



HERPES GLADIATORUM

STEMMING THE TIDE IN HIGH SCHOOL WRESTLERS

Herpes Gladiatorum is a viral infection caused by Herpes Simplex Type-1 (HSV-1) that accounts for >40% of all skin infections in college wrestlers, many who acquired the infection while wrestling in high school. It's an extremely contagious virus with a 30% chance of developing the skin infection once an outbreak occurs on a team. While 30% of high school wrestlers potentially harbor the virus, only 10% of these individuals know they have it. This makes it very difficult to control the infection during the close physical contact that occurs during the wrestling season. With lifelong consequences, it makes addressing this infection a difficult problem.

New research recently published in the Clinical Journal of Sports Medicine (Anderson BJ 2015) shows that valacyclovir may be effective in preventing and reducing the risk of acquiring primary herpes gladiatorum. This study analyzed valacyclovir usage at a 28-day summer wrestling camp for high school wrestlers over a 10 year period. All 2,793 athletes were encouraged to take a valacyclovir 1000 mg tablet daily starting 5 days before camp and continuing through the entire 28 day session whether they had herpes or not. With over 70% of the camp attendees using valacyclovir, the infection rate dropped 89.5% implying it is possible to prevent acquiring herpes in this intense wrestling setting.

Using antiviral medications is in the forefront of Herpes Gladiatorum incidence reduction in the sport of wrestling. The close contact of wrestling practice and competition, the geometric spread of an outbreak, and virus shedding from an asymptomatic infected athlete can lead to outbreaks that can spread like wildfire infecting an entire team within 2-3 weeks. An initial herpes infection requires 10-14 days to clear with or without antiviral medication due to the systemic nature of the first time outbreak. Untreated and not quarantined, transmission from a single infected wrestler can shut down a team in 2-3 weeks. The head, face and neck are involved in >70% of Herpes Gladiatorum, and the biggest concern is the potential to infect the cornea of the eye, which can lead to blindness.

As with cold sores, also caused by HSV-1, reoccurrence is the rule, not the exception. Recurrent lesions are brought on by the stress of cutting weight, skin rubbing during contact, and/or school or personal issues. Individual outbreaks can occur several times throughout a season. An infection that takes up to 2 weeks to clear, especially with multiple outbreaks, can severely curtail the season for an affected athlete. Recurrent outbreaks require 120 hours of treatment before the athlete can return to practice/competition.

Treatment of herpes in wrestlers is different than for the traditional use in the general population. ***Non wrestlers use antiviral medication to treat symptoms, but in wrestlers treatment focuses on clearing the virus to reduce transmission to opponents.*** Research clearly shows that more than 24-72 hours of antiviral medication use is required to clear the wrestler of active virus in recurrent outbreaks and 10-14 days of treatment are required in primary outbreaks.

The commonly used oral antiviral medications are valacyclovir, famcyclovir or acyclovir. They work by interrupting viral replication, allowing the outbreak to clear more quickly. Valacyclovir and famcyclovir may be used twice a day for outbreaks and once-daily for prevention. Acyclovir requires 3 to 5 times a day dosing, which reduces compliance and as a result effectiveness. Studies show valacyclovir can reduce recurrent outbreaks by up to 83%. Infected wrestlers who are not on prophylaxis are 2.4 times more likely to have an outbreak during the season.

Treatment and prevention guidelines are outlined in the accompanying table. Key times for prophylactic use of antivirals are during team outbreaks and near the end of a season when unknowing exposure at a conference championship can lead to an outbreak before the Section and State Tournaments. These are also critical times for infected athletes to use prophylactic medication as the use may prevent catastrophic outbreaks and allow them to compete in the end of season meets leading to the State Championships.

Using Valacyclovir for Treatment of Herpes Gladiatorum in Wrestling

	PRIMARY	RECURRENT
Treatment	1 GM twice daily for 7-10 days	500mg twice daily for 7 days
Prophylaxis*		
History < 2 years	1 GM once daily	
History > 2 years	500 mg once daily	

* Should be started 5 days before season begins. If outbreaks occur while on 500mg daily, then increase to 1GM daily.

When to Use Valacyclovir for Prevention of Herpes Gladiatorum

Athlete/coach has history of cold sores/ Herpes Gladiatorum	Valacyclovir 1GM once a day (500mg once a day if greater than 2 year history of herpes)*
When 2 or more weight classes on one team have an outbreak	Shutdown practice/competition for 8 days and place all wrestlers on Valacyclovir 1GM twice a day for 2 weeks
Before conference and State championships	Valacyclovir 1GM once a day for Conference and State entrants (To be started 5 days before championships)

* If outbreaks occur on 500mg once a day, increase to 1GM once a day.