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Best Practices for Healthy Skin

INTRODUCTION

Hand hygiene is a critical aspect of patient safety. According to the Centers for Disease Control and Prevention (CDC), it is the single most important measure one can take to prevent the transmission of pathogens.¹ Healthcare workers (HCW) are repeatedly exposed to hand hygiene products, placing them at risk for skin damage. And despite alcohol-based hand rubs' (ABHR) widespread availability in healthcare facilities for several decades, there is still belief among HCW that ABHR is more damaging to the skin than soap and water for hand hygiene, despite the abundance of evidence to the contrary. It is essential that HCW understand how to appropriately use hand hygiene products to maintain their skin health.

HAND HYGIENE REGIMENS AND THEIR EFFECT ON SKIN HEALTH

Irritant contact dermatitis is a common skin reaction related to hand hygiene. Symptoms can include dryness, redness, irritation, itching, cracking, swelling, and bleeding. In one study, 85% of nurses reported a history of irritant contact dermatitis, and 25% reported dermatitis symptoms.² Studies have shown that alcohol has very little impact on the stratum corneum, or the outermost layer of the skin; however, hand washes, which are mixtures of detergents, surfactants and antiseptic agents, can have considerable effects on the skin's barrier.³ Hand washing has been shown to result in stinging, burning, pruritus, dryness, and scaling.^{4,5} Even though it may be the source of the problem, hand washing can be perceived as soothing. ABHR can elicit symptoms that are an indicator of the problem, such as stinging or burning, when the skin is already damaged and specific nerve receptors are activated. Because there is less of a sensorial response to hand washing, HCW's response to the pain felt when using an ABHR is to continue the cycle of hand washing, thereby exacerbating the problem. The opportunity, therefore, is to maintain and repair the skin's barrier and not expose the nerves to begin with. By primarily using ABHR, minimizing exposure to soap and water, and using supplementary lotion, HCW can help prevent the cycle of skin damage.

OTHER FACTORS THAT AFFECT SKIN HEALTH

Besides hand hygiene regimens, there are other external factors that can have a negative effect on skin health. Low relative humidity, especially in winter months, can contribute to dermatitis.⁶ In addition, switching hand hygiene products can sometimes cause a temporary dermatitis while the skin adjusts to the new product. This is usually transient, lasting several weeks. HCW need to be aware of these factors, avoid heavy use of soap and water, use ABHR as the primary method for performing hand hygiene, and use supplementary lotion more frequently.

WHEN TO SANITIZE YOUR HANDS WITH AN ABHR

If hands are not visibly soiled, the CDC and the World Health Organization (WHO) recommend using an ABHR in the following clinical situations:

- Before direct patient contact
- After removing gloves
- Before handling an invasive device for insertion
- After contact with intact skin
- After contact with body fluids, or excretions, mucous membranes, non-intact skin, and wound dressings, if hands are not visibly soiled
- Before moving from contaminated patient body site to a clean site during patient care
- After contact with inanimate objects or medical equipment close to a patient

WHEN TO WASH YOUR HANDS WITH SOAP AND WATER

When hands are visibly dirty or contaminated with proteinaceous material, are visibly soiled with blood or other body fluids, and before eating and after using the restroom, wash hands with either a non-antimicrobial soap and water or an antimicrobial soap and water.

TECHNIQUE FOR PERFORMING HAND HYGIENE

The CDC recommends when using an ABHR, apply product to the palm of one hand and rub hands together, covering all surfaces of hands and fingers until hands are dry. The product should take at least 15 second to dry. When using soap and water, wet hands with water, apply the manufacturer's recommended amount of product to hands, and rub hands together vigorously for at least 15 seconds, covering all surfaces of the hands and fingers. Rinse hands with water and dry thoroughly with a disposable towel. Use towel to turn off the faucet.

BREAKING THE CYCLE OF SKIN DAMAGE

Simple changes in your hand hygiene routine can make a difference when it comes to skin health. Here are some tips to keep your hands healthy year round.

- Use an ABHR as opposed to soap and water whenever possible.
- Use lukewarm (not hot) water when washing hands with soap and water.
- Use lotion at least twice during your shift and use copious amounts of lotion before and after your shift.
- Do not don gloves when your hands are still wet with ABHR. This prevents the alcohol from completely drying and can cause burning or stinging, especially when skin is already damaged.
- Do not vigorously dry your hands with a paper towel; pat gently.
- Wear gloves when going outside if you live in a cold, dry climate.

SOURCES

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