

Olympic games put athletes to the test

Mark Stuart discusses the new anti-doping code and the drug testing that met athletes at the recent XX Olympic Winter Games in Turin, Italy

Implementation of the doping control programme created a different challenge for the organisers of the XX Olympic Winter Games in Turin. Normally, the International Olympic Committee (IOC) disqualifies and expels athletes for doping at the games, but does not issue or support criminal penalties. However, under Italy's strict anti-doping law, athletes could face criminal sanctions for drug offences.

Drug testing at national and international sporting events in Italy is usually conducted by the Italian Health Ministry. In the months before the games, the ministry's under-secretary threatened to send police to conduct drug tests on Olympic athletes during the games. This was to ensure that Italian law was being followed and that criminal sanctions would be issued when a doping offence was found. After ongoing discussions, the ministry eventually backed down from its demand to conduct tests during the games and put the IOC in charge of all testing. However, no change was made to the law imposing criminal sanctions, which the ministry stated is aimed at protecting the health of athletes.

Anti-doping code

This is the first Olympic Winter Games since the world anti-doping code was accepted by all major sporting federations and over 180 governments, making it the most robust anti-doping programme at any winter games to date. The IOC stipulates that any sport wishing to be a part of the Olympic winter programme must have accepted and implemented the world anti-doping code, which outlines the process by which drug testing should be conducted and also provides the list of substances prohibited or restricted in sport. To enable governments fully to implement this code, which was accepted in 2003 in time for the Athens games, a two-part process was undertaken.

First, governments had to sign the "Copenhagen declaration", a political document indicating commitment to the code. The second step was for governments to implement the "International convention against doping in sport", a policy backed by the United Nations Educational, Scientific and Cultural Organization. This convention provided individual countries with the practical means of harmonising their local policies with the code. At present, individual governments are in the process of amending local doping control practices to comply with this global policy.

Mark Stuart was the doping control site manager for the ice hockey events at the winter games. He has also worked in pharmacy and drug control at previous Olympic Games and Commonwealth Games

With its zero tolerance approach to doping the IOC, together with the World Anti-Doping Agency (WADA) and the Turin Organising Committee (TOROC), was responsible for the anti-doping operations at these winter games. Under the authority of the IOC, TOROC was responsible for implementing testing at all the games venues and WADA implemented the testing for athletes who resided or trained outside these venues. Management of the laboratory results and any

laboratory was given the responsibility of processing all the doping tests from the winter games, with its activities closely overseen by WADA.

In order to process the huge volume of tests quickly, this whole laboratory was relocated to Turin for the duration of the games. A brand new temporary laboratory was built within the premises of the hospital in Orbassano, Turin, for this purpose and will be handed back to a local anti-doping consortium after the games. The laboratory was staffed by 45 scientists, but the entire team, including support staff, was around 80 people in total.

Prohibited substances

Tests were conducted during the competition period to cover the full range of drugs on the prohibited list. The categories of prohibited substances include anabolic agents, stimulants, hormones (and related substances), beta-2 agonists, anti-estrogenic agents, narcotics, cannabinoids, corticosteroids, diuretics and other masking agents. The entire current list of prohibited substances can be found on the WADA website at www.wada-ama.org (accessed 23 February).

In addition, athletes competing in some winter Olympic sports are subject to testing for specific substances that are considered performance enhancing for that particular discipline. For example, beta blockers are prohibited and tested for in curling, bobsleigh, ski jumping, freestyle aerial skiing and snowboard half pipe events, where they may be used to reduce tremor and to increase the athlete's ability to maintain precision during manoeuvres. Beta blockers are also banned in the biathlon, a combination of cross country skiing and target shooting, since they can steady the hand — a possible advantage in the shooting component of this event.

Each of the 14 competition venues had a new doping station purposely built, comprising an athlete waiting area, and a clinical room and toilets for the collection of urine samples. In addition, there was a larger doping station within each of the three athlete villages with facilities for collection of blood samples.

The doping control team was made up of volunteer doping experts from all over the world. The team was responsible for notifying the athletes of their selection for a test, either immediately after a competition, or within the village. Local doctors then acted as doping control officers; their role was to oversee the actual urine or blood collection and associated paperwork at the doping station.

WADA

WADA had a prominent presence in Turin and was responsible for a number of impor-

Athletes at the winter games: subject to a new drug code and strict Italian law

sanctions imposed on athletes testing positive for a prohibited substance was the sole responsibility of the IOC.

Around 1,200 tests were conducted over the entire period of the Olympic Winter Games, which was four weeks, from the opening of the athlete villages until the closing ceremony on 26 February. Given that there were around 2,500 athletes competing, the likelihood of being tested was high, and inevitable for all medal winners.

The number of urine tests performed had increased by 20 per cent since the previous winter games in Salt Lake City and, for the first time in winter Olympic history, blood tests were conducted. This resulted in around a 70 per cent increase overall in the number of tests performed, compared with the previous winter games. An additional 280 samples will be collected and tested throughout the duration of the Paralympic Games.

In January 2004, WADA was responsible for accrediting 33 laboratories worldwide. This ensured that they all met the international standards of quality for the testing for prohibited substances in urine and blood samples. In Italy, the accredited laboratory was the Antidoping Laboratory in Rome. This

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tant activities that supported the anti-doping operations at the games. It was also responsible for providing education to athletes.

WADA was in charge of running pre-games drug testing, the monitoring and review of any therapeutic-use exemption given to athletes taking medicines for medical reasons and the monitoring of any sanctions

given to athletes by the IOC during the games.

Independent WADA observers from around the world were assigned to oversee and report on the activities of individual doping stations at different times. Additionally, the WADA athlete outreach programme had a stand at each of the three athlete villages

where they provided athletes with information about doping issues. Athletes were encouraged to take part in a doping quiz to win prizes to help enforce the quality and credibility of the anti-doping message. Educational material, including an athlete guide to drug testing and copies of the prohibited list, were available in many languages.

Pharmacy at the games — a role in doping control while also providing health care to athletes

Each athlete village had a separate polyclinic which provided athletes with a full range of medical services, including a new purpose-built pharmacy.

The pharmacies were open from 8am until 10pm daily, with emergency overnight services, and two pharmacists were on staff at any one time.

Pharmacies were restocked daily by the regional Italian government pharmaceutical authority serving the Turin region.

A specialised drug formulary was developed by the TOROC health care programme and included a list of drugs available free of charge to athletes and their family members. A copy of this formulary was distributed to each team before the start of the games.

The formulary contained a selection of drugs from common therapeutic categories. Antibiotics available for prescribing included amoxicillin, Augmentin, cefaclor, ceftazidime, ceftriaxone, ciprofloxacin, doxycycline, erythromycin, imipenem, levofloxacin, metronidazole and Bactrim. Non steroidal anti-inflammatory drugs included celecoxib, diclofenac, ibuprofen, ketoprofen and aspirin. The relatively moderate altitude of the mountain venues meant that drugs to treat altitude-related conditions were not considered for the formulary. The formulary reflected similar doses and indications found in the official national

Italian formulary, which is based directly on a translation of the British National Formulary.

The dispensing programme was designed to alert the pharmacist when a prohibited or restricted substance was being dispensed. If this was the case, the doctor was required to explain the consequences to the athlete and the athlete and doctor had to sign the prescription. The prescribing doctor or the polyclinic director would then notify the IOC that a prohibited substance had been issued.

For the duration of the games, the Italian Ministry of Health allowed visiting medical doctors to provide their usual range of services to members of their own team. This enabled these doctors to use pharmaceuticals from the team supply and prescribe formulary medicines on official Olympic prescriptions to be dispensed from the polyclinic pharmacy. They were also given the right to order diagnostic examinations, medical imaging and laboratory tests from the polyclinic for their own team.

The shipment of medicines into Italy by individual teams for their own use was co-ordinated by the Ministry of Health, customs authorities and TOROC. Each team had to submit an inventory of the medicines it wanted to import to these organisations before the games.

Discretion must accompany speed

Stuart Anderson talks about some of the challenges that staff and athletes encountered when it came to collecting samples for drug testing

I was the doping control site team leader at the athlete village of Sestriere during the games. I went initially with mixed expectations regarding the implementation of procedure and protocol. Logistics are of paramount importance in drug testing, but the “need for speed” and completion needs to be accompanied by a sense of discretion.

It is important that the doping control team maintains the highest level of respect for the athletes’ need for rest and privacy. However, the athletes and their entourage must be co-operative and compliant with the requests of the International Olympic Committee, the Turin Organising Committee and the World Anti-Doping Agency (WADA). Italian law meant that at these games the environment was likely to be more volatile than normal, due to the possibility of criminal investigation for doping penalties.

Random testing is an essential aspect of the doping control process and it can be difficult to co-ordinate discreet, effective and efficient checks. WADA and a team of international experts were helpful in assisting my team to conduct pre-competition tests at Sestriere. Together we developed strategies for causing the minimal amount of disruption to chosen athletes’ schedules. Despite our interruptions the athletes were co-operative and had an appreciation for the sensitivity of our mission.

Conversely, many athletes will be tested in a predictable fashion. Those who are to be greeted with medals on the podium can knowingly expect to be tested and are generally required to comply within an hour of formal, documented notification. A fourth place finish will also guarantee a need to provide a urine or blood sample, or both.

Escorting place-getters to doping stations can be difficult when manoeuvring around the media and congratulatory team mates. This was indeed evident when I escorted some famous downhill skiers to the doping station in Sestriere, following their podium finishes at the downhill, slalom and super G events. Some of these men are athletic superstars — leagues of reporters, cameras and admiring fans follow them everywhere they set foot. This means that it can be a challenge to even stay near one of these athletes. Let alone find an appropriate time to personally notify him or her for testing, away from the “ears and eyes” of the media. In the case of one particular skier, his medical team suggested doing a test in Turin instead, presumably to remove him from the onslaught of attention and allow him to remain unflustered. After discussing it with his medical team and showing my willingness to comply with their wishes (this included arranging a “convoy” for his friends and family), the team relaxed and he gave a sample in Borgata anyway. This serves

to outline the importance of remaining sensitive to the athlete’s needs while achieving full co-operation of all those involved.

Later that evening, the Austrian biathletes and cross-country skiing teams were “raided” by the Italian Carabinieri, in a surprise late-night sweep. This was the first time police have conducted an anti-doping raid on Olympic games athletes and may have been prompted after WADA reportedly tipped off the IOC about the local presence of former Olympic Nordic team coach Walter Mayer. The Austrian was banned from the Olympic games on suspicion of performing blood transfusions at the 2002 winter games. The IOC reported his presence to the police and then conducted tests at the Austrian team’s lodgings while the police searched for drugs and relevant equipment. Criminal prosecution is a hazard that this team will face if caught violating anti-doping regulations in Italy. The Austrian Olympic Committee has confirmed that certain medicines were taken in for testing and the IOC and Italian national police are co-operating in the inquiry.

Stuart Anderson was the doping control site manager for the alpine skiing events and the athlete village at Sestriere. He has also worked as a medical services co-ordinator at previous Olympic Games and Commonwealth Games