



WADA-TUEC Medical Info. to support decisions of TUEC for Asthma (Version 1.7 : Dec 2009)

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Celebrating a decade of **play true**





Resources

(1) <http://www.wada-ama.org>

- * whereabouts
- * **ADAMS**
- * Prohibited list
- * **TUE**

(2) Download Center

- * **2009 IS-TUE**
- * **TUE guideline (version 2.2 2009.12.)**
- * **Medical info. to support the TUEC
ASTHMA (version 1.4, 2009.6.)**
- * **The 2010 Prohibited list (2009.9.30)**
- * **Medical info. for the TUEC
Version 1.7 Dec. 2009 -> in progress**





WADA Prohibited List (disclosed on September 2009)

NOTABLE CHANGES on S3 (Beta-2 Agonist)

1. Salbutamol & Salmeterol, by inhalation :
→ Not prohibited, and no longer require TUE, but a declaration of use (DoU) (by ADAMS and/or DCF in competition)

2. If Urinary Conc. of Salbutamol > 1'000 ng is considered as AAF, unless the Athlete prove of their therapeutic use (Pharmacokinetic study)





WADA-TUEC, Medical Information to Support the Decision of TUEC for ASTHMA (version 1.7, Dec 2009)

- (1) Introduction**
- (2) Diagnosis (Dx):**
 - A. Medical history**
 - B. Dx Criteria [P.E., Lab (PFT), Provocation test]**
 - C. Relevant Medical information (patient'Chart etc)**
- (3) Medical Best practice Treatment.**
- (4) Other Non-prohibited alternative Treatment.**
- (5) Consequences to Health if Treatment is withhold.**
- (6) Treatment monitoring**
- (7) TUE validity and recommended Review process.**
- (8) Any appropriate cautionary matter.**
- (9) Specific circumstances**

Fig: Asthma Management Scheme

References, including “2008 IOC Consensus conf. Report

“ Asthma & Elite athlete, Lausanne, Suisse. 2008.

[Fitch K. etc: J Allergy & Clin Imm 122 (2) 2008.]





Asthma (EIA/EIB)

- **Characterized by:**
 - (1) **Recurrent Airway obstruction (clinically)**
 - (2) **Reversible Airway Hyper-reactivity (hyper-responsiveness)**
 - (3) **Diagnosis : (confirm) SPIROMETRY measuring FEV1/FVC % & * FEV1**
 - * **with Bronchodilator test**
in case of $FEV1 < 80 \%$
 - or **Bronchial Provocation test**
in case of normal spirometry

- Diagnosis : (medical)**
- (1) **Medical history**
=< (2) **Dx. Criteria**
 - (3) **Relevant Medical inform.**
If there is not a positive response to a Bronchial Provocation test, →
 - * **the application may still be considered through a formal review of the Complete Medical File (of Treatment Record, patients chart)**
(p.s. : there are certain group of Asthma patient who may show neg. test.)





Spirometry (measuring FEV1) with Bronchodilator test

Clinical Asthma (dyspnea / wheezing)

- Spirometry to prove Airway obstruction
- FEV1 < 80 % predicted, FEV1/FVC < 0.7 (%)
- Go to Bronchodilator test
 - Administer Salbutamol inhalation (200 ~ 400 ug)
 - If FEV1 increase more than 12 % or more compared with previous test → positive test
 - Asthma Dx. Confirmed. No further test needed.
(* No Provocation test is required)
 - Athletes free to Use of Salbutamol / Salmeterol with GCS inhalation under Declaration of Use by ADAMS and/or DCF during competition /OOT.



Bronchial Provocation Test (BPT) - (in case of Negative Bronchodilator test, even if clinically evident Asthma athletes)

Clinical Asthma with normal FEV₁ :

(Normal : FEV₁ > 80 %, FEV₁ / FVC > 70 %)

→ Bronchial Provocation Test (BPT) to prove ->

Airway Hyperreactivity (Hyperresponsiveness)

(When doing PBT = to be ready for ER Tx of Asthma)

→ Confirm Airway Hyperresponsiveness by either

(1) More than 10 % decrease of FEV₁ (measured value) after
Exercise or Eucapnic Voluntary Hyperpnea

Or (2) More than 15 % decrease of FEV₁ after
hyperosmolar (saline or mannitol) challenge.

Or (3) More than 20 % decrease of FEV₁ after
methacholine test - PC₂₀ < 4 mg/ml





Treatment of Asthma Athletes (Medical Best Practice Tx.)

- (1) Inhalation of Salbutamol or Salmeterol combined with **Glucocorticosteroid (GCS)**.

Salbutamol= Short rapid acting, effective drug of choice

Salmeterol = Long acting effective drug of choice.

- (2) Salbutamol / Salmeterol inhalation Treatment

* are not prohibited as of January 1, 2010.

* no longer require a TUE, but need to have a declaration of use (DoU) (ADAMS / DCF)

- (3) If the urinary Conc. > 1000 ng/ml, there will be a presumption that the substance was not taken by inhalation therapeutically, and athlete will have the burden to demonstrate via a controlled pharmacokinetic study that the level found in his/her urine was the result of therapeutic inhaled use





SUMMARY

Celebrating a decade of **play true**



WADA

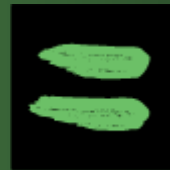
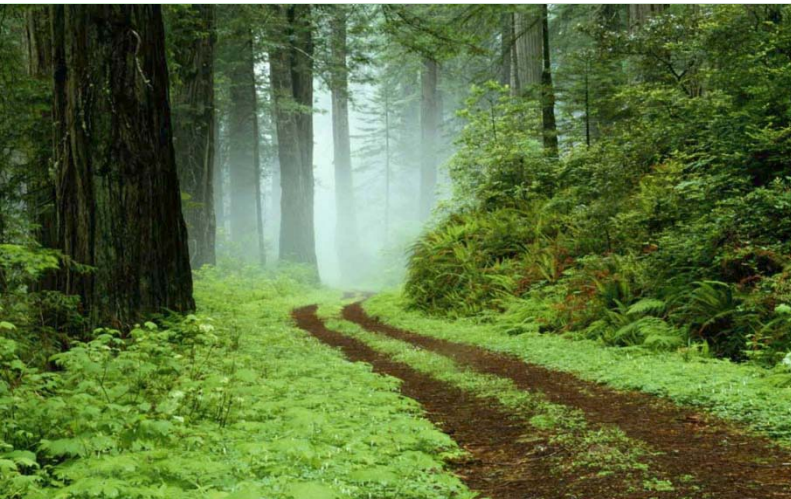
1999
2009



- (1) Change of Status of B2- Agonists
from 2010 Prohibited list → will allow**
 - **More easy access of Tx for Asthma**
 - **Less work load in administration / finance**
 - **More protection of athlete of EIA**
 - **Able to avoid under Diagnosis / under Treatment**
 - **More clear goal in Anti- doping education**

- (2) Need for Continuous Education
from Top to Athletes of all levels incl. ADAMS.**





THANK YOU for your Attention

(from : Keun-Youl KIM)

