DOPING CONTROL IN SPORT

Throughout history, athletes competing at all levels of sport have been confronted with the temptation to improve their performance through the misuse of various substances. Contemporary medicine presents an unprecedented choice of targeted medical treatments intended for management of disease, but also used, contrary to the spirit of sport, to enhance athletic performance. In response to this challenge to the fairness and integrity of sport, the World Anti-Doping Agency (WADA) was created with the goal of bringing consistency and harmonisation to anti-doping policies and regulations within sports organisations worldwide. One of the many tools promoted by WADA to help achieve this goal has been the establishment of the internationally agreed List of Prohibited Substances and Methods (List).

A particularly challenging area for sports physicians is the use of drugs or methods defined as ‘prohibited’ in sport by WADA, where a number of these agents are accepted drugs of choice in the context of some common medical conditions. Physicians without a solid understanding of their obligations to WADA may object to the intervention of an external authority that restricts therapeutic options, arguing that patient well-being is the physician’s primary responsibility.

Nevertheless, sports physicians treating elite athletes must understand that adherence to the anti-doping rules are an extension to the rules of sport. Athletes and physicians must be informed of the List, which was established to address the misuse of drugs for purposes of performance enhancement. The List – which contains some common therapeutic agents – is formulated and reviewed annually by an international committee of experts appointed by the WADA following stakeholder input.

To qualify for consideration for inclusion on the List, a drug must meet two of the following three criteria:

1. The potential for performance-enhancement in sport.
2. The potential for harm when used for ‘non-clinical’ purposes.

The List is non-negotiable and in effect for all those sports and organisations who are signatories to the Code. As of July 2015, there were 677 signatories to the Code. In order to ensure a clean sporting environment, athletes (as defined by their International Federation or a National
Anti-Doping Organisation, NADO) may have to provide their whereabouts and are subjected to drug testing, both during and outside competition periods. Although these initiatives may appear to be draconian and an intrusion of privacy, a generation of athletes have accepted them as a routine and necessary element of elite sport. Athletes and their physicians must be cognisant of the List and the Therapeutic Use Exemption (TUE) process.

THERAPEUTIC USE OF PROHIBITED DRUGS IN SPORT

When there is no alternative but to use a prohibited substance or method, an athlete may apply for a TUE. This is a means by which athletes with genuine medical conditions have the right to valid, essential therapy with the proviso that the athlete needs the prohibited medication and that the use of the medication would not confer an undue performance advantage beyond a return to normal health. In the interests of consistency and integrity, the TUE process carries pre-requisites including the provision of diagnostic evidence and specialist endorsement to meet the TUE criteria embodied in the Code and the WADA International Standard for TUEs (ISTUE 2015). The key criteria are found in ISTUE 2015 articles 4.1 a) to d):

a) The prohibited substance or prohibited method in question is needed to treat an acute or chronic medical condition, such that the athlete would experience a significant impairment to health if the prohibited substance or prohibited method were to be withheld.

b) The therapeutic use of the prohibited substance or prohibited method is highly unlikely to produce any additional enhancement of performance beyond what might be anticipated by a return to the athlete’s normal state of health following the treatment of the acute or chronic medical condition.

c) There is no reasonable therapeutic alternative to the use of the prohibited substance or prohibited method.

d) The necessity for the use of the prohibited substance or prohibited method is not a consequence, wholly or in part, of the prior use (without a TUE) of a substance or method which was prohibited at the time of such use.

If the athlete fulfils the aforementioned criteria, the use of the prohibited substance or methods would be approved by a TUE committee of an established Anti-Doping Organisation (ADO). However, without a valid TUE, the athlete returning a positive drug test for a prohibited substance will be considered to have incurred a ‘doping infraction’ with the attendant consequences, which could include a period of disqualification and subsequent loss of earnings in professional sport.

The international WADA TUE Expert Group provides TUE Physician Guidelines for several conditions that commonly demand the use of prohibited substances. They emphasise the need for an extensive diagnostic work-up and specialist engagement. Examples of commonly encountered conditions for which therapeutic exemptions are sought include asthma (use of certain beta-2 agonists and oral glucocorticoids), attention-deficit hyperactivity disorder (use of methylphenidate or amphetamine), hypogonadotrophic hypogonadism/androgen deficiency (use of supplemental testosterone) and chronic inflammatory bowel disease (intermittent use of systemic glucocorticoids).

These TUE Physician Guidelines are available on the WADA website and are widely used by physicians who manage elite athletes with specific medical conditions.
conditions who are subject to doping control. TUEs are required in advance of use to ensure fairness and a proper evaluation by a TUE Committee. However, it is possible to obtain a ‘retroactive’ TUE if and when certain emergency situations arise where it would be impossible to obtain one in advance. However, the athlete and attending physician still remain responsible for ensuring that a complete record is kept of the medical event or situation for which the prohibited substance is necessary and must be able to provide this information to substantiate the TUE application. Certain non-international and national athletes may also be allowed to apply retroactively depending on the rules of their NADO.

Sports physicians preparing TUE applications must be aware that TUE Committees rely heavily on these applications to understand the diagnosis and treatment of an athlete. In essence, the TUE is a special request for an exemption to the rules due to a legitimate medical condition. Applications that fail to meet the ISTUE criteria and the recommendations in the TUE Physician Guidelines put the athlete’s competitive status in jeopardy and result in unnecessary delays and anxiety for organisers, officials and ADOs, as well as for the athletes themselves. In addition to responsible and ethical care of athletes consistent with the Code, sports physicians should also consider the preparation of detailed, complete and legible TUE applications as a critical extension of their obligation to athletes.

Athletes and physicians may find information on the WADA website (www.wada-ama.org/en/resources) or obtain assistance more directly by contacting ADOs – either NADOs or the appropriate international federation.

ETHICAL CONSIDERATIONS

Elite athletes represent a unique cohort deserving the same quality of clinical care we strive to offer any patient. However, there are professional obligations and ethical considerations implicit in our care of the competitive athlete.

The relationship between physician and the athlete-patient is articulated by the International Olympic Committee and embodied in the Olympic Movement Medical Code. This includes an overarching statement of safety and ethical responsibility, ensuring that, “...sport is practised without danger to the health of athletes and with respect for fair play and sports ethics”. And further, the relationship between athlete and healthcare provider is “...subject to mutual respect”.

Despite the expectations many athletes will have for an accelerated return to sport, this article is not written with the intention of advising doctors how best to treat their patients. The aim is simply to underscore the responsibilities all clinicians have to provide their athlete-patients with an appropriate duty of care, cognisant of international codes unique to sport. It behoves every sports physician to familiarise themselves with these obligations.

Physicians have been accused of living vicariously through the success of the athlete-patients under their care and may have conflicts of interest as an employee of a team. The physician’s chief obligation is for the well-being of the athlete and this must be abundantly clear to all involved. In those situations where reporting of medical information to management (and thus potential breaches of confidentiality) are part of a doctor’s contract, the athlete should be made aware of this situation and be given the opportunity to act accordingly to protect their interests.

Unfortunately, situations arise where medical personnel cross the boundary into unethical behaviour and assist athletes in cheating with performance enhancing drugs. The most notorious of these cases was the involvement of the Government (and physicians) in the former German Democratic Republic, which involved the shameful abuse of athletes with performance enhancing drugs during the period of the 1960s to the 1980s. East German physicians, scientists and coaches all collaborated in systematic drug administration to athletes. This clandestine programme of experimentation involved athletes, predominantly females, who received high doses of potent drugs without concern for moral or ethical principles. Under the pretence of research, thousands of ‘subjects’ were implicated in “...one of the largest pharmacological experiments in the history of sport... running for more than three decades”. The consequences of this era in East German sport and politics were profound and far-reaching. Young female swimmers and track-and-field athletes suffered long-term consequences from excessive dosing with anabolic androgenic steroids.

Every sports doctor should be cognisant of their ethical responsibilities, ensuring that athletes compete cleanly and fairly while receiving appropriate medical treatment
In more recent years, a number of physicians were implicated in the Lance Armstrong/US Postal team scandal. In late 2012, this was described by the United States Anti-Doping Agency in its widely-publicised report as "the most sophisticated, professionalised and successful doping programme that sport has ever seen". This document and subsequent statements provide unequivocal evidence that Lance Armstrong’s Tour de France successes were marred by the use of autologous blood transfusions, recombinant erythropoietin (EPO), testosterone and glucocorticoids. The use of these prohibited drugs and methods were only possible with the assistance and monitoring of physicians. An increasingly vocal body of contemporary medical opinion have specifically declared the misuse of drugs in sport as an unethical and illegal practice and medical associations from most major nations have added their support. Typical of the attitude adopted by most countries is the statement of the Medical Council of New Zealand. In 2010, an updated statement entitled ‘Prescribing performance-enhancing medicines in sport’ was posted on the council website. It states: “Any doctor who knowingly prescribes, administers, traffics, supplies or otherwise assists in the use of prohibited substances, for the deliberate purpose of enhancing sports performance and helping a sports person to cheat, may be subject to disciplinary proceedings and may be liable to a charge of professional misconduct.”

Athletes have been vocal in stating that in the field of anti-doping, it was only the athlete who suffered the consequences of sanctions handed down for doping, even when influential physicians and other members of the entourage continued to ply their unethical trade of prescribing and facilitating the use of performance enhancing drugs. This was addressed in the new version of the Code – Article 2.102 on Prohibited Association: “athletes or other persons (subject to Anti-Doping Organisation rules) may not associate with athlete support personnel who have been declared ineligible due to a doping offence or are professionally or criminally convicted of one.”

SUMMARY

Elite athlete-patients frequently present with unique clinical challenges including, on occasion, the legitimate need to use drugs that are prohibited by the World Anti-Doping Agency in order to treat medical conditions. The List of Prohibited Substances is a non-negotiable consideration for all athletes who compete in sports subject to the World Anti-Doping Code. However, the TUE process is an avenue to allow the continued participation and inclusion of those with medical conditions. In order to ensure that this process does not create a back door to cheating, the athlete and his/her physician must fully comply with the internationally agreed upon requirements as set out in the ISTUE 2015 and TUE Physician Guidelines. Every doctor providing professional services to athletes should be cognisant of their professional and ethical responsibilities to ensure that the athletes compete cleanly and fairly while receiving the necessary and appropriate medical treatment.

References

Chair, WADA Therapeutic Use Exemption Expert Group

Professor
Dunedin School of Medicine
University of Otago
New Zealand

Medical Director
World Anti-Doping Agency
Canada

Contact: david.gerrard@otago.ac.nz