

Incontinence Cleansing Protocol Results in 75% Decrease in IAD and 20% Decrease in Facility-Acquired Pressure Ulcers

Rhonda Sullivan PhD, RN, CWON, LNCC
 Certified Wound-Ostomy Nurse

Mayo Clinic, Jacksonville, FL

Abstract

Background: Improperly-managed incontinence exposes the skin to excessive moisture, fungal or bacterial pathogens, digestive enzymes in the stool, and increased pH. This compromises the skin barrier function triggering incontinence-associated dermatitis (IAD). IAD weakens the skin, increasing the risk of pressure ulcer formation. The result is pain, increased nursing time, costly product utilization, increased mortality, and the challenges of pressure ulcer no-pay guidelines.

Purpose: Initiate an evidence-based incontinence care regimen that encompasses a pH-balanced cleanser that moisturizes and protects the skin to achieve validated outcomes for IAD prevention.

Setting: 214-bed acute care facility

Design: Clinical trial and 12-month observational study

Methods: The incontinence cleansing protocol was standardized to include the use of an all-in-one, disposable, dimethicone-infused barrier cloth* with each episode of incontinence. Staff education was provided regarding best practices for IAD and pressure ulcer prevention. A pre and post IAD point prevalence assessment was conducted of all hospitalized patients using a computerized IAD assessment tool. A secondary analysis of pressure ulcer incidence and product utilization was completed.

Results: The post-intervention IAD point prevalence assessment revealed a 75% decrease in facility-acquired IAD and 19% more patients had the incontinence barrier cloths in the room than during the pre-intervention period. These outcomes were achieved while utilizing only 50% of the projected financial investment.

Decreased utilization of pre-intervention incontinence care products resulted in a 17.65% savings. This cost will further diminish once the planned removal of seven (7) redundant products is completed.

Though the overall incidence of hospital-acquired pressure ulcers (HAPU) increased; the HAPU incidence among incontinent patients decreased 20%. The overall severity of pressure ulcers also decreased following the initiation of the cleansing protocol. The median stage was stage II. Suspected deep tissue injury ulcers decreased 76.9%. Unstageable ulcers decreased from 6 to zero. No stage III or stage IV pressure ulcers occurred.

*Comfort Shield® Barrier Cream Cloths (Sage Products LLC, Cary, IL)

Purpose

In the study facility, a flourishing liver transplant population is associated with an increased incidence of incontinence and the associated complication of IAD. This immune-suppressed population is also at increased risk for infection and mortality associated with complications of care.

The purpose of this quality improvement initiative was to reduce facility-acquired incontinence-associated dermatitis (IAD) and positively impact facility-acquired pressure ulcers by initiating an evidence-based incontinence care regimen that encompasses a pH-balanced cleanser that moisturizes and protects the skin.

Incontinence-Associated Dermatitis (IAD)

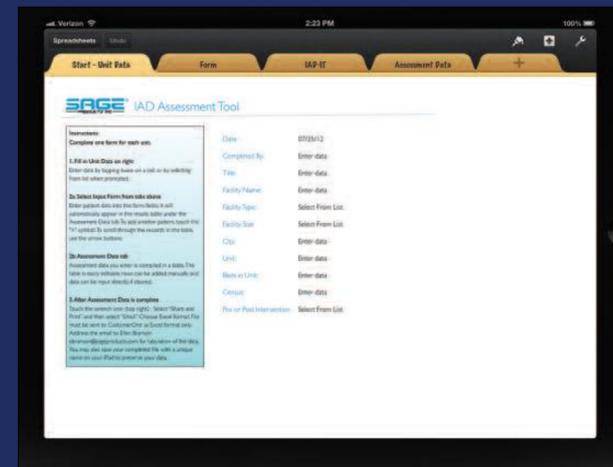


Methods

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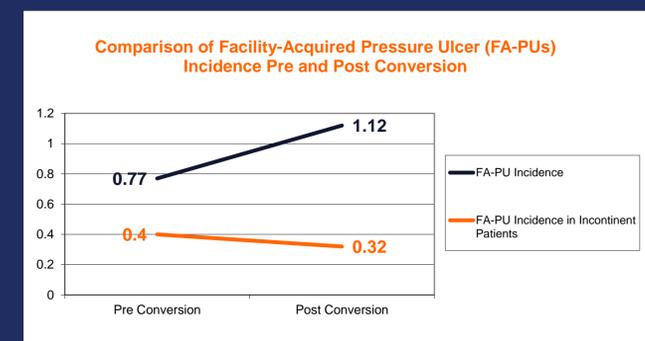
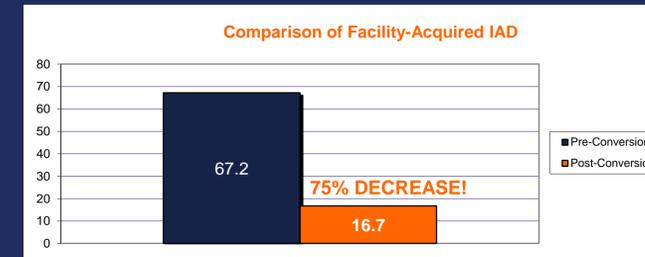
IAD Assessment Tool



Results

IAD Assessment Pre and Post Conversion	Pre-Trial	Post-Trial
Patients Surveyed	184	195
Incontinence Rate	34.7%	15.4%
Incontinent Patients with Barrier in the Room	67.2%	80.0%
Facility-Acquired IAD rate	67.2%	16.7%

Better Patient Outcomes

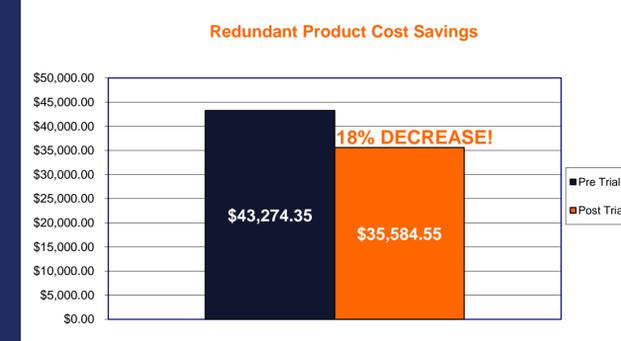


Cost Savings

- The initiation of a standardized cleansing protocol using the all-in-one cleansing cloths allowed for cost savings associated with decreased utilization of 6 of 7 redundant products.
- However, the use of baby wipes increased 27%. This suggests the need for further education since pre-cleansing with baby wipes is not indicated.
- All seven redundant products are slated for removal in mid to late 2014 which will result in significant cost savings while facilitating increased compliance with the established incontinence cleansing protocol.
- The potential for cost savings associated with decreased linen utilization has not been elucidated.

REDUNDANT PRODUCTS

Bar Soap
Chlorhexidine Scrub 32oz
Chlorhexidine Scrub 4oz
Wash Basin
Baby Wipes
Perineal Cleanser
Dimethicone-Based Incontinence Barrier
Aloe-Based Incontinence Barrier



Conclusions

- Current product cost decreased 17.65% during the trial resulting in a \$7,689.00 savings in 12 months.
- Barrier compliance increased 19% with the use of the all-in-one barrier cream cloths.
- Facility saw a 75% decrease in facility-acquired IAD following conversion to the all-in-one barrier cream cloths.
- FA-PU incidence rate increased 45% but dropped 20% in the incontinent population post-trial

Discussion

IAD, like all complications of care, present a challenge to healthcare providers. We are charged with the responsibility of timely, evidence-based care and challenged with effectively managing the costs associated with that care while minimizing the complications of care. For these reasons, early monitoring and prevention of IAD is essential.

The initiation of a standardized incontinence cleansing protocol afforded Mayo Clinic the opportunity to provide evidence-based prevention and care for IAD and to minimize the associated complications. The change in practice enabled effective incontinence cleansing in our high-risk patient population and provided an easy and consistent method for applying a barrier with every episode of incontinence care. There remains both an opportunity for additional cost savings upon removal of the redundant products as well as opportunities to have an even greater impact on our IAD rates with change management to ensure continued and increase compliance with the cleansing protocol.

References

- Gray M, Bliss DZ, Doughty DB, Ermer-Seltun J, Kennedy-Evans, KL, Palmer MH. Incontinence-associated dermatitis: a consensus. J Wound Ostomy Continence Nurs. 2007 Jan-Feb;34(1):45-54
- Gray M, Beeckman D, Bliss DZ, Fader M, Logan S, Junkin J, Selekof J, Doughty D, Kurz P. Incontinence-associated dermatitis: a comprehensive review and update. J Wound Ostomy Continence Nurs. 2012 Jan-Feb;39(1):61-74.