When back to basics is not enough: Strategies to decrease HAPUs

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Carilion Roanoke Memorial Hospital

One of the largest hospitals in the state, Carilion Roanoke Memorial Hospital (CRMH) is a 703-bed hospital with an additional 60-bed Neonatal Intensive Care Unit.

Now in its second century of providing premiere healthcare services, CRMH also features a Level I trauma center.

A Magnet designated facility, CRMH employs over 1000 nurses in acute and ambulatory settings with over 400,000 admissions and visits annually.

Purpose

Background:

Hospital acquired pressure ulcer (HAPU): a "never event" that should be preventable with appropriate nursing interventions.

- In our hospital, HAPU rate above national benchmarks for 8 quarters
- Highest incidence of HAPUs in our ICUs
- "Back to Basics" (Braden Score assessment, targeted interventions, prevalence and incidence studies) not enough to effect change and improve outcomes.
- New approaches sought and evaluated

Purpose:

- Decrease rate of HAPUs
- Implement consistent evidence-based best practice guidelines regarding wound care and pressure ulcer prevention
- Standardize product use for prevention of HAPUs

Quality Improvement Framework

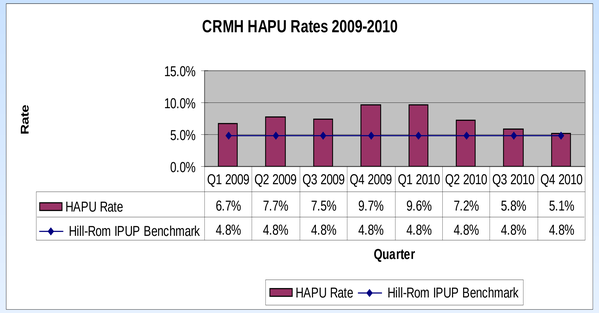
Apply quality improvement methodology: DMAIC

D Define
M Measure
A Analyze
I Improve
C Control

Define

Results from Prevalence and Incidence studies showed facility was above the Hospital Acquired Pressure Ulcer (HAPU) national benchmark for 8 quarters.

Measure



Analyze

- Major risk factors for development of pressure ulcers:
  - Incontinence associated dermatitis
  - Limited turning in ICUs due to complexity of patient conditions
- Lack of comprehensive evidence-based pressure ulcer prevention plan
- Inconsistent/inappropriate use of evidence-based pressure ulcer prevention products
- Inconsistent/inaccurate data collection process
- Lack of education for nursing staff regarding pressure ulcer staging, identification, and prevention

Improve

Team of Clinical Nurse Specialist, Wound/Ostomy Nurses, Staff Nurses and Nurse Researcher reviewed literature for best practice related to skin breakdown and HAPUs

Strategies for Improvement

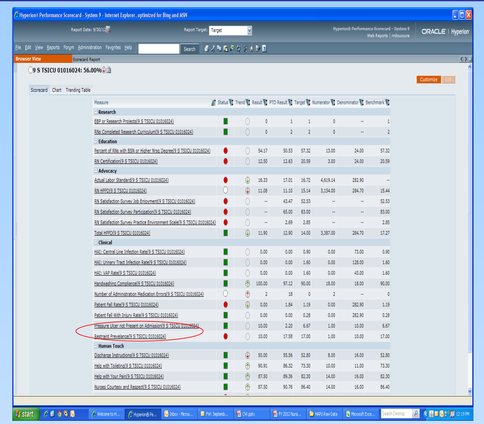
Following Quality Improvement Study:

1. Implemented use of evidence-based products:
   a) *Incontinence Barrier Wipes and briefs* for incontinence care
   b) *High moisture wicking disposable under pad, static air mattress overlay and seat cushion* to positively impact moisture/positioning
   c) *Turning and Repositioning Sheet* to assist staff with patient turning and repositioning in less time and with less staff effort
2. Partnered with Materials Management to develop an advanced wound care product formulary
3. Implemented Deep Dive Process to examine the cause of every HAPU identified
4. Wound Care Education Days for all nursing staff focusing on new product implementation and pressure ulcer prevention
5. Unit-to-Unit in-services for new products and proper utilization

Control

- Implement evidence-based Pressure Ulcer Prevention Policy
- Quarterly advanced wound care product formulary reviews
- Bi-annual Wound Care Education Days
- Monthly pressure ulcer prevalence studies
- Monthly Hospital Acquired Pressure Ulcer Deep Dives
- Feedback to units through nursing scorecards and wound council on unit/aggregate patient data

Feedback: Unit-based outcomes

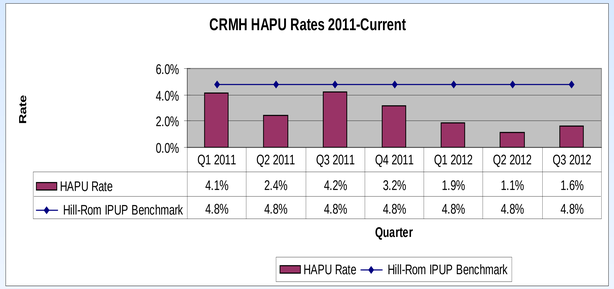


Aggregate Outcomes

Consistent reduction in HAPU rates

Roll-up rates: 2009: 7.9% to 2012: 1.3%

(as compared to Hill-Rom International Benchmark of 4.5-4.8%)



Lessons Learned

Skin care and positioning are time-honored interventions to prevent HAPU but poor patient outcomes led us to evaluate practice.

Through exploring, evaluating and integrating new technologies into our arsenal of HAPU prevention, we developed new strategies for care and improved quality.

Clinical Nurse Specialist expertise and ownership of the project was essential for staff buy-in and administrative support.