

How to manage incontinence-associated dermatitis

Prevention and prompt action are keys to managing this painful and costly complication.

By Nancy Chatham, MSN, RN, ANP-BC, CWOCN, CWS, and Carrie Carls, BSN, RN, CWOCN, CHRN

Moisture-related skin breakdown has been called many things—perineal dermatitis, irritant dermatitis, contact dermatitis, heat rash, and anything else caregivers could think of to describe the damage occurring when moisture from urine or stool is left on the skin. At a 2005 consensus conference, attendees chose the term *incontinence-associated dermatitis* (IAD).

IAD can be painful, hard to properly identify, complicated to treat, and costly. It's part of a larger group of moisture-associated skin damage that also includes intertrigo and periwound maceration. IAD prevalence and incidence vary widely with the care setting and study design. Appropriate diagnosis, prompt treatment, and management of the irritant source are crucial to long-term treatment.

Causes

IAD stems from the effects of urine, stool, and containment devices on the skin. The skin's pH contributes to its barrier functions and defenses against bacteria and fungus; ideal pH is 5.0 to 5.9. Urine pH ranges from 4.5 to 8.0; the higher range is alkaline and contributes to skin damage.

Skin moisture isn't necessarily damaging. But when moisture that contains irritating substances, such as alkaline urine, contacts the skin for a prolonged period, damage can occur. Urine on the skin alters the normal



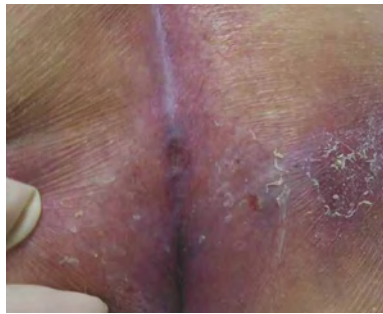
skin flora and increases permeability of the stratum corneum, weakening the skin and making it more susceptible to friction and erosion. Fecal incontinence leads to active fecal enzymes on the skin, which contribute to skin damage. Fecal bacteria can penetrate the skin, increasing the risk of secondary infection. Wet skin has a lower temperature than dry skin; wet skin under a pressure load has less blood flow than dry skin.

Containment devices, otherwise known as adult diapers or briefs, are multilayer disposable garments containing a superabsorbent polymer. The polymer is designed to wick and trap moisture in the containment device. This ultimately affects the skin by trapping heat and moisture, which may cause redness and inflammation that can progress to skin erosion. This trapping can lead to increased pressure against the skin, especially if the device has absorbed liquid and remains in contact with the skin.

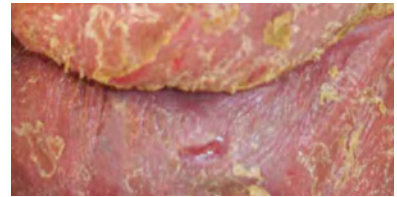
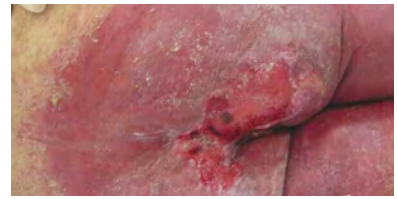
Picturing IAD



Mild IAD refers to light redness, intact skin, and mild discomfort.



With **moderate IAD**, expect medium redness, skin peeling or flaking, small areas of partial-thickness skin damage and/or small blisters, and pain or discomfort.



Severe IAD causes dark or intense redness, rash, deeper skin peeling or larger areas of erosion, large blisters, weeping skin, and pain.

Categorizing IAD

IAD is categorized as mild, moderate, or severe. (See *Picturing IAD*.)

Screening for IAD

Screen the patient's skin for persistent redness, inflammation, rash, pain, and itching at least daily. To differentiate IAD from pressure ulcers, keep in mind that:

- IAD can occur wherever urine or stool contacts the skin. In contrast, pressure ulcers arise over bony prominences in the absence of moisture.

edges are well defined.

- The depth of IAD-related skin damage usually is partial-thickness without necrotic tissue. With a pressure ulcer, skin damage depth may vary.

Preventing IAD

The three essentials of IAD prevention are to cleanse, moisturize, and protect.

- **Cleanse** the skin with a mild soap that's balanced to skin pH and contains surfactants that lift stool and urine from the skin. Clean the skin routinely and at the time of soiling. Use warm (not hot) water, and avoid excess force and friction to avoid further skin damage.
- **Moisturize** the skin daily and as needed. Moisturizers may be applied alone or incorporated into a cleanser. Typically, they contain an emollient such as lanolin to replace lost lipids in the stratum corneum.
- To **protect** the skin, apply a moisture-barrier cream or spray if the patient has significant urinary or fecal incontinence (or both). The barrier may be zinc-based, petrolatum-based, dimethicone-based, an acrylic polymer, or

Clean the skin routinely and at the time of soiling.

- With IAD, affected skin is red or bright red. With a pressure ulcer, skin may take on a bluish purple, red, yellow, or black discoloration.
- The skin-damage pattern in IAD usually is diffuse. With a pressure ulcer,

another type. Consider using an algorithm developed by wound and skin care specialists that's customized for skin care products your facility uses. (See *Skin care algorithm*.)

If the treatment protocol fails, the patient should be referred to an appropriate skin care specialist promptly.

To help prevent urine or stool from contacting the patient's skin, consider using a male external catheter, a female urinary pouch, a fecal pouch, or a bowel management system. Avoid containment devices. If the patient has a containment pad, make sure it's highly absorbent and not layered, to decrease pressure under the patient.

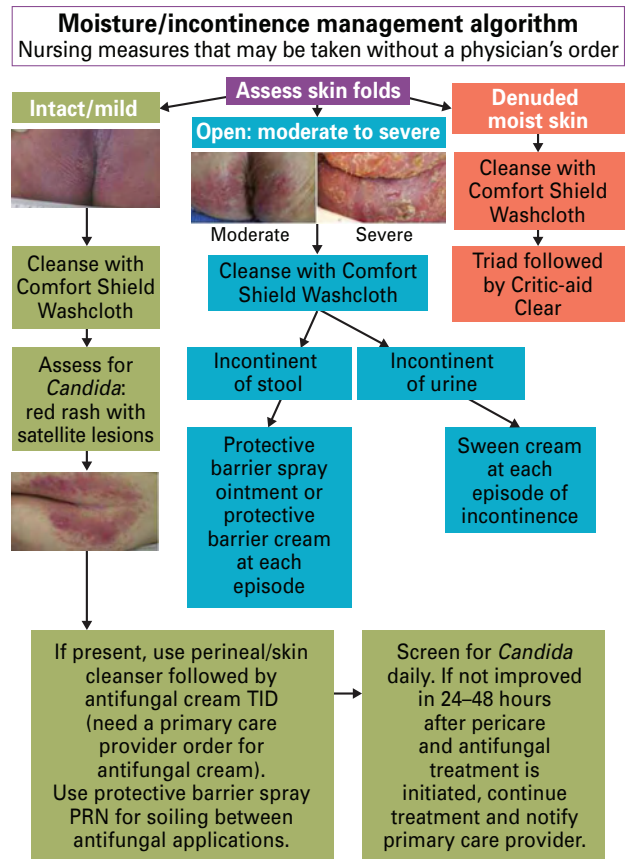
Managing IAD

A comprehensive multidisciplinary approach to IAD is essential to the success of any skin care protocol. Identify skin care champions within your facility and educate them on IAD. Incorporating administrators, physicians, nursing staff, therapists, and care assistants makes implementation of protocols and algorithms within an institution seamless.

Administrators support the skin care program in the facility, including authorizing a budget so product purchases can be made. The *certified wound clinician* is the team expert regarding skin care, incontinence, prevention, and product recommendation. The *physician* oversees protocol development and evaluates and prescribes additional treatment when a patient fails to respond to treatment algorithms. *Nursing staff* identify patients at risk, incorporate the algorithm into the patient's plan of care, and direct *care assistants*. *Therapists* address function, strength, and endurance issues to improve the patient's self-care abilities in activities of daily living to manage or prevent episodes of incontinence.

In severe inflammation, topical dressings, such as alginates and foam dressings,

Skin care algorithm



Other incontinence aids: (follow package directions)

- External catheter: change daily
- Fecal pouch: change every 8 hours to every other day
- Bowel management system: follow manufacturer's directions
- Absorbent pad if needed: minimize incontinent pad use under the patient to reduce pressure and avoid wrinkles. Layering pads and wrinkles may cause skin damage.
- Avoid containment briefs, which trap heat and moisture and progress skin damage.

Adapted with permission from an algorithm developed at Passavant Area Hospital, Jacksonville, Illinois.

Note: Product names in the algorithm are based on hospital formulary without regard to product preference or performance.

may be used along with topical corticosteroids. In complex IAD, antifungals or antibiotics may be required if a secondary

View: alginate dressings





View: foam dressings

fungal or bacterial infection is suspected.

Additional diagnostic tests may be done to identify and treat secondary infections. These tests may include skin scraping, potassium hydroxide test or Gram's stain for fungal components, or a swab culture and sensitivity for bacterial infections. If

Additional diagnostic tests may be done to identify and treat secondary infections.

your patient has a suspected secondary fungal or bacterial infection, use appropriate treatments for the full course of recommended therapy. In severe secondary fungal infection, an oral agent may be added to topical therapy. If cost is a concern, consider using a pharmacy knowledgeable about compounding for topical combination therapies.

Referrals and education

For assessment and treatment of underlying incontinence, refer the patient to a continence specialist if appropriate. Teach the patient strategies for managing incontinence through dietary measures, toileting programs, pelvic-floor muscle training, clothing modification, and mobility aids.

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Nancy Chatham is an advanced practice nurse at Passavant Physician Associates in Jacksonville, Illinois. Carrie Carls is the nursing director of advanced wound healing and hyperbaric medicine at Passavant Area Hospital in Jacksonville, Illinois.