention Strategies
Keys to Success

- Support from both Hospital and Unit Level Administration
- Interdisciplinary approach
- Designation of Skin Team leader(s) and team members
- Scheduled rounds
- Dedicated “off-unit” time
- Tracking of Stage II or Higher PU
- Bedside Huddles on Identified PU
- 200% Accountability for team members and unit leadership
- Participation in NCH Pressure Ulcer Prevention Committee
Impact of Unit Based Skin Team

Skin Assessment and Injury Detection = Unit culture shift
Standardized approach to rounds
- Team training
- Data collection
- Data tracking
- Weekly summaries
Continuing education for staff and team members
Evidence based Practice
Integration research technologies for treatment and prevention of injuries
Ways to Engage Staff

• Dedicated unit skin team bulletin board
• Update each week results from rounds
• Quick read in-services posted in restrooms
  • Discuss during staff meetings
• Huddles performed for all detected PU
Mepilex lite is now a required intervention to prevent skin breakdown associated with CPAP. Mepilex lite should be applied under the CPAP hat straps, along the septum in an “I” formation for CPAP prongs and beneath the CPAP mask in a triangle around the nose.
Moving Forward

• Creating guidelines for forming and maintaining a successful skin team.
• Will continue to measure the effectiveness of interventions
  • Share our data and guidelines to all the NCH nurseries
References


J4 NICU Skin Team

Thanks to our dedicated team of healthcare professionals: