INTRODUCTION

Introduction results from excess moisture and skin-to-skin friction occurring in natural skin folds, such as those found in the groin, under breasts, legs, neck, and arms. When left unattended, conditions such as secondary bacterial, fungal, or yeast infections can occur, often leading to chronic medical conditions. In the past, conditions such as dermatitis, eczema, seborrhea, and candidiasis were typically treated with antifungal powders, topical antifungal ointments, and systemic antifungal agents. However, with the discovery of new technologies and materials, new solutions are emerging.

PURPOSE

The purpose of this study was to determine the efficacy of a new knitted textile with silver for the treatment of skin conditions located in skin folds.

PRIMAR Y OBJECTIVE

To measure the reduction of odor by various means.

SECON DARY OBJECTIVES

1. To monitor the effect on: a. Maceration b. Denudement using a binomial scale (yes, no).
2. To monitor the effect on: a. Itching/burning using a binomial scale (yes, no) and,
   b. Odor detection threshold using a tape measure to measure the distance where the odor is initially noticeable.
3. To measure the reduction of erythema using a 4-point ordinal scale with the following descriptors.
   a. Closed odor
   b. Open odor
   c. Moderate (noticeable but tolerable)
   d. Minimal (scarcely noticeable)
4. To monitor the effect the knitted textile with silver has on: a. Physical appearance (e.g., appearance of insulation, absorbency, etc.) b. Patient comfort

METHODOLOGY

Thirty-eight (38) subjects were screened for the study. Twenty-one (21) subjects participated in the study. Twenty (20) subjects completed the study. One (1) subject withdrew from the study due to personal reasons. The subjects were divided into four (4) groups for the study:

- Group 1: Control Group
- Group 2: Knitted Textile Group
- Group 3: Antifungal Powder Group
- Group 4: Antifungal Ointment Group

RESULTS

Fifteen (15) out of twenty-one (21) subjects had a statistically significant improvement in odor by Day 3 (p = .0020) and (p = .0034) by Day 5. There was a statistically significant reduction in separated odor (p = .0020) by Day 3 and (p = .0034) by Day 5. All of the subjects were entered into the study with erythema. There was a statistically significant reduction in separated odor (p = .0020) by Day 3 and (p = .0034) by Day 5. The textile was soiled with urine and left in place.

Table 1: n = 21

<table>
<thead>
<tr>
<th>Skin Assessment</th>
<th>Case Study 002</th>
<th>Case Study 003</th>
<th>Case Study 004</th>
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<td>Cleanse the skin with a no rinse cleanser daily. Place the new wicking, knitted, textile with silver in place under wrap. Textile in place.</td>
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CASE STUDY 002

This is a 31-year-old female Caucasian resident residing in rehabilitation (physical therapy and occupational therapy) with morbid obesity (BMI 58.3). Other diagnosis includes cellulitis bilateral lower extremities with infection, chronic obstructive pulmonary disease, morbid obesity, and lymphedema and chronic pain. This is a 34-year-old Caucasian female resident receiving rehabilitation (weight loss and physical therapy) with morbid obesity (BMI 61.1). Other diagnosis includes cellulitis bilateral lower extremities with infection, chronic obstructive pulmonary disease, elephantiasis vs. lymphedema and chronic pain.

CASE STUDY 003

This is a 34-year-old Caucasian female resident residing in rehabilitation (physical therapy and occupational therapy) with morbid obesity (BMI 61.5). He was unable to ambulate on his own after a hospital stay for dyspnea and prostate cancer. This is a 70-year-old Caucasian male resident receiving rehabilitation (weight loss and physical therapy) with morbid obesity (BMI 61.5). Other diagnosis includes cellulitis bilateral lower extremities with infection, chronic obstructive pulmonary disease, morbid obesity, and lymphedema and chronic pain.

CASE STUDY 004

This is a 34-year-old Caucasian female resident residing in rehabilitation (physical therapy and occupational therapy) with morbid obesity (BMI 61.5). Other diagnosis includes cellulitis bilateral lower extremities with infection, chronic obstructive pulmonary disease, morbid obesity, and lymphedema and chronic pain.

CONCLUSION

The results of this clinical trial with silver provide evidence to refine the subjects symptoms of itching and/or candida infection in a new regulated. The new knitted textile with silver shows promise in the treatment of conditions such as dermatitis, eczema, seborrhea, and candidiasis. The study results support the need for further research in this area.

PRODUCT NOTATION

2. Adam Reich, M.D., Wroclaw Medical University, Wroclaw, Poland. Skin and Wound Infections: An Overview specid=33 May 12/vol18/no35/2004 nursing standard 39
3. Michael L. O’Dell, M.D., University of Texas Medical Branch at Galveston, Galveston, Texas. (1998), Skin and Wound Infections: An Overview specid=33 May 12/vol18/no35/2000 nursing standard 39

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CASE STUDY 005

This is a 34-year-old Caucasian male resident residing in rehabilitation (physical therapy and occupational therapy) with morbid obesity (BMI 61.5). He was unable to ambulate on his own after a hospital stay for dyspnea and prostate cancer. The current skin care protocol includes daily body wash followed by antifungal ointment. The subjects appreciated the new knitted textile with silver.

CASE STUDY 006

This is a 34-year-old Caucasian female resident residing in rehabilitation (physical therapy and occupational therapy) with morbid obesity (BMI 61.5). Other diagnosis includes cellulitis bilateral lower extremities with infection, chronic obstructive pulmonary disease, morbid obesity, and lymphedema and chronic pain.

STUDY SKIN CARE PROTOCOL

Cleanse the skin with a no rinse cleanser daily. Place the new wicking, knitted, textile with silver in place under wrap. Textile in place.