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Written by:	WADA Science	Approved by:	WADA Executive Committee
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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** (Mucaïne[®], 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.

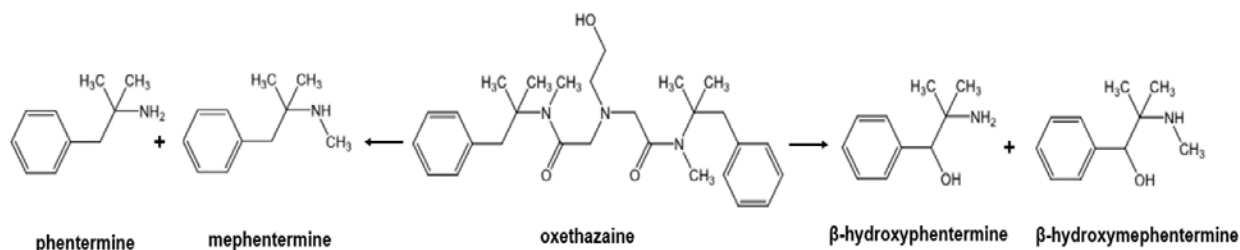


Figure.1 Metabolism of oxethazaine (adapted from Sigmund *et al.*^[1]).

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

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oxethazaine (e.g. concentration of phentermine and/or mephentermine higher than (>) that of oxethazaine *Metabolites*).

3.0 References

- [1] Sigmund G., Seinsch I., and Schänzer W. Detection of Phentermine and Phentermine Derivatives as Metabolites of Oxethazine. In: W Schänzer, H Geyer, A Gotzmann, U Mareck- Engelke (eds). *Recent Advances in doping analysis* (6). Sport und Buch Strauß, Köln, 483- 487, 1999.