

The importance of authorized medication as a risk factor for fatalities in Thoroughbred racing

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The aim of this study was to identify risk factors associated with equine fatalities & musculoskeletal injuries (MSI) at two racecourses from one of OSAF's countries. To the best of the author's knowledge this is the first time that a variable relating to authorized medication in certain races has been included in this type of study. Authorized medication racing policies have changed during the past few years in South America. There are many races in which the use of fenilbutazone and furosemide is forbidden, but there are still some races in which either or both medications are permitted.

Our analysis was based on approximately 300,000 race starts provided by two of the four official racecourses in that country between 2006 and 2015. Logistic regression was used to identify variables associated with two outcomes: fatalities and MSI. All available variables were examined at the univariable level, and a final multivariable model was developed to identify multiple risk factors.

A number of risk factors related to the horse and its racing history; the race; and declared authorized medication were identified as being associated with one or both outcomes of interest. For example, a horse that was declared to run under furosemide and fenilbutazone was more likely to sustain a fatality than a horse declared to run only with furosemide or with no medication at all. And longer races were associated with an increased risk of both MSI and fatalities.

We believe that this is the first study to clearly demonstrate the relationship between medication regulations and equine welfare. These results may encourage new medication policies, that seek to optimize welfare in Thoroughbred racing in South America.