



**WORLD  
ANTI-DOPING  
AGENCY**  
play true



**ANTI-DOPING  
NORWAY**

## **Anti-Doping Symposium - Norway**

---

### **Report**

#### **Planning doping control for the purpose of detecting, deterring and/or preventing the use of prohibited substances**

---

##### **1. Introduction**

A Symposium with representatives from National Anti-Doping Organizations, International Federations, National Federations and Athletes was convened in Oslo, Norway in May 2005. The main topics of the discussions included efficient test distribution planning for the purpose of detecting, deterring and preventing the use of prohibited substances. The Symposium aimed to assess the rationale behind the planning of doping controls, both in and out of competition, in order to determine how the scarce anti-doping resources world-wide can be best utilized.

##### **2. The Role of an Anti-Doping Organisation**

Statistics provided by laboratories indicate that over 150,000 tests are being conducted annually, whilst the percentage of possible doping infraction is less than 1. Based on these figures, would it be reasonable to assume that 99% of athletes are not using performance enhancing substances? At the same time an estimated 50 million dollars is used for testing purposes. One of the main questions to ask is if the anti-doping organisations testing methods are adequately quality related, providing the purpose is to catch the cheaters. Or should the purpose be to prevent and/or deter the athletes from using prohibited substances. If the latter, is this why the statistics are low in relation to positive analysis results. Is testing planned today, carried out to prevent and deter the use of prohibited substances?

Each anti-doping organisation is advised to have some clear notion and practices of the principles discussed in this report, within their own organisation, prior to their test distribution planning.



**WORLD  
ANTI-DOPING  
AGENCY**  
play true



## 2. Requirements in the World Anti-Doping Program (WADP)

In the introduction of the World Anti-Doping Code it is stated that the purposes of the World Anti-Doping Program and the Code are to protect the Athletes' fundamental right to participate in doping-free sport and thus promote health, fairness and equality for Athletes worldwide; and to ensure harmonized, coordinated and effective anti-doping programs at the international and national level with regard to detection, deterrence and prevention of doping.

The Code also indicates that Anti-Doping Organizations (ADOs) are required to plan and implement an effective number of In-Competition and Out-of-Competition tests. However, the Code does not define the meaning of "effective" in terms of approach to testing or the number of tests to be conducted in order to be considered "effective".

The requirements in the WADP provide some directives and advice of desired test distribution planning in a manner that open for a wide range of directions.

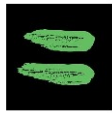
The World Anti-Doping Code (WADC) article 5, focus on some few elements:

- Coordination between the ADOs
- Effective number of tests
- In and out-of-competition testing
- No advance notice testing
- Target testing (to ensure that all of the appropriate athletes will be tested)

The International Standard for Testing (ITS), section 4.5 require the ADO to evaluate the potential risk of doping and possible doping pattern for each sport discipline based on:

- Physical demands of the sport and possible performance enhancing effect that doping may elicit
- Available doping analysis statistics
- Available research on doping trends
- Training periods and competition season

The ITS also defines the need for using previous planning and testing and also to review the plan at regular



**WORLD  
ANTI-DOPING  
AGENCY**  
play true



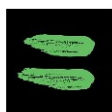
### **An athlete's story**

An insight of how and why athletes choose to use prohibited substances was presented by the athlete Kelli White. Ms. White tested positive for a prohibited substance, modafinil, during the IAAF WC in Paris in 2003. She later admitted to an extensive use of prohibited substances. Kelli White stated that she had been tested 17 times, in- and out-of competition, while using prohibited substances, without being caught. Applying a strict regime of when and where to use prohibited substances, in combination with a thorough planning of where and when to participate in competitions, made it possible to compete without being caught. She explained that she had no concerns for getting caught due to the administration regime. She admitted to, among others, having used EPO, THG and testosterone. She stated that it took a long time and a lot of thinking before making the decision of using these prohibited substances.

### **Signs to look for related to possible doping abuse while planning for detection purposes:**

- Heavy doping abuse is professionally organised
- Doping does not happen by "accident", but is well thought of and deliberate
- Athletes have a tremendous confidence in their trainers
- The abuse starts when the athlete is "low"
- Prohibited substances can be used for all sports and disciplines and not only the "obvious"
- Testing can have a deterrent effect
- An athlete abusing prohibited substances will often avoid friends and family

She defined it as "crossing a line", once the decision was made. Her main reason for starting the abuse was explained as "because everybody is using it", she was "low" due to injuries and advised to start on a doping-program "in order to be competitive". Kelli White explained that she worked with the same trainer for 13 years and stated the "you give your life to your coach". She also admitted to have used EPO for training purposes and not for competition. She reckoned that "a top-level athlete are beyond attitude building activities", and that these activities must take place on a low-level. She also stated that "education does not scare anybody", but "the test itself makes the athlete aware of anti-doping." Kelli White explained how she avoided her family and friends as they were the only people that would have understood what she was up to.



**WORLD  
ANTI-DOPING  
AGENCY**  
play true



## What is efficient doping control – a presentation of a study

A presentation of a study carried out by the Norwegian school of sports sciences was presented at the symposium. The study was carried out among some few anti-doping organizations for the purpose of discussion what constitutes efficient doping control. A report from the study was presented aimed to serve as a working document for further discussions.

Efficiency in relation to test distribution planning should focus on an optimal balance between costs and benefits, i.e. how should an anti-doping organisation spend its money to achieve the best possible outcome. The detailed study is attached to this report. Beneath is a short summary of recommendations based on the outcome of the study.

The WADP should be strengthened particularly related to:

- definition of independence related to an ADO
- guidelines for selection of athletes to the testing pool
- education and training of doping control personnel (DCOs and Chaperones)
- guidelines for selecting athletes to the testing pool
- operational rules for collecting and using whereabouts information
- definition and rules of warning systems in relation to lack of whereabouts
- definition and operational rules of no-advance notification
- principles of distribution of tests between in-competition and out-of-competition in lieu of socio-political benefits and doping-free competitions
- operational definitions between target and random testing

Possibilities for further the cooperation between national anti-doping organizations (NADO) and international federations (IF) should be strengthened.

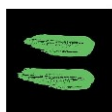
Tip-offs and investigations can be extremely efficient, and official channels should be established. Such systems must be linked to fair-play and have no financial rewards.

Both high- and low level athletes should be subject to testing. Definition and selection of athletes for testing pool(s) should be clearer assuming that not all athletes should be required to provide detailed whereabouts information, but should be subject to testing.

Possible abuse of prohibited substances should be investigated related to each country and different culture. Possible abuse should also be investigated related to each sport and discipline.

The use of full-time DCOs should be investigated in order to promote the standard of excellence required. Such DCOs could have multiple functions and also be used for attitude building and educational activities.

An approval system of ADOs, documenting their adherence to mandatory requirements, should be pursued by WADA.



**WORLD  
ANTI-DOPING  
AGENCY**  
play true



### The Laboratory Perspective

The Aker Hormone Laboratory introduced the possibilities of further the cooperation between Laboratories and the Anti-Doping Organizations in order to use the knowledge obtained by analysis and medical science in the practical test distribution planning.

Ben Johnson was tested many times (approx. 50 times), all in-competition testing. A rigid regime of abuse can lead to clearance of substances in-competition. However, for no-advance notification in an out-of-competition setting, such regimes cannot guarantee that the user will not get caught. He was caught in 1988. Johan Mühlegg was caught in-competition in 2002. It is possible he was under the assumption that there were no analytical methods available to expose his abuse.

There are some analytical results that will give a possible suspicious result without being positive. These results could be reported to the anti-doping organisation in order to further the planning for possible detection purposes.

Doping agents take different times to leave the body. Time from when the athlete has taken a substance until it is no longer detected must be observed and included in detection planning. The following table provides typical observations related to different prohibited categories of substances, and can be applied for guidance when planning for detection purposes:

Doping agents	Presence in the body <sup>1</sup>	Possible effect of performance	Time of testing
Stimulants	A few days	1 day	In-competition
Diuretics	A few days	Hours	In-and out-of competition <sup>2</sup>
GH	1-2 days	Weeks and month	Out-of-competition (1-3 weeks before competition)
EPO	1-3 days	Weeks and month	Out-of-competition (1-3 weeks before competition)
NESP	4-6 days	Weeks and month	Out-of-competition (1-3 weeks before competition)
Anabolic steroids (orally)	1 week	Months	Out-of-competition (month before)
Anabolic steroids (by injection)	months	months	Out-of-competition (month before)
HES, cannabis	1-2 weeks	1 day	In-competition

<sup>1</sup>)Parent compound or metabolite <sup>2</sup>) Masking agent

Each international federation together with WADA can define criticalities related to the use of prohibited substances and related to risk of abuse. Such definitions should not exclude each anti-doping organisations responsibility of carrying out a detailed risk evaluation based on local particularities.



Testing should be planned, based on a critical evaluation of possible doping abuse. Once the time of testing has been settled, available whereabouts should be investigated ensuring that testing is carried out as planned.

### Discussions and conclusions related to the role of an anti-doping organisation

International federations should do detection testing only on the very top level athletes, both in- and out-of competition and in areas where there are no operational national anti-doping organisation.

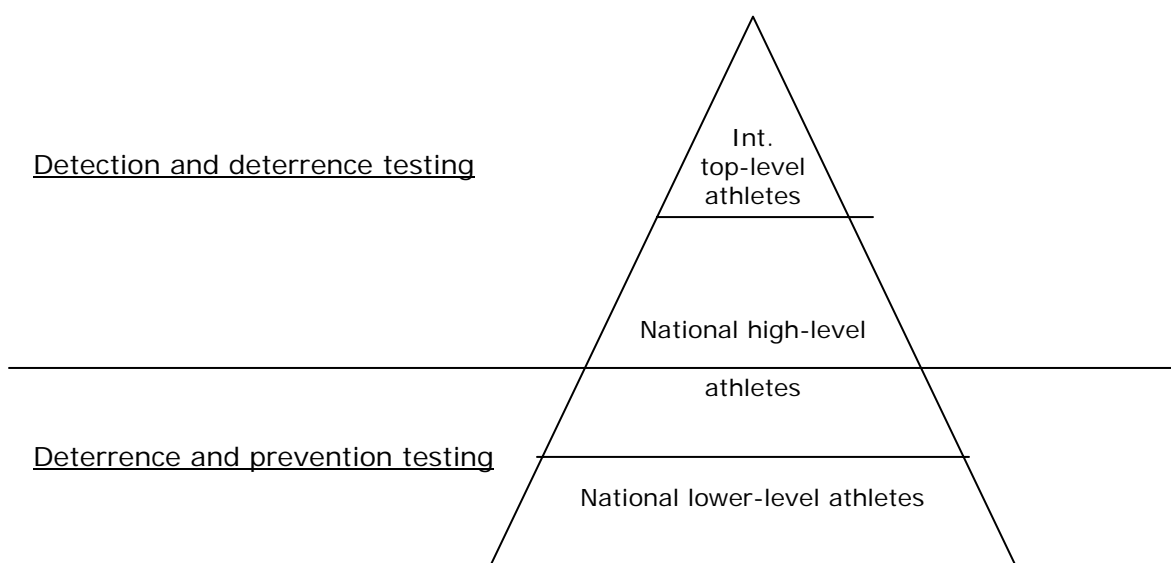
International federations should define and share their intelligence with national anti-doping organisations.

National anti-doping organisations should plan for all types of testing for the purpose of detection, deterrence/prevention. Testing should take place on international and national level athletes. More detection testing should be focused, but not at the expense of deterrence testing. Deterrence testing is regarded as an important tool particularly for lower level athletes for the purpose of building desired attitudes.

WADA should have a monitoring function in relation to the mandatory requirements in the World Anti-Doping Program and ensure that National Anti-Doping organisations are established and operational in areas where there are none.

WADA should also be responsible for facilitating efficient testing and should do detection testing with a focus on areas where there are no operational national anti-doping organizations.

Communication between national anti-doping organisations and international federations must be encouraged on all levels.





**WORLD  
ANTI-DOPING  
AGENCY**  
play true



No-advance notification should be carried out at all times, and by all anti-doping organisations, in order to ensure unpredictability. This requirement should be defined as a mandatory requirement. An advance notification for in competition testing may have a deterrent effect. A no-advance notification for an in-competition will have a detection effect. Detection planning at all levels will also have a deterrent effect..

## **Discussions and conclusions related to test distribution planning for detection purposes**

### *Priorities*

Detection testing should be a priority, particular related to top-level athletes. Top level athletes should be subject to target testing. This priority should not be subject to a decrease in the number of tests. The anti-doping organisations need to test "smarter", e.g better cooperation between the anti-doping organizations on all levels and general optimization of controls. More time should be used in planning for detection purposes, in order to increase the quality of this type of testing.

### *Whereabouts*

Centralization of whereabouts and sports specific information should be a WADA-task.

### *When to test for detection purposes*

Timing is essential when planning testing for detection purposes. The window for detection of possible abuse is limited. Detection testing should not be planned based on available whereabouts, but on available scientific information. Scientific knowledge, such as prohibited substances possibilities in lieu of abuse must be made available and used for planning purposes. Research results and sports specific risk evaluation should be defined and made available. This work should be carried out by experts in the field being laboratories, international federations, national anti-doping agencies etc. The information should be used for the purpose of planning detection testing.

### *Cooperation*

Communication and cooperation between national anti-doping agencies and international federations should increase on all levels, e.g political, managerial and operational.

### *Cost benefits*

### **Selecting athletes for detection purposes**

In order to select athletes for detection purposes all resources must be exhausted, such as;

- Tip-offs
- Hotline
- Cooperation with police
- Cooperation with customs
- Results from sports/discipline risk evaluation
- National cultural aspects
- Sports cultural aspects
- Sports specific history of doping
- Popularity/number of athletes within the sport/discipline
- Sport/disciplines competition season/off-season
- Individual athlete ranking
- Individual athlete illness
- Individual athlete performance and status
- Individual athletes physical attributes
- Athletes coaches and support environment
- Athletes TUEs
- Additional analysis should be reviewed for target testing out-of-competition.
- Financial gains



**WORLD  
ANTI-DOPING  
AGENCY**  
play true



Optimization and cost benefits can be observed by testing more athletes in one control, particularly related to deterrent/preventive testing.

International Federations can review the National Anti-Doping Organisations status and focus their testing in countries where there are no operating national anti-doping organisations.

Cooperation, communication and knowledge between the International Federations and the National Anti-Doping Organisations are crucial for cost benefits and to promote quality of testing.

*Particular aspects to observe for detection testing*

Unpredictability is essential when planning and carrying out testing for the purpose of detection.

No-advance notification, i.e. the athlete must not know at any point or any time prior to face-to-face communication with the doping control officer, is the only notification that should be used when carrying out testing for detection purposes.

**Discussions and conclusions related to test distribution planning for deterrence and prevention purposes**

One of anti-doping main purposes is to prevent athletes from using prohibited substances. Deterrent/preventive testing should therefore also be carried out, particular on national level athletes.

Simply carrying out any doping control must be regarded as having a deterrent effect.

Planning deterrent/preventive testing should evaluate the need for educating athletes, particular young low level athletes in order to build the desired attitude towards anti-doping.

It is important to attack the culture of doping and recognize that use of prohibited substances could be widespread across all levels of athletes.

Athletes are often aware of prohibited substance and their affects.

High visibility at this type of testing could be both deterrent and preventive.

In competition and at training venues can be both deterrent and preventive.

It was also agreed that in order to have effective deterrence there is a need to have more effective detection of those athletes using prohibited substances; if we are not catching the athletes, we will never deter them.

**Selecting athletes for deterrence and/or prevention purposes**

Typical selection of athletes for deterrence and/or prevention purposes can be, such as;

- Athletes participating in sports/disciplines defined as low risk in accordance with the risk evaluation results.
- Athletes competing at a national low level
- Younger athletes at national low level
- Randomized selection at lower level of in-competition.
- Randomized selection of larger number of athletes to provoke attention.



### Key Conclusions and Action Plan

The participants at the Symposium were asked to consider the priority of the conclusions reached. The group identified a need for further knowledge and education on several issues and topics, such as;

- Insight of operations at other Anti-Doping Organisations (NADOs and IFs)
- the athletes perspective
- using analytical results
- using medical knowledge

It was also considered important that some of the conclusions of the Symposium be defined in the World Anti-Doping Program, either as mandatory requirements, or as guidelines or models of best practice. Below is a summary of proposed changes to the World Anti-Doping Program for consideration. These proposals will form part of a consultation process with relevant committees and stakeholders

Key Conclusion	WADC requirement	Standard requirement	Guideline recommendation
<b>Role of an ADO</b>			
Planning testing should be for the purpose of catching the cheaters through detection testing and preventing abuse through deterrent / prevention testing	Definition of an ADO independence from govt/sport/labs should be defined		Recommendation on the number of tests that should be conducted by ADO for it to be considered effective should be developed
WADA & IFs should focus their testing for detection purposes	Language in the Code shall be stronger to highlight the importance of detection and target testing. (e.g 5.1.3: "Conduct target testing" to change to "ensure that the majority of testing is targeted")		Models for establishing and managing registered testing pools and guidelines for athletes inclusion in Registered Testing Pools. Models for communication with athletes relating to whereabouts (including forms and letters to
NADOs should focus on detection, deterrence, prevention. More emphasis should be placed for planning tests for detection purposes	5.1.1 Clarify that testing is not		



**WORLD  
ANTI-DOPING  
AGENCY**  
play true



**ANTI-DOPING  
NORWAY**

Key Conclusion	WADC requirement	Standard requirement	Guideline recommendation
	<p>only for athletes in the registered testing pool eg "each IF and NADO shall plan and conduct testing on its registered testing pool. Non registered testing pool athletes shall also be selected for testing"</p> <p>Role of NFs should be clarified</p>		<p>athletes, DCO responsibilities/unsuccesful mission reports/missed test )</p> <p>DCO and chaperone recruitment, training and accreditation guidelines should be developed</p>
<b>Cooperation / Communication</b>			
IF/NADO/WADA should work closely together and build on mutual trust to facilitate effective testing programs (possibly via future symposia)	All ADOs should be allowed to test at events without "approval" of International Federations while maintaining coordination	A WADA-approval program for ADOs should be developed and introduced.	
Sharing of information between ADOs should increase			
Cooperation between NADOs and IFs should be encouraged allowing IFs to focus on target testing in specific regions of the world			
An extranet could be developed in order to share information			
Hotlines should be introduced to facilitate tips on doping use			
Testing pools should be made more transparent. "ADOs could post their registered testing			



**WORLD  
ANTI-DOPING  
AGENCY**  
play true



**ANTI-DOPING  
NORWAY**

Key Conclusion	WADC requirement	Standard requirement	Guideline recommendation
pool on their website"			
Clearer definition and provision of operational terms should be developed to encourage common key practices.		Clearer definitions of in and out of competition testing, no-advance notice/advance notice testing, target/random testing, registered testing pool and missed test	Provision of operational terms should be developed to encourage common key practices, eg. Registered testing pool, whereabouts, in-competition, no-advance notification, missed test, etc
Better communication and cooperation between laboratories and ADOs should be encourage.		Analysis reports shall provide information detailing suspicious samples to enable more effective target testing	
Coordination with police, customs and relevant authorities should be improved			
<b>Detection</b>			
Athlete should be tested based on rational / scientific information criteria			Test Distribution planning guideline should include methods for target testing and methods of ensuring unpredictability in the testing program.
Improved quality/detection testing should not mean a decrease in number of testing			Operational guidelines on practicality ways of testing should be developed (when to test, where to test)  A matrix of prohibited



**WORLD  
ANTI-DOPING  
AGENCY**  
play true



**ANTI-DOPING  
NORWAY**

Key Conclusion	WADC requirement	Standard requirement	Guideline recommendation
			<p>substances should be developed with experts in the field</p> <p>Risk factors for all sports, including a general model for assigning priority to sports/disciplines, should be developed and updated on a regular basis by WADA in cooperation with IFs. Should be made available and adopted by all ADOs.</p> <p>Recommendations for in/out comp testing ratio should be developed</p>
All tests should be No-advance notice, including in competition testing	5.1.2: 'Make no advance notice testing a priority' to change to "other than in exceptional circumstances, all testing shall be no-advance-notice"	Stronger requirement for target and no-advance notification testing	
<b>Deterrence / Prevention</b>			
Deterrence testing for the purpose of preventing abuse of prohibited substances is important and for each organization to determine how they in-cooperate this type of testing. However, emphasis			



**WORLD  
ANTI-DOPING  
AGENCY**  
play true



**ANTI-DOPING  
NORWAY**

Key Conclusion	WADC requirement	Standard requirement	Guideline recommendation
should be placed on detection			
Deterrent / preventive testing should be carried out on lower level athletes for attitude building purposes			Athlete random selection guidelines for DCOs should be developed
Education activities of lower level should otherwise be the focus for prevention			



**WORLD  
ANTI-DOPING  
AGENCY**  
play true



## APPENDIX A

The outcomes of the symposium will progressively enhance the detection, deterrence and prevention of doping. To ensure such a progressing commences it will be important to consider introducing changes to the World Anti-Doping Program. Below is a summary of proposed changes to the World Anti-Doping Program for consideration. These proposals will form part of a consultation process with relevant committees and stakeholders

### **1. Changes for consideration to Code (these are suggestions for further discussion when the Code is reviewed in 2007):**

- Article 5.1.1 Clarify that testing is not only for athletes in the Registered Testing Pool eg "each IF and NADO shall plan and conduct testing on its RTP. Non RTP athletes shall also be selected for testing"
- Article 5.1.2: 'Make no advance notice testing a priority' to change to "other than in exceptional circumstances, all testing shall be no-advance-notice"
- Article 5.1.3: "Conduct target testing" to change to "ensure that the majority of testing is targeted"

### **2. Changes for consideration to International Standard for Laboratories:**

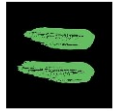
- Results reports to include more detail on analysis, including suspicious samples, to enable more effective target testing.

### **3. Changes for consideration to International Standard for Testing:**

- Possible addition of "ADOs shall post their Registered Testing Pools on their website"
- Clearer definitions of in and out of competition testing, No advance notice/short notice testing, Target/random testing, Registered testing pool
- Improved clarity on role of NFs
- Stronger recommendations for target, no advance notice testing, etc
- Recognition or approval for ADOs by WADA

### **4. Development of new Models of Best Practice/Guidelines and proposed changes to existing Best Practice/Guidelines:**

- Establishing and managing Registered Testing Pools, including communication with athletes
- DCO and chaperone recruitment, training and certification
- Test Distribution planning, including target testing/unpredictability
- Whereabouts (whole package including forms/letters to athletes/DCO responsibilities/NAN testing/Unsuccessful mission reports/missed test )
- DCO reporting guidelines
- Athlete random selection guidelines for DCOs



**WORLD  
ANTI-DOPING  
AGENCY**  
play true



- Guidelines for establishing an information line
- Guidelines for the publishing of statistics/Adverse analytical findings/etc
- Model for assigning priority to sports/disciplines – overall guide developed by WADA which will then be adapted per sport/country
- Guideline on effective levels of testing/education
- Recommendations for in/out comp testing ratio
- Recommendation on testing pre-Games (eg each NADO's testing) - test athletes more than once, do we need to test whole team, etc

#### **5. Miscellaneous actions for WADA to consider dependent upon demand:**

- Make educational materials, including presentations, available on Web, for education purposes
- Consider a system of access passes for all ADOs to access competition venues for in-competition testing
- To make available via intranet information on scientific research and other useful information – IF input, timing of testing, etc
- To make available on intranet a 'checklist' of ADOs – who does what (eg which organizations do OOC testing, which do blood, etc)
- Clear messages that funding to NADOs should be adequate ensuring that efficient testing can be planned and carried out.
- Encourage sharing of knowledge and experience between ADOs via guidelines
- Encourage more seminars for sharing of expertise
- Work on improved relations with athletes to encourage them to assist in the fight against doping in sport.
- Develop a newsletter for ADOs.
- Develop, with experts, a matrix of prohibited substances which would include performance effect vs. clearance times
- Develop recommendations on the number of tests that should be conducted for particular programs to be considered effective.