

PROJECT REVIEW

"Impact of intense exercise on pharmacokinetics and pharmacodynamics of budesonide and methylprednisolone in relation to doping analysis"

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Project Summary

Glucocorticoids are widely used among athletes in treatment of acute inflammation and in chronic inflammatory diseases such as asthma. However, glucocorticoids may be misused to increase recovery and performance during competition, and several former Tour de France cyclists have admitted use of glucocorticoids as performance-enhancing agents during races. The current prohibited list allows glucocorticoids to be applied as a skin cream or inhaled from an inhalator, whereas injections and intake of pills are prohibited. In order to distinguish between prohibited misuse and therapeutic use, and to establish urinary thresholds, it is necessary to investigate differences in urine concentrations between the different administration forms. The aim of the current study is thus to investigate differences in the urine concentration of the two most common glucocorticoids following different routes of administration during exercise.