PROJECT REVIEW

"Is tramadol a Performance Enhancing Drug?"

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Tramadol is potent narcotic analgesic that acts on the opioid system. Data from the WADA Monitoring Programme and from athlete testimonies suggest that this drug is used across multiple sports in order to reduce exertional pain and allow the athlete to work even harder. In doing so, it is likely that tramadol is being used to provide the athlete with a performance advantage. However, there is currently no convincing research evidence to support or reject whether tramadol is performance enhancing in highly trained, healthy athletes. This project will employ an experimental design that focuses purely on the question of whether tramadol allows athletes to work harder by reducing pain, and thus allow for a better performance. Therefore, the main outcome of this project will be to provide robust experimental evidence to inform whether the use of tramadol in competition should be regulated. Thirty highly trained road racing cyclists will be recruited for this study, as the efficacy of performance enhancing interventions vary according to athletic ability. In a randomized, controlled, double-blinded crossover design, these cyclists will complete a laboratory cycling task that replicates the time/intensity demands of professional road cycling following the ingestion of tramadol or a placebo. The cycling task will involve fixed intensity and self-paced time trial cycling, amounting to approximately 1.5 hours of hard cycling. The intensity/time of the task is critical, as the ergogenic effects of tramadol are likely to be reduced in shorter duration exercise that induces less fatigue, and is therefore not representative of the context in which it is purportedly taken. Exercise performance (completion time) and perceptual responses (perceived pain and effort) will be compared between conditions, with results used to inform consultation with WADA regarding the S7 Narcotics category of the Prohibited List.