Investigation of the Effects of Consumer Market Lotions versus Professional Grade Lotions in Combination with Alcohol Hand Antiseptics: A Comparative Study of Skin Health Effects and Glove Compatibility

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BACKGROUND/OBJECTIVES

Hand hygiene is a significant determinant of healthcare quality, especially for healthcare workers who rely on the essential barrier to infection. Skin that is compromised makes it more likely that microorganisms and other products are transmitted to the patient during the procedure. In this study, we compared the effects of consumer market lotions versus professional grade lotions in combination with alcohol hand antiseptics (NAFHS) on skin barrier integrity and glove compatibility.

METHODS

Test Procedures:

- Test articles were rubbed onto test sites for approximately 30 sec. or until dry.
- NAFHS treatment was repeated after 8-15 minute drying period.
- Test articles quantities and application:
  - NAFHS: The dispensing device was placed over the test site.
  - Lotion: A drop dispensed directly onto the finger cot.
- Application: Test articles were applied twice daily for up to 5 days, twice daily on each hand, 3 times daily for 5 days per test article. Test articles were applied to non-irritated skin areas of the back of the hand.

Dermatological Compatibility Testing:

- Erythema and Dryness: Assessments were performed twice daily for 5 days.
- Test article was applied to the back of the hand.
- Results were documented for both latex and nitrile gloves.

RESULTS

The Professional Healthcare Lotion and some of the consumer market lotions showed good compatibility with both the latex and nitrile gloves (see photos). Some of the consumer lotions, particularly two of the Bath & Body Works products, compromised patient care. While most products in the consumer market are quality products, this study shows that compromised patient care can be caused by the use of some of these products.

CONCLUSIONS:

The results of the study indicate that consumer market lotions can show beneficial effects on skin condition, for healthcare settings, and for the healthcare workers who are supplied with products that have been evaluated and demonstrated glove and CHG compatibility, in addition to improving skin condition.