The World Anti-Doping Agency wishes to draw the attention of the Laboratories to the following issue that may affect Laboratory operations. This pertains, in particular, to the possible detection of the prohibited narcotic oxymorphone in urine Samples due to the decomposition of the permitted drug methylnaltrexone (MTNX), a peripherally acting μ-opioid antagonist that reverses some of the side effects of opioid drugs without affecting analgesia.

Oxymorphone may be formed in situ as a degradation artifact of MTNX after thermolysis in the Gas Chromatograph inlet or as a side reaction of the per-TMS derivatization under GC-MS analysis conditions. The procedures based on the detection of oxymorphone and its Metabolites by LC-MS are not affected, as MTNX degradation is not observed under electrospray conditions.

Therefore, whenever a Laboratory detects oxymorphone in urine by GC-MS, an additional test for the presence of noroxymorphone (a minor but expected Metabolite of oxymorphone) shall be applied to the Sample. Alternatively, the absence of MTNX may be documented by analyzing the Sample by LC-MS before issuing a Test Report¹.

Should you have any further questions, please do not hesitate to contact the WADA Science Department for further information.