# Quality Improvement Initiative Decreases Incontinence-Associated Dermatitis 92%

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#### ABSTRACT

QUALITY IMPROVEMENT INITIATIVE DECREASES INCONTINENCE-ASSOCIATED DERMATITIS 92%

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Topic: Clinical Category: Other Keywords: Incontinence, Dermatitis, Perineal Care, Critical Care, IAD, Disposable Barrier Cloth Disclosures:

The purpose of this quality improvement initiative was to reduce facility-acquired incontinence associated dermatitis (IAD) and facility-acquired pressure ulcers on a 20-bed medical intensive care unit. Nursing staff were educated on evidence-based best practices to prevent IAD and pressure ulcers, and modified their incontinence cleansing protocol to include an all-in-one, disposable, barrier cloth with each episode of incontinence. The barrier cloths were stored at the patient's bedside. An IAD survey was conducted before (N=18) and after (N=19) and found a 92% decrease in facility acquired IAD. Of the 11 incontinent patients evaluated before (09/18/12), 9 had facility acquired IAD. Two of the patients had facility-acquired sacral pressure ulcers on the survey conducted 09/18/12. Of the 15 incontinent patients evaluated after (10/23/12), 1 had facility-acquired IAD. None of the patients had facility-acquired pressure ulcers on the survey conducted 10/23/12. A staff survey revealed high satisfaction with the product due to ease of use. Nursing leadership and staff felt the change in practice enabled effective incontinence cleansing in this high-risk patient population, and provided an easy and consistent method for applying a barrier with every episode of incontinence. The change in practice allowed staff to comply with evidence-based best practices for IAD prevention.

#### BACKGROUND

Incontinence-associated dermatitis (IAD) is a frequent complication in acute care settings and is associated with significant clinical problems such as pain, increased risk of secondary infections and pressure ulceration. 1,2 The condition of IAD has been defined as an "inflammation of the skin that occurs when urine or stool comes into contact with perineal or perigenital skin", and improperly managed incontinence can lead to compromised skin barrier function through a variety of interacting factors. 1,3 Such factors include exposure to moisture, increased pH, contact with digestive enzymes in the stool, and fungal or bacterial pathogens. Skin that is compromised as a result of IAD is a risk factor for pressure ulcer (PU) development.

A comprehensive literature review by a multinational group of clinicians evaluated the existing evidence on IAD,<sup>4</sup> and an international consensus conference helped develop evidence-based guidelines for the prevention and management of this prevalent clinical problem.<sup>2</sup> Recommendations include a consistent, well-defined skin care regimen that encompasses the use of a cleanser with a pH range similar to normal skin, moisturizing to maintain normal skin function, and the application of a moisture barrier product for the prevention of IAD in patients with urinary and/or fecal incontinence. 1,2

A number of challenges must be overcome to develop optimal evidence-based IAD prevention strategies. Differences in care settings, inadequate tracking of incontinence, and difficulty in distinguishing IAD from other pathologically and clinically distinct conditions such as pressure ulcers (PU) and intertriginous dermatitis have compromised reported prevalence and incidence rates.<sup>1,2</sup> This has made benchmarking difficult for the development of IAD prevention and management practices. In addition, there is insufficient evidence to recommend specific skin care regimens to prevent or treat IAD in all patients.<sup>2</sup> Further studies are needed to identify cost-effective IAD prevention strategies, while improving prevalence and incidence reporting and promoting compliance among healthcare providers in acute care facilities.

#### METHODS

Clinical setting: 20-bed medical intensive care unit (ICU) in a quaternary care hospital

Preliminary skin care assessment: A point prevalence assessment was conducted with a novel skin assessment tool utilizing a computerized tablet program in conjunction with a trained team to assess patient skin condition and IAD prevalence.

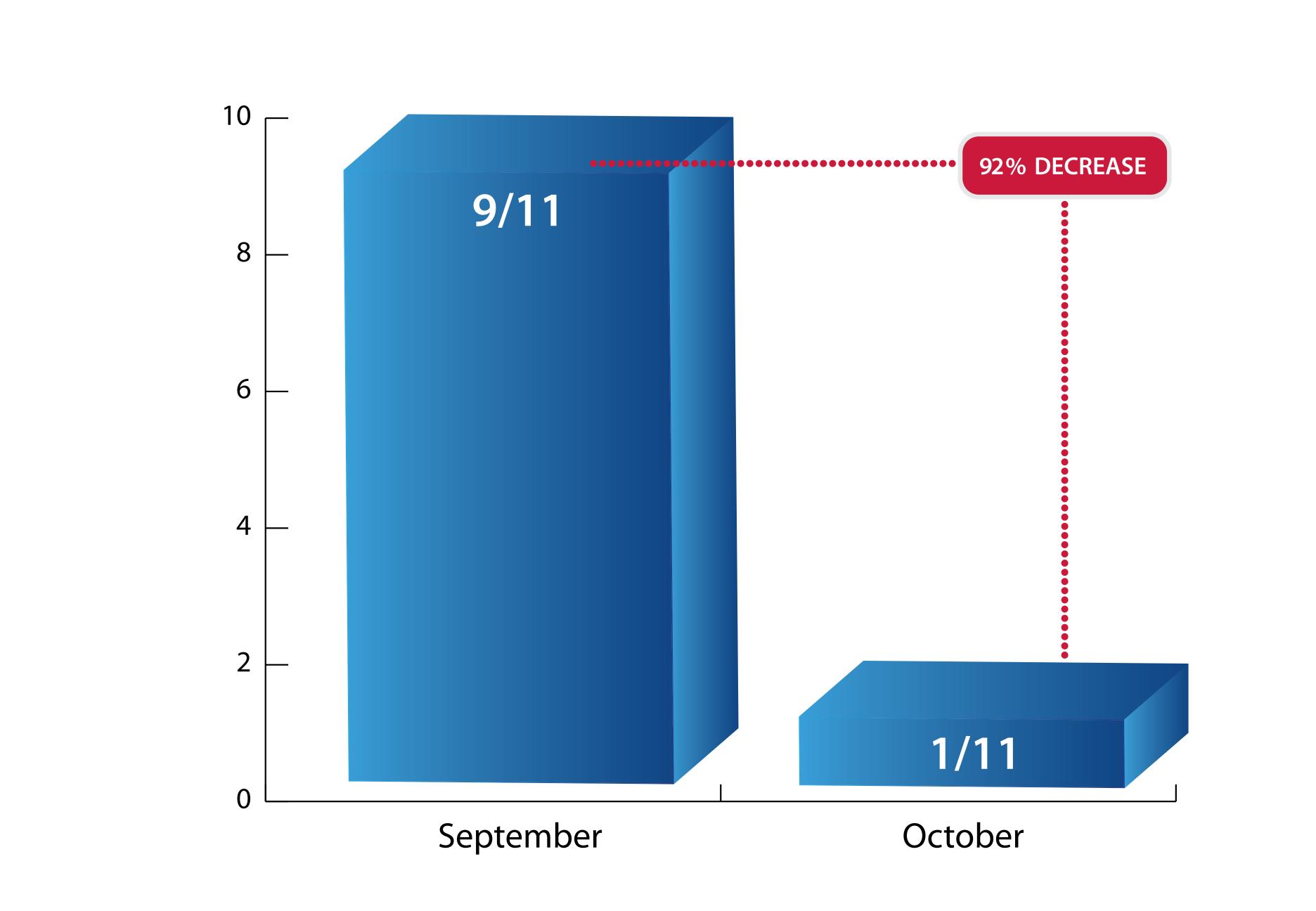
Product standardization: The incontinence hygiene protocol was standardized on this unit by ensuring an all-in-one barrier cloth\* was available at the patients' bedsides. Staff were trained on the appropriate use and disposal of the barrier cloths for incontinence hygiene.

Post-intervention care assessment: A post-intervention point prevalence assessment was conducted with the same skin assessment tool and staff to assess patient skin condition and IAD prevalence.

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# RESULTS

 Figure shows 9 out of 11 patients had facility acquired IAD on the point prevalence audit in October and 1 out of 11 patients had facility acquired IAD on the audit in September



## CLINICAL IMPLICATIONS

The effectiveness and convenience of an all- in- one prepackaged incontinence hygiene product resulted in a dramatic improvement in IAD in a high risk population. This small pilot study adds to the evidence that combining evidence-based interventions with technology can result in improved patient outcomes. Although no definitive conclusions can be made as a result of this pilot study, patient outcomes improved and caregiver satisfaction was high as a result of this Quality Improvement intervention. In addition, the use of the computerized tablet IAD point prevalence tool was useful in conducting "before" and "after" point prevalence audits to assess the effectiveness of our IAD prevention interventions.

- Standardizing incontinence hygiene products and ensuring products are conveniently located at the bedside can help prevent facility-acquired IAD
- Staff found the IAD prevalence audit tool easy to use
- The use of technology can aid in IAD prevalence audits

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