WebinarPLUS+

INCONTINENCE-ASSOCIATED SKIN DAMAGE

INNOVATIVE APPROACHES TO ASSESSING AND PREVENTING THIS DEBILITATING CONDITION ARE SHOWING PROMISE

For decades, it was a problem that went woefully ignored and was largely misunderstood.

Despite increased awareness and all that science has thrown at it in recent years, incontinence and the damage it inflicts on skin remains a costly and insidious challenge, continuing to affect thousands of elderly every day.

Donna Bliss, Ph.D., RN, FAAN, a renowned incontinence researcher and University of Minnesota School of Nursing professor, is on a crusade to change that. After years of treating and studying the ravages of incontinence associated skin damage (IASD), Bliss and colleagues have developed an innovative assessment tool and other novel educational programs aimed at mitigating the problem.

In early June, Bliss and her team also released findings from a landmark study they say supports a new approach to combating IASD. At the heart of the strategy are findings showing how an absorbent brief with a specially developed, proprietary, spiral-shaped, plant-based cellulose fiber significantly lowers and acidifies skin pH, reducing the risk for IASD in older nursing home residents.

Just weeks after announcing the results, Bliss presented "Innovative approaches to assessing and preventing incontinence associated skin damage in nursing home residents" during an hour-long *McKnight's* webinar.

The live event, which was sponsored by Hartmann, helped participants learn IASD signs in light and dark skin, and symptoms and risk factors. It also explored prevention and educational strategies and showed the potential benefits from lowering skin pH.

A painful condition

IASD is an inflammatory type of damage of the skin barrier, most often resulting from irritants such as feces and urine, according to Bliss. IASD can manifest as pink or red-colored skin, or even a purplish color. It may appear as a lighter or darker tone of the underlying color.

The disease affects the superficial skin layers and skin may appear shiny or wet if layers are lost. Unlike a pressure injury, the edges of damage are irregular and not well-defined. IASD also can result in symptoms ranging from discomfort to pain, with itching and burning sensations like sunburn. And it has been shown to leave behind lasting abnormalities, or sequelae, according to recent research.

IASD is most prevalent in the buttocks and anal area in nursing home residents, and is about half as prevalent in the genital area,

A SUPPLEMENT TO McKnight's LONG-TERM CARE NEWS

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thighs and perineum.

Bliss and her colleagues studied nearly 1,000 nursing home residents to explore the underlying causes and risks for IASD.

"Why is assessing for IASD so important? For many years, it was an unrecognized and overlooked problem," observed Bliss. "Studies have shown that even for nursing home residents on a skin damage prevention program, the prevalence and incidence of IASD was not zero, but occurred in 3% to 6% of residents. In long-term acute care residents, the prevalence of IASD was even higher, about 20%. And new cases developed in 7% of those residents.

"Residents in nursing homes with chronic health problems have other systemic risk factors for IASD that compromise the health of skin tissue, such as poor nutrition and decreased perfusion," Bliss continued. "Their toileting ability is lessened because of cognitive deficits and limitations in mobility."

IASD confounds so many caregivers because it manages to recur even after rigid containment and mitigation efforts. Bliss showed webinar participants a chart with data on community-living individuals with dual or fecal incontinence. In some, IASD would be found once; in most, it was discovered several times. Complicating matters is the fact that older skin replaces itself less often, loses its elasticity, heals slower and tends to have a higher pH, an alkaline-intense breeding ground for damage.

Prevention strategies

In their recent study of over 10,000 residents in nursing homes across 28 states, Bliss and colleagues found that only 12% who developed IASD after admission received preventive measures.

"Knowing the risk factors of IASD and their importance will support prevention efforts and hopefully raise the percentage of prevention that is given to residents with incontinence," she said.

> *Knowing the risk factors of IASD and their importance will support prevention efforts.*

These risk factors include: leaked urine and feces, irritating cleansers and delayed or harsh cleansing. Many absorbent briefs can actually exacerbate IASD because they can raise the skin pH even higher and create a "leaky skin barrier, making the skin susceptible to yeast and bacterial infection," Bliss explained.

"The properties of incontinence absorbent products have greatly improved over time in terms of the sizes, fit, absorbency, ability to wick moisture away from the skin, lower leakage, smoothness and softness, and construction of more breathable materials," Bliss said. "But as nursing staff, you know absorbent products are not the only intervention for incontinence."

A $400 million problem

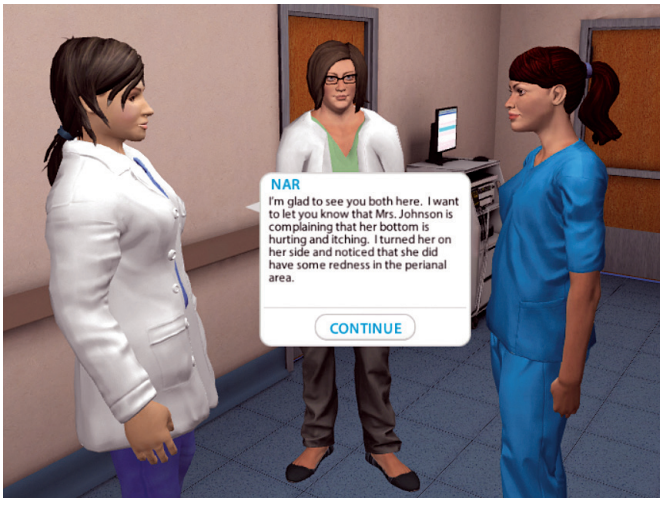
Bliss asserts that to understand the importance of IASD prevention, caregivers must grasp the financial toll it places on the healthcare system.

"The costs of IASD are not minor. In 1995 dollars, treating IASD just in community living patients was estimated to be $400 million, and likely more in today's dollars," she said. "Serious damage from IASD is often twice as costly as mild damage. So preventing the worsening of IASD is fiscally important."

Preventing IASD also will reduce the risk of other morbidities such as fungal infection and pressure injuries, she added.

Preserving the skin's health is paramount and, of course, is a leading best practice.

"Maintaining a non-damaged skin barrier is important for central



For more information

The original webcast is available at www.mcknights.com/june23webinar

ROLE PLAYING

The free IASD.D.2 simulation game calls for problem-solving and offers CE credit.

bodily functions of fluid balance, keeping proteins and electrolytes in and harmful bacteria and infections out, as well as temperature regulation," Bliss said. "In studies of mice that had these skin functions altered, not only did the mice get sick, they died. The skin barrier is a sophisticated and amazing layering of a mantle of cells and lipids organized into a tight-fitting matrix of which we really want to maintain integrity."

Bliss said gentle cleansing with quality, no-rinse skin care products, as well as application of moisturizers and protectants, should be part of a regimen for maintaining the skin barrier integrity.

The second strategy for IASD prevention is to eliminate or reduce the severity of its underlying cause — incontinence.

"This includes addressing reversible risk factors such as the need for toileting assistance, and assessing the adequacy of fluid diet and fiber intake," Bliss said. Other measures include evaluating the possible benefits of medications; eliminating and treating urinary retention, fecal impaction and constipation; and introducing behavioral therapies such as bladder and bowel training, a toileting program and pelvic-floor muscle exercises.

'Curly fiber' breakthrough

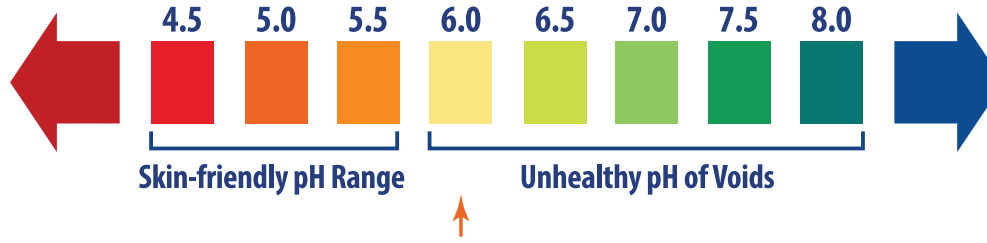
In her zeal to study ways to change the chemistry of aged skin, Bliss and her team embarked on exhaustive research of a proprietary cotton-like material called "curly fiber," the ingredient that adds the core padding to certain incontinence briefs on the market.

Some labeled the results "landmark" because Bliss was able to show the material actually lowered the pH of elderly residents' skin, effectively making it more acidic.

Initial findings were unveiled at the 2016 WOCN® Society and CAET Joint Conference in Montreal. An abstract is published in the May-June 2016 supplement to the *Journal of Wound, Ostomy and Continence Nursing*.

"The study was designed to assess whether briefs with curly fiber could maintain the acidity of skin and not just the incontinence brief when wet with an alkaline solution," Bliss told webinar attendees. She and her research team compared the skin pH without exposure to a brief with curly fiber wet with an alkaline solution to a brief with curly fiber. Investigators focused on six areas of the inner thigh and forearm in research subjects.

Residents exposed to curly fiber briefs wetted with an alkaline solution mimicking urine had skin pH levels of less than 6.0. Those exposed to standard briefs without curly fibers had significantly higher (more alkaline) skin pH. In addition, Bliss and her team concluded that absorbent briefs with curly fiber have the potential to prevent IASD in nursing home residents. Results suggest that briefs with curly fiber also might be able to reduce IASD severity and promote IASD healing, but further studies are needed.



Curly Fiber incontinence products reduce the high pH of voids to a skin-friendly pH 5.5.

ACID TEST

Monitoring and managing skin pH levels is critical with residents prone to IASD.

Over the past few years, Bliss and colleagues have come to the realization that the incontinence skin-damage issue was in dire need of a standardized instrument for assessing IASD and its severity — from light to dark skin.

New IASD assessment tool

The result of extensive research is the IASD.D.2 Instrument, a comprehensive assessment tool available free online at *http://license.umn.edu/technologies/20150057_incontinence-associated-dermatitis-assessment-tool*.

The tool was developed in conjunction with WOCN experts to assist nursing staff in improving patient care related to the reporting of the presence and severity of IASD, and monitoring its improvement or worsening.

"Keeping up-to-date is the third strategy of successful prevention," Bliss said. "I am passionate about empowering nursing staff and reducing IASD; and was very glad to be part of a project that developed a highly innovative approach of teaching about IASD you can use."

The instrument gives visual reminders of and a scoring tool for the 14 bilateral body areas where IASD can occur. It includes descriptions of where each body area of IASD starts and ends. Light, medium and dark skin are categorized in the tool by four major successive changes — from pink to red to rash to skin loss.

Bliss said her team at the University of Minnesota School of Nursing has been continuously evaluating the instrument for criterion validity and reliability in different clinical settings. They plan to further refine the instrument after testing with nursing home staff this summer.

The IASD.D.2 instrument is also featured in a web-based, interactive simulation exercise, or "game," that users can employ as a walk-through of various assessment techniques, caregiver roles and problem-solving.

Characters in the exercise, which are reminiscent of the "SIMS" video game genre, interact with the user, posing questions and guiding her or him to the correct answers.

There are two 20-minute interactive modules for which nurses can receive continuing education (CE) credit. ■

Editor's note

This McKnight's *Webinar Plus supplement is based on a themed webinar* McKnight's *presented on June 23. The event was sponsored by Hartmann. The full presentation is available at* www.mcknights.com/june23webinar.