Implementing Nurse-Driven Interventions to Improve Incontinence Associated Dermatitis and Hospital-Acquired Pressure Ulcers

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A nurse-driven initiative was undertaken at Carilion Clinic in Roanoke, Virginia to investigate the prevalence of incontinence and the development of pressure ulcers (PUs). Six implementation strategies were considered: (1) implementation of a barrier cloth during incontinence cleanup, (2) implementation of a barrier cloth at every bedside, which can help prevent incontinence-associated dermatitis (IAD), (3) implementation of a barrier system that incorporates cleansing solutions with moisturizing and barrier application cloth during incontinence cleanup, (4) differentiation of IAD and PUs, documentation, and best practice for incontinence-associated skin breakdown, and further supports the importance of standardized intervention. Pathway education was delivered throughout the hospital to standardize care and improve the effectiveness of an all-in-one preventive barrier cloth (Comfort Shield® Barrier Cream Cloths, Sage Products Inc, Cary, IL). A prospective 2-phase evaluation was conducted in a high-risk patient population (1) intervention unit (neurotrauma intensive care unit (ICU), neurotrauma progressive care unit (PCU), and neuro step-down unit) and (2) control unit (neuro step-down) receiving standard of care. Surveys were conducted to determine the prevalence of incontinence in the high-risk patient population, identifying patients incontinent of urine, stool, or both. Patients were followed to determine incidence of incontinence and occurrence of HAPUs in the patient population. No additional education was provided during Phase 1. Phase 1 was initiated on 02/01/11 and all patients were followed until discharge or up to 14 days following admission. During Phase 1, patients in units received standard of care. Surveys were conducted for 7 days following admission to determine the prevalence of incontinence in the high-risk patient population – identifying patients incontinent of urine, stool, or both. Patients were followed to determine incidence of incontinence and occurrence of HAPUs in the patient population. No additional education was provided during Phase 1. Phase 2 was initiated on 03/01/11 and all patients were followed until discharge or up to 14 days following admission. During Phase 2, units were separated into “control” and “intervention” units. The control unit (neuro step-down) received standard of care and intervention units (neurotrauma ICU and neurotrauma PCU) received the intervention. Caregiver education consisted of facility-based online education (neurotrauma ICU and neurotrauma PCU) and facility-based (neuro step-down unit) education that standardized incontinence intervention. Incontinence education was based on standardized use of multiple products including foam cleanser, washcloths, and hospital grade moisturizers and zinc-based barrier creams (at caregiver discretion). The Intervention Group received standard of care defined as standardized use of a disposable 1-step cleansing, moisturizing, and barrier application cloth during incontinence cleanup.

Phase descriptions

Phase 1: Of 29 patients who were incontinent, 25% (6 pts) developed IAD (Figure 2). Phase 2: Of 29 patients who were incontinent, 25% (7 pts) developed IAD (Figure 2).

Prevalence of incontinence (n = 200)

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Incontinence Prevalence Survey Results

The prevalence of incontinence of all patients (n=200) was 39% (78 pts) (Table 1). One of 10 patients were incontinent of urine or stool, 19% (38 pts) of 200 patients were incontinent, 25% (6 pts) developed IAD (Figure 2). The Control Group received standard of care. Standard of care was defined as standardized use of multiple products including foam cleanser, washcloths, and hospital grade moisturizers and zinc-based barrier creams (patients discretion). The Intervention Group received standard of care defined as standardized use of a disposable 1-step cleansing, moisturizing, and barrier application cloth during incontinence cleanup.

Phase descriptions

Phase 1: Of 11 patients who developed IAD, 82% (9 pts) received the intervention. Phase 2: Of 100 patients, 49% (49 pts) received an intervention that standardized incontinence intervention. Incontinence in this patient population, concurs with current literature and the prevalence of incontinence increases with age. Chronic exposure to urine and/or fecal material related skin breakdown, and further supports the importance of standardized intervention. Pathway education was delivered throughout the hospital to standardize care and improve the effectiveness of an all-in-one preventive barrier cloth (Comfort Shield® Barrier Cream Cloths, Sage Products Inc, Cary, IL). A prospective 2-phase evaluation was conducted in a high-risk patient population (1) intervention unit (neurotrauma intensive care unit (ICU), neurotrauma progressive care unit (PCU), and neuro step-down unit) and (2) control unit (neuro step-down) receiving standard of care. Surveys were conducted to determine the prevalence of incontinence in the high-risk patient population – identifying patients incontinent of urine, stool, or both. Patients were followed to determine incidence of incontinence and occurrence of HAPUs in the patient population. No additional education was provided during Phase 1. Phase 2 was initiated on 03/01/11 and all patients were followed until discharge or up to 14 days following admission. During Phase 2, units were separated into “control” and “intervention” units. The control unit (neuro step-down) received standard of care and intervention units (neurotrauma ICU and neurotrauma PCU) received the intervention. Caregiver education consisted of facility-based online education (neurotrauma ICU and neurotrauma PCU) and facility-based (neuro step-down unit) education that standardized incontinence intervention. Incontinence education was based on standardized use of multiple products including foam cleanser, washcloths, and hospital grade moisturizers and zinc-based barrier creams (at caregiver discretion). The Intervention Group received standard of care defined as standardized use of a disposable 1-step cleansing, moisturizing, and barrier application cloth during incontinence cleanup.

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