

TD2021EAAS

Summary of Major Modifications

The *Technical Document* on Measuring and Reporting of Endogenous Anabolic Androgenic Steroid (EAAS) *Markers* of the Urinary Steroid Profile, TD2021EAAS, has been aligned with the 2021 World Anti-Doping Code (*Code*) and the recently approved 2021 *International Standard* for Laboratories (ISL); and, the other *International Standards*, which are set to come into force on 1 January 2021.

The main changes in the TD2021CG/LH include:

- The title has been adjusted to better reflect the scope of this *TD* and different sections have been reorganized to facilitate reading and interpretation;
- Important modifications have been introduced, including the definition of reporting limits for non-prohibited substances that may alter the steroid profile, the revision of the modalities of Confirmation Procedure Requests (CPR), and the steroid profile reporting requirements for “A” and “B” *Samples*.
- Formatting as well as updating of terms and definitions, where relevant;
- Footnotes have been inserted as Comments where relevant in the main text.

Article 1.1 The Steroid Profile

- A better description of what constitutes the urinary steroid profile as well as the function of the Adaptive Model in *ADAMS*.

Article 1.2 Procedure for Determination of the Steroid Profile

- Clarification of the two-step procedure for the determination and reporting of a *Sample's* steroid profile, further expanded by an added table that lists the *Markers* of the steroid profile and includes a brief description of how they are determined.

Article 1.3 Factors Impacting the Steroid Profile

- Improved description of the factors that may alter the steroid profile, including additional examples of 5α -reductase inhibitors (dutasteride) or and compounds similar to ketoconazole (fluconazole, miconazole).

Article 2.1 Initial Testing Procedure (ITP) Method Requirements

- Detailed description, in a table 2, of the validation and analysis requirements of the GC-MSⁿ ITP.

Article 2.2 Reporting the *Sample's* Steroid Profile from the ITP

- Reporting limits for additional non-prohibited substances that may alter the steroid profile (5α -reductase inhibitors and compounds of the ketoconazole family) have been introduced;
- The conditions for reporting *Sample* Manipulation (*Tampering* or *Attempted Tampering*) have been transferred into a new article 4.0

Article 2.2.1 Validity of the *Sample* Steroid Profile

- Extensive microbial contamination is described in the *TD* body text as the main factor that leads to the invalidation of a *Sample*. The description of all other conditions that trigger specific reporting guidance has been removed from the main text, since it is considered that this is well covered in Table 3.

Article 3.0 Confirmation Procedures (CP)

- The different kinds of Confirmation Procedure Requests (CPR) that the Laboratories may receive to confirm the *Markers* of the steroid profile have been updated:
 - **Article 3.1.1** A detailed explanation is given about the process to follow when an automatic *Atypical Passport* CPR is received for an abnormally high T/E value through *ADAMS*, including the requirement that the Passport Custodian or the Testing Authority (or Results Management Authority, if different) provides the Laboratory advice on whether to proceed or not with the CP of the *Sample's* steroid profile within fifteen (15) days from the *ATPF-CPR* notification;
 - Importantly, Laboratories will not receive CPR for suspicious steroid profiles (SSP-CPR) through *ADAMS* anymore. From now on, SSP-CPR notifications will be received and managed by the Athlete Passport Management Units (APMU), which will act in accordance with the TD2021APMU;
 - **Article 3.1.2** It has been clarified that, in addition to the automatic *ATPF-CPR*, Laboratories may receive CPR from the Testing Authority for the confirmation of abnormal values of the other ratios of the “steroid profile”;
 - Laboratories may also receive additional CPR from the Testing Authority (or Results Management Authority, if different), the APMU, or *WADA*.

Article 3.2.1 Confirmation Procedure of Steroid Profile *Markers* by GC-MSⁿ

- Includes a better description of the conditions that shall trigger GC-MSⁿ confirmation of the steroid profile;
- Additional validation and analysis requirements of the GC-MSⁿ CP are provided.

Article 3.2.2 GC/C/IRMS CP

- It has been clarified that when an *AAF* is reported for the *Marker(s)* of the steroid profile based on the results of a GC/C/IRMS analysis performed on the “A” *Sample*, only the GC/C/IRMS analysis, including the identification of the relevant *Markers* (target

compounds and endogenous reference compounds) shall be repeated during the “B” *Sample CP*.

Article 3.3 Reporting Results from the CP

- Guidance is provided on the reporting requirements for the confirmed steroid profiles of “A” and “B” *Samples*.

Article 4.0 Reporting Sample Manipulation (*Tampering or Attempted Tampering*)

- Updated guidance is provided on the conditions that may trigger the reporting of *Sample Manipulation (Tampering or Attempted Tampering)*, including *Sample* substitution.

Article 5.0 References

- The list of scientific publications and *WADA* laboratory standards references has been updated

The TD2021EAAS replaces the former TD2018EAAS and becomes effective on 1 April 2021.