

Study points to the futility of urine tests for salbutamol doping

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Salbutamol, also known as albuterol, is a medication that opens up constricted medium and large airways in the lungs and is often used to treat asthma. Because high doses are suspected by some to also have an anabolic effect, its daily dosage is restricted by the World Anti-Doping Agency, which uses urine tests to determine violations. A new *British Journal of Clinical Pharmacology* study shows that large variability in urine concentrations, however, lead to infeasibility of determining an administered dose from a single untimed urine sample.

The authors noted that the current threshold inadvertently leads to incorrect assumptions of violation, whereas many violations will go unnoticed, especially when samples are taken long after drug administration. These issues, combined with the dubious assertion of its anabolic effect, indicate that the large effort involved in testing should be reconsidered.

"Using available pharmacological knowledge, we demonstrate that the current approach to detect excessive salbutamol use is fundamentally flawed and cannot differentiate between illegal and allowed use," said co-author Jules Heuberger, of the Centre for Human Drug Research, in Leiden, The Netherlands. "If the doping community is determined to control for excessive salbutamol use, these procedures should be changed, ideally in collaboration with clinical pharmacologists."

More information: Jules A.A.C. Heuberger et al. Futility of current urine salbutamol doping control, *British Journal of Clinical*

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