

Anti-viral prophylaxis for Herpes Gladiatorum

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A viral infection caused by Herpes Simplex Type-1 (HSV-1) that accounts for >40% of all skin infections a wrestler has in collegiate activity. It's an extremely contagious virus with 30% chance of contraction once an outbreak occurs on a team. With 30% of high school wrestlers potentially having the virus, only 10% of these individuals know they have it. This makes control a difficult issue. With lifelong consequences, it makes addressing this infection a difficult problem. Taking anywhere from 10-14 days to clear, it can shut down a team in 2-3 weeks. With head, face and neck involved in >70% of outbreaks, the biggest concern is potential eye involvement. Rare, yet if it does occur can have serious consequences for the athlete. As with cold sores, also caused by HSV-1, reoccurrence is the rule, not the exception. Brought on by stress of; cutting weight, rubbing, stress related to school or personal issues, outbreaks can occur multiple times throughout the season. With up to 2 weeks to clear, it's obvious that with multiple outbreaks, a season can be severely curtailed for an infected athlete. Due to the nature of how wrestlers practice, geometric spread and transmission of an outbreak is obvious. Furthermore, consider that the virus can be shedding from an infected athlete without them having an actual outbreak and you can see why some of these outbreaks can spread like wildfire causing a whole team to get infected within 2-3 weeks.

With herpes, treatment requires: 10-14 days with a first time outbreak, due to the extensive nature of its development and time to clear. Recurrent outbreaks require 120 hours of treatment before return to practice/competition. Treatment of herpes in this venue is different than for traditional usage. **Non wrestlers use antiviral medication to treat symptoms, but in this venue treatment focuses on clearance of the virus to prevent/reduce transmission to opponents.** Research clearly shows that with the use of antiviral medication, clearance of the virus needs more than 24-72 hours with recurrent outbreaks. Primary outbreaks require up to 10-14 days of treatment until clearance.

Treatment should be with oral antiviral medications: Valacyclovir, famciclovir or acyclovir. They work by thwarting viral replication and allowing the outbreak to clear more quickly. But due to the effectiveness and easy of dosing parameters, the use of acyclovir has been in disfavor. Valacyclovir and famciclovir may be used twice a day for outbreaks and once-daily for prevention. Studies have been done showing the use of valacyclovir to reduce recurrent outbreaks up to 83%. Infected wrestlers are 2.4 times more likely to have an outbreak if not on prophylaxis. Whereas acyclovir is effective, it's dosing parameters of three or more times a day has been difficult to follow for these athletes.

<u>Using Valacyclovir for Treatment of Herpes Gladiatorum in wrestling</u>		
	Primary	Recurrent
Treatment	1 GM twice daily for 7-10 days	500mg twice daily for 7 days
Prophylaxis*		
History < 2 years	1GM once daily	
History >2 years	500mg once daily	

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

New research also shows that valacyclovir may be effective in preventing/reducing the risk of acquiring primary herpes gladiatorum. A study recently published in the [Clinical Journal of Sports Medicine](#) analyzed Valacyclovir usage at a 28-day wrestling camp for high school wrestlers. Over the 10 years of monitoring, all 2,793 athletes were strongly recommended to be on valacyclovir 1GM a day regardless if they had herpes or not. Its usage resulted in a drop in infection rate of 89.5%. ***With >70% of the camp using valacyclovir, it implies possible prevention in acquiring herpes in this setting.***

Usage of antiviral medication has now come to the forefront in reduction and prevention of acquiring Herpes Gladiatorum in the sport of wrestling. Treatment and prevention guidelines are outlined in this table. Other key times of usage are also as important such as when a team has a major outbreak or towards the end of a season when unknowing exposure at a conference championship can lead to an outbreak before State tournament. During these times limited usage for these athletes may prevent catastrophic outbreaks and allow them to compete in their State Championships.

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 once 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

For summer camps, HG is a huge problem. Recommendations are to use Valacyclovir 1 GM daily, starting 5 days before camp starts and continue until its completion. Note that all recommendations listed above are at the discretion of the athlete, parent/guardian and his/her physician. Also note that these recommendations are for athletes 13 years of age and older.

The use of medication focuses on limited usage to allow the athletes to compete and prevent spreading the virus to susceptible individuals. Hopefully these guidelines will ensure the safety of all athletes and allow everyone to compete.