

DECREASING THE INCIDENCE OF SKIN TEARS IN THE EXTENDED CARE SETTING WITH THE USE OF A NEW LINE OF ADVANCED SKIN CARE PRODUCTS CONTAINING OLIVAMINE™ *

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INTRODUCTION

Maintaining skin integrity in our frail elders is an ongoing challenge deserving more attention. According to the literature review, very little conclusive evidence exists to support the use of various skin care products or treatments. Basic strategies are employed, such as clothing patients in long sleeves, the use of gentle adhesives and paper tape, judicious use of pillows and blankets in the recumbent environment, and education of staff on using a gentle hand.

As the skin ages, the basement membrane (junction of epidermis and dermis) flattens making it “loose”, thus more prone to traumatic injury and unintentional separation – in essence, a skin tear.

PROBLEM

The anatomy of aging skin makes skin tears nearly inevitable in the elderly. In addition, harsh soaps and surfactant cleansers as well as non-nutritional moisturizers and protectants containing hydrocarbons such as petrolatum and mineral oil, which do not contribute to lipid replacement, and further add to the skin’s vulnerability. It is reported that 1.5 million skin tears occur each year in institutionalized adults. Yet, state surveyors often fine the extended care facility claiming the injury was avoidable, despite prudent care. These alterations in skin integrity can additionally cause unnecessary pain and suffering to residents.

OBJECTIVE

Apply the four-pronged approach of cleansing, moisturizing, protecting and nourishing the skin with a novel advanced skin care line containing Olivamine* to create a skin care program that actually strengthens the skin and decreases the incidence of skin tears. Prior to initiating this study, the facility evaluated at least one new skin tear per day.

METHODOLOGY

In this case study, a population that was extremely prone to skin tears, seniors, was chosen to participate in a regime of cleansing with a 4-in-1 cleanser, that utilizes phospholipids, not surfactants. Cleansing was followed by a skin strengthening cream, that nourished the skin at a cellular level with Olivamine, a blend of specially treated amino acids, vitamins, methylsulfonylmethane and antioxidants. If a barrier was necessary, an Olivamine containing barrier with dimethicone and other silicones was utilized.

Previous to this study, these residents were bathed with a surfactant skin cleanser, moisturized with a well-known moisturizer and barrier was used for problem areas and those with incontinence. Approximately 100 residents were involved in this trial.

*Remedy is a registered trademark of Medline Industries, Inc., Mundelein, IL. Olivamine is a registered trademark.

†Remedy Nutrashield

‡Remedy 4-IN-1 Cleansing Lotion

§Remedy Skin Repair Cream

**Aloe Vesta Cleansing Foam, Aloe Vesta Skin Conditioner and Sensi Care are registered trademarks of ConvaTec, a Bristol-Meyers Squibb Company, Skillman, NJ

PRODUCT OVERVIEW

Olivamine™ is a blend of antioxidants, including the most potent free-radical scavenger, hydroxytyrosol (derived from olive pulp), amino acids (the main building blocks for collagen), their co-factors (vitamins A, B6, B3, C, and D3) and methylsulfonylmethane (MSM), which slows the conduction of pain fibers. The ingredients are all known to play a vital role in basic cellular construction and protection. The components of Olivamine are treated with photo acoustic resonance to reshape them into a more bioavailable form that decreases inflammation 11-fold. The products contain all natural ingredients including organic aloe vera and natural oils to nourish the skin. The cleanser is surfactant-free, (truly no-rinse technology), utilizing phospholipids as the cleansing agent, a built in moisturizer, and dimethicone. The skin strengthening cream nourishes the skin at a cellular level. The barrier contains Olivamine to nourish the skin cells. In addition, active ingredient dimethicone and six other high-quality silicones offer protection that resists wash-off, and prevents excessive transepidermal water loss (e-TEWL).

RESULTS

Once the new skin care protocol with the four-pronged approach to skin care: **Clean, Moisturize, Protect, and Nourish**, was put into place, there were only two skin tears in a six-month period. Comparing that figure to previous data, there were approximately 180 skin tears reported during a six month timeframe. It was felt that both of these skin tears were caused by excessive trauma and possibly unavoidable. This represents a substantial decline in nosocomial skin tears. Factors such as cost to treat, pain and suffering from these wounds was taken into consideration. Overall, skin appearance and turgor increased across the board.

CASE STUDY - GL

GL is an 85-year-old white female who was admitted to the ECF on 11-14-01 with diagnoses of NIDDM, HTN and peripheral neuropathy. She has a long-standing history of numerous leg ulcers and skin tears on lower extremities, often due to her crawling back to bed from her wheelchair. Significant lab values include albumin of 4.0, WBC of 9.4 and H/H 9.9 and 31.1. She is incontinent of urine and wears adult briefs. Her Braden score is 19.

GL at start of Olivamine* skin care regime



GL after approximately 2 weeks of treatment



CASE STUDY – LF

LF is a 78-year-old female diagnosed with hypothyroidism, poor appetite, rheumatoid arthritis with decreased mobility, neuropathy of left leg, depression, HTN, COPD who suffered a CVA in 2000. She presents with an open area on the L buttocks and is on complete bed rest (waffle mattress overlay), not able to turn or reposition without assist. Her Braden score is 15, and her significant lab values include: Albumin 3.1, WBC 8.1, H/H 15.1 and 44.9.

LF with an open area on her left buttocks, start of treatment



LF, approximately 3 weeks of treatment



CASE STUDY – GM

A 95-year-old white female, GM, was admitted to the ECF on 1-8-04 with a diagnosis of pneumonia and C-difficile diarrhea. She also suffers with ASHD, CAD, hyperlipidemia and history of CABG x 3 in 1994. She had a Braden score of 14 on admission with bruising to both the upper and lower extremities, tissue paper thin skin, reddened buttocks with no open areas, and her ankles were edematous. Her labs include: Albumin 2.5, WBC 15.6, H/H 11.0 and 32.7.



After only 13 days of advanced skin care treatment with Olivamine containing products



CASE STUDY – KL

KL is an 82-year-old white female who was admitted to the ECF on 2-18-02 diagnosed with HTN, CAD, elevated cholesterol, SOB and a history of myocardial infarction. She has occasional urinary incontinence at night and ambulates with assist of one caregiver. Her braden score is 16, and her significant labs are: Albumin 3.8, WBC 6.5, H/H 12.8 and 37.2.

KL, start of treatment



KL, after approximately 1 month of the new advanced skin care regime



COST ANALYSIS

The following tables represent national average costs for the previous skin care regime, including skin tear treatment twice per week and the study regime based on total body skin care.

Previous Skin Care (Daily)	Cost per application	Average cost of care per week
Aloe Vesta 3-in-1 Cleansing Foam	\$.19	\$1.33
Aloe Vesta Skin Conditioner	\$.05	\$.35
Sensi Care Protective Barrier	\$.21	\$1.47
	\$.45	\$3.15

Current Skin Tear Treatment (2 times/week)

Wound closure strips (2 per wound)	\$.50	\$1.00
Transparent dressing	\$.75	\$1.50
Dressing change(10 min), licensed nurse (\$20/hr)	\$3.33	\$6.66
	\$4.58	\$9.16

Total Weekly cost \$12.31

Study Skin Care (Daily)	Cost per application	Average cost of care per week
Remedy 4-in-1 Skin Cleansing Lotion	\$.24	\$1.68
Remedy Skin Repair Cream	\$.08	\$.56
Remedy Nutrashield	\$.10	\$.70
	\$.42	\$2.94

The new skin care regime represents a cost savings of \$ 9.37 per week vs. treatment regime. This cost savings does not account for the fact that the majority of study residents were treated with the 4-in-1 skin cleansing lotion and either the skin strengthening cream or the dimethicone/silicones barrier, but not both.

CONCLUSIONS

The facility has completed a cost-analysis projection to present to its administration for adoption of these products. Choosing an advanced skin care regimen with Olivamine™ containing products is fiscally responsible not only considering overall costs but also staving off potential citations from surveyors for nosocomial acquired skin tears. An added benefit is providing comfort, empowerment to both the staff and patients and good customer service.

REFERENCES

- Baranoski S, Ayello E. 2004. Wound Care Essentials Practice Principles. Lippincott. Philadelphia, PA, 52-58, 191
- Bryant R. 2000. Acute and Chronic Wounds nursing Management, Second Edition. Mosby, St. Louis, MO, 8-11.
- Fleck CA, McCord D. The Dawn of Advanced Skin Care, *ECPN*, September/October 2004, 32-39.
- Fleck CA, McCord D. Care and Feeding of the Body's Largest Organ. *ECPN*, July/August 2004, 28-31.
- Fleck CA. More than Skin Deep: Bringing Advanced Skin Care to the Home Health Patient. *Home Care Product News*. October, 2003, 20-22.
- Maklebust J, Siegreen M. 2001. Pressure Ulcers Guidelines for Prevention and Management, Third Edition. Springhouse Corporation, Springhouse, PA, 10-11.
- Ovokaitys T, McCord, D. Eleven Fold Reduction in Irritation Associated with the use of Amino Acids Using Patented Laser Electromagnetic Resonance Technology. Presented at the Symposium on Advances in Skin and Wound Care, Orlando, Florida, 2004.
- Sussman, C, Bates-Jensen B. 1998. Wound Care a Collaborative Practice Manual for Physical Therapist and Nurses. Aspen Publication. Gaithersburg, MD, 57-58, 221-222.