



Prevention of Skin Infections and Their Spread in Wrestling

INTRODUCTION

Wrestling is a contact sport where skin infections occur from direct transfer from participants, their gear, and environmental surfaces they compete on. Few statistically based studies have been done on the sources, transfer routes, or control of the pathogens involved, but hygienic practices have been developed based upon a mass of anecdotal studies and the common sense of hygienic practices and infection control.

As a general theory, the goal of hygienic practices aimed at controlling skin infections and their spread centers are based on two basic principles. First, deduce the dose of organisms that might be problematic. Second, control the routes of transfer of such organisms.

Akin to the rational used for the reduction of dose of fungal contaminants associated with Tinea captis by the use of antifungal shampoos, or the use of disinfectants or cleaners to reduce microbial contamination on surfaces; the use of long lasting antimicrobial coatings that do not encourage microbial adaptation, irritation or sensitization of the skin, allow for easier cleaning, and do not harm the surfaces that are treated has value as part of a total hygiene program.

A program was put into place to reduce the potential for infectious skin disease control using the SportsAide®1000 and FabricAide™ antimicrobial treatments from CSG/SportsCoatings as part of a total hygiene program. Results from this study were to be monitored with microbial retrievals and tracking of wrestlers skin infections.

From this work the following recommendations and observations are presented:

Recommendations:

General:

- ALL wrestlers should be screened on a weekly basis by a certified athletic trainer of team physician for any sign of skin infection
- ALL wrestlers found to have a skin infection should be promptly evaluated by a PHYSICIAN for appropriate treatment and guidance on return to competition. Many infections can be treated with over-the counter medications, however, an accurate diagnosis is vital prior to starting any treatment.
- ALL wrestlers should shower immediately after practice using the school's facilities.

24 HOUR ATHLETIC INJURY HOTLINE 610-685-7200

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- ALL wrestlers should have their practice clothes and school singlets laundered on a regular basis, ideally on campus if possible to assure that it is being done.

Prophylaxis:

- Data exist to support the use of anti-viral medication for prophylaxis during herpes outbreak or in a wrestler that is “prone” to herpes skin infections
- Data in our study from 2000 supports the use of fluconazole weekly for prevention of ringworm if there is an outbreak.
- Data from our study in 2001 showed that scalp ringworm carriers are prevalent in wrestling. Common sense would support the use of antifungal shampoo to help eradicate the carrier states. To my knowledge there has not been research showing this to be effective, but theoretically it should help.
- We are well aware of the carrier situation becoming more prevalent with MRSA. The use of regular body soap should eradicate this bacterium if present. Data does exist to support the use of Hibiclens® as a body wash since it has longer killing power.

Equipment:

- Wrestlers should not share clothing, towels, or headgear. Towels should be laundered as recommended above for clothing. Other preventative measures are recommended. In a study performed this past year with FabricAide™, a product manufactured by CSG/SportsCoatings, data showed that there were significantly fewer skin ailments during the wrestling season in the schools that FabricAide™ was used to launder the wrestlers practice gear and competition singlets.
- Mats should be cleaned daily using a quaternary amine based solution. Ideally, the mats should be cleaned prior to practice and immediately after practice or matches. School janitorial personnel ideally should be responsible for the cleaning. Mat cleaning by wrestlers should be discouraged. It is imperative that proper technique is used to achieve the best results. The use of a bucketless mop with washable replaceable pads provides an effective cleaning application, and minimizes cross contamination across the mat surface.
- Storage of mats is a matter that has not been studied. I cannot make a clear recommendation whether storing mats in rolled position increases, decreases, or has no effect upon infection rates.

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Use of antimicrobial coatings was studied this past year using CSG/SportsCoatings SportsAide® 1000 on wrestling mats in which the control mats (untreated mats) were cleaned on a daily basis as part of the routine at the particular schools. Preliminary results have shown SportsAide® 1000 seemed to have provided a layer of protection above and beyond the cleaning of the mats alone. Sampling results revealed MRSA was isolated from two control mats that had not been treated with SportsAide® 1000, as well as the only ringworm fungus found in the study. The antimicrobial coating does not preclude cleaning, but augments it as a prevention tactic.

It is important to note that the recommendations and observations garnered from one season of measurements demonstrates the following: The use of good monitoring practices and prophylaxis with SportsCoatings products and programs for wrestlers, staff, gear, equipment, and the facility are showing value in reducing problematic microorganisms in the wrestling environment and incidence rates of skin infections.

We hope to continue the study further in an effort to gain more data on the use of antimicrobial coatings.

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