Novel Skin Care System Helps in Healing Skin Wounds and Other Problematic Skin Disorders in Patients at Long-Term Care Facilities

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Statement of Clinical Problem

Patients at long-term care facilities (LTCFs) commonly suffer from skin wounds and other skin disorders such as fungal dermatitis, incontinence-associated dermatitis and other forms of moisture-associated skin damage, pressure ulcers (bedsores), and venous ulcers. These conditions are difficult to heal and can precipitate infections. Causes include urinary/fecal incontinence, obesity, hypothyroidism, and diabetes that, combined with patients' bedridden circumstances, can lead to continual skin maceration and exposure to infectious bacteria.

The bodily creases and recesses where these conditions occur—skin folds, perineal area, buttocks, underarms, etc.—are difficult to access and/or treat effectively. Finally, LTCFs are sometimes understaffed, so that patients may lie in their urine for excessive periods—adding to the problem.

Traditional treatment options are not always effective. Powders can cake in the presence of moisture. The intrinsic moisture in creams can contribute to the excess wetness in affected areas. The author, a nurse practitioner with a Wound, Ostomy, and Continence Certification (CWCN-AP), sought a more efficacious treatment approach.

Description of Clinical Treatment Approach

From March 2016 to the present, the author has treated these skin issues with a novel skin care system (Theraworx). The system, which includes colloidal silver (a natural antibiotic), is designed to help maintain low skin pH, thereby supporting skin cohesion and the natural antimicrobial action of the skin's outer layer (the stratum corneum). These effects help protect the skin from breakdown, disease and infection. The system is available as spray, foam and impregnated cloth wipe and does not cake like powders. Unlike creams, it adds just enough moisture to prevent dryness.

Patient Outcomes

The poster author has to date treated 10 patients with the novel formulation. All the patients had especially challenging conditions or circumstances and were not responding to traditional treatment methods. The skin condition of eight of the patients has markedly improved. Two patients died due to their debilitated state before the treatment's efficacy could be assessed.

Case Summaries

Here are three case summaries involving successful treatment with the skin care system:

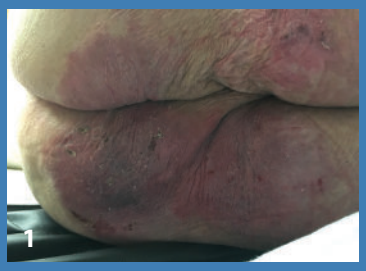
Case 1

Patient: Male, age 72, at LTCF in Fort Wayne, Ind. Bilateral amputee, non-ambulatory, diabetic (insulin dependent), atrial fibrillation (treated with blood thinner), peripheral vascular disease, chronic kidney disease (on dialysis).

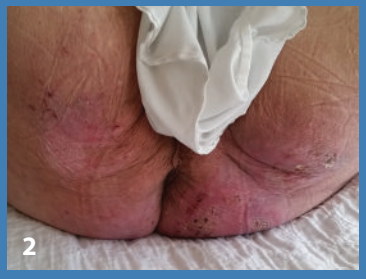
Skin Condition: Chronic dermatitis on posterior of thighs. Patient was complaining of pain and itching. Dermatitis displayed linear excoriation marks from patient scratching himself. Skin exhibited chronic deep purple discoloration.

Treatment: Dermatitis was treated for 2 ½ years—without success—with multiple barrier creams, wound gels, steroid creams, and compounded creams. All previous treatment approaches were discontinued and author began treating dermatitis with skin care system in foam form every shift and at every incontinent episode.

Results: By three weeks into treatment regimen with skin care system (foam), purple discoloration had decreased and excoriated areas were resolving. After five weeks of treatment, discoloration had disappeared, excoriation was minimal, and patient had stopped complaining of pain and itching. Regimen continues, with progress maintained, as of this writing in August 2016.



Chronic dermatitis before treatment with skin care system. Chronic deep purple discoloration, patient complaining of pain and itching, linear excoriation marks from patient scratching himself.



Progress has been maintained through three months of treatment with skin care system so regimen continues.

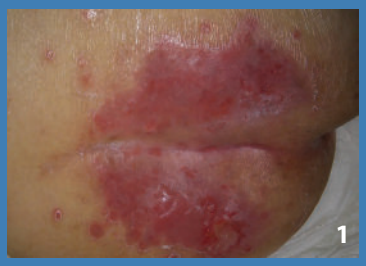
Case 2

Patient: Female, age 89, 138 lbs. at LCTF in Fort Wayne, Ind. with diabetes (130-200 labile due to inconsistent meal intake) and dementia (in locked memory unit)

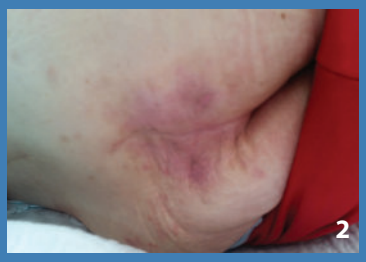
Wound: Stage 2 pressure ulcer on left buttock. Also fungal dermatitis on bilateral buttock including diffuse erythemic macular rash with satellite lesions (not measurable).

Treatment: Prior treatment with a variety of creams had been unsuccessful and was discontinued. An oral antifungal agent was ordered to help treat the dermatitis. To treat both the dermatitis and pressure ulcer, the skin care system (Theraworx foam) was applied to both buttocks every four hours due to severity of the dermatitis.

Results: Pressure ulcer measurement when treatment began was: Length = 1.8 cm, width = 1.8 cm, depth = <0.1 cm. Less than two weeks after start of treatment, the pressure ulcer had closed and the fungal dermatitis had resolved.



Stage 2 pressure ulcer on left buttock and fungal dermatitis on bilateral buttock before treatment. Length = 1.8 cm, width = 1.8 cm, depth = <0.1 cm.



Less than two weeks after start of treatment, pressure ulcer had closed and fungal dermatitis had resolved.

Case 3

Patient: Male, 62, 281 lbs. at LCTF in Fort Wayne, Ind. with Type 2 diabetes (treated with metformin), peripheral neuropathy, anoxic encephalopathy, lymphedema, bipolar. Patient is incontinent of urine; urine runs down his leg onto his wound. Does not inform staff when he has urinated on himself, removes his dressings, and refuses treatments such as compression stockings.

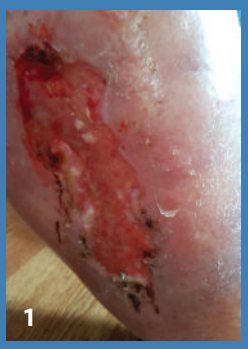
Wound: Chronic venous ulcer on right lateral lower leg.

Treatment: Wound was treated by wound clinic's personnel with silver foam and compression wraps for > 1 year without success. Beginning October 2015, author then treated the patient for approximately 6 ½ months with an antimicrobial foam dressing wrapped with gauze and elastic bandages. A collagen dressing was also attempted. Neither treatment was successful.

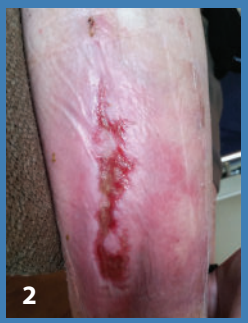
In late April 2016, author began treating the ulcer with the skin care system in spray form three times a week. Spray was allowed to dry, after which the wound was covered with a collagen dressing with bordered foam and a compression bandage.

Results: Wound measurement when Theraworx treatment began was: Length = 12 cm, width = 3.5 cm, depth = 0.1 cm. Wound bed's tissue type was 90 % pink granular with islands of epithelialization and 10 % yellow slough. Edges exhibited dried serous drainage. Periwound displayed venous stasis dermatitis.

After approximately 14 ½ weeks of the Theraworx treatment regimen, the wound size had decreased substantially: Length = 4.5 cm, width = 1.0 cm, depth = <0.1 cm. Wound bed tissue type was 100% red granular and the venous stasis dermatitis was resolved. Treatment with Theraworx continues as of this writing in August 2016.



Venous ulcer before treatment with Theraworx.



Wound size decreased substantially after approximately 14 ½ weeks of treatment with skin care system. Venous stasis dermatitis resolved. Treatment with skin care system continued.

Conclusions

While the initial sample size is very small, the system may be useful for a large proportion of patients in LTCFs, including patients for whom there are no other effective treatment solutions. Its properties enable wounds to begin healing, both mitigating and preventing infection. In addition to decreasing the size of skin wounds/disorders, it increases patient comfort due to the system's ability to increase blood flow to the area. The system may also have utility to prevent moisture-associated skin damage, a common problem for patients in LTCFs.

This approach also has potential cost advantages. It replaces multiple products, doesn't require prescription, and can be applied by a certified nursing assistant. This system should be further investigated with large patient populations at multiple facilities. If proven effective, it could have wide application for the aging patient population.

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