OXETHAZAINE

1.0 Introduction

WADA wishes to draw the attention of the Laboratories to the possible detection of the Prohibited Substances Phentermine and Mephentermine in urine Samples, which may be found as minor Metabolites of the permitted drug Oxethazaine (Mucaine®, Stoin), a topical anaesthetic prescribed for the treatment of acute and chronic gastritis and duodenitis [1].

Following the administration of oxethazaine, its major Metabolites β-hydroxyphentermine and β-hydroxymephentermine (Figure 1) [1] are detected in much higher concentrations than phentermine and/or mephentermine.

![Figure 1 Metabolism of oxethazaine](adapted from Sigmund et al. [1]).

2.0 Analysis and Reporting Requirements

It is recommended that prior to reporting a result for phentermine and/or mephentermine as an Adverse Analytical Finding (AAF), Laboratories take appropriate steps to evaluate whether the finding is the result of the permitted administration of oxethazaine:

i. Check the Sample Doping Control Form (DCF) for a declaration of use of oxethazaine;

ii. Whenever a Laboratory detects phentermine and/or mephentermine in an Initial Testing Procedure (ITP) of a urine Sample, an additional test for the presence of oxethazaine major Metabolites, namely β-hydroxyphentermine and β-hydroxymephentermine, shall be included in the Confirmation Procedure (CP);

iii. Report the result as a Negative Finding if these Metabolites of oxethazaine are detected in higher concentrations than phentermine and/or mephentermine;

iv. Report the result as an AAF for phentermine and/or mephentermine, as applicable, when neither of these two oxethazaine Metabolite(s) are detected in the Sample, or when otherwise the Laboratory concludes that the concentration of phentermine and/or mephentermine in the Sample, respectively, is not consistent with the administration of
oxethazaine (e.g. concentration of phentermine and/or mephentermine higher than (> that of oxethazaine Metabolites).

3.0 References