

Position Statement Asthma diagnosis and treatment

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The diagnosis of asthma in sport and exercise medicine is clinical with the addition of pulmonary function tests (PFT) (to ERS and ATS standards). The percentage changes in PFT are as follows:

— resting pulmonary function tests, (12% bronchodilation after a bronchodilator by inhalation above the athlete's resting FEV₁)

and/or

— non pharmacological challenge (10% bronchoconstriction) after exercise

and/or

— pharmacological stimulation tests (20% bronchoconstriction at a methacholine dose of 1-4 mg/mL or less^{1*})

Treatment of asthma

Allowed drugs without notification:

— sodium cromoglycate (SCG);

Evaluation of the hypersensitivity of airways with Methacholine test. Subjects with PC 20 <4 mg/mL o PD 20 <400 mcg) are considered asthmatic.

Subjects with PC 20 at 8-4 mg/mL (o PD 20 400-800 µg) are considered with high probability asthmatic.

Subjects with PC 20 at a 16-8 mg/mL (o PD 20 800-1600 µg) are considered with low probability asthmatic.

If the subjects has used an inhaled anti-inflammatory in the 6 weeks prior to the test, we consider the value of PC 20 <13 mg/mL o PD 20 <1300 µg to define him/her asthmatic.

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European Olympic Committees Medical and Scientific Commission

— leucotriene receptor antagonist;
— theophyllines orally;
— anticholinergics by inhalation

Allowed with an abbreviated therapeutic use exemption (aTUE):

— β-2 sympathomimetics by inhalation (salbutamol, terbutaline, salmeterol, formoterol). Name, dose and frequency must be specified;

— glucocorticosteroids by inhalation (beclomethasone, budesonide, flixotide, others).

Banned antiasthma drugs:

— all systemic β-2 stimulants;
— all systemic glucocorticosteroids;
— clenbuterol by inhalation or orally.

An abbreviated therapeutic use exemption

An aTUE should be submitted through the athlete's International Federation (IF) for the use of antiasthma drugs mentioned in the aTUE list, which are strictly limited to the following β-2 agonists by inhalation: salbutamol, terbutaline, salmeterol, formoterol and glucocorticosteroids by inhalation. Then, upon reception of the aTUE, the athlete's IF report to the World Anti-Doping Agency (WADA). The aTUE may be

revoked at any time with notice. It is renewable every 4 years. Ideally, an athlete should bring documentation and the approved aTUE with him/her to the antidoping centre if a sample is requested in competition. The allowed if notified drug should be declared on the antidoping form. For non International performing athletes the application for an aTUE have to be addressed to their National Anti-Doping Organisation (NADO).

Anti-asthma drugs are specified substances in the List 2007 (*i.e.* they are being continuously reviewed).

References

1. Carlsen KH, Cummiskey J, Delgado L, Del Giacco S. Diagnosis, prevention and treatment of exercise related asthma, respiratory and allergic disorders in sport. *Eur Respir Mon* 2005;33:1-107.