

Editorial

Drugs, Sport, and Medical Practice

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It has been more than 40 years since the tragic, doping-related death of Danish cyclist Knut Jensen signaled the beginning of an unfortunate era in which the use of performance-enhancing drugs has, at times, threatened both the stability and integrity of sport. Since his death in 1960, the world of sport has experienced a variety of crises and controversies as misguided athletes, trainers, coaches, scientists, and physicians have sought to artificially enhance performance with little regard for the implications for sport or for human health.

Sport physicians have unique responsibilities in this area. It is no small privilege to be asked to provide care and counsel to athletes. Foremost among the physician's responsibilities is a concern for the athlete's health. At the same time, sport physicians must demonstrate a concern for the well-being of sport. It seems impossible to contemplate that any physician, mindful of the primacy and duality of these responsibilities, would willingly participate in strategies or schemes to circumvent the rules against doping or the principles that underlie them. The reality is otherwise. Whether it is the sophisticated, state-sponsored, and orchestrated doping of athletes of the former East Germany; the administration of blood transfusions to the U.S. Cycling team in the 1984 Olympics; the prescription and provision of anabolic steroids to Olympic sprinters in Seoul; or the administration of recombinant erythropoietin or plasma expanders to cyclists or skiers there are abundant examples of sport physicians who in their unseemly haste to serve distorted priorities and unscrupulous athletes bring dishonor to themselves and their profession. As doping methods become more complex, involving recombinant techniques and, in the future, one suspects, gene transfer technology, one reality seems inescapable: Doping will not be possible without the connivance and conscious involvement of rogue physicians and other misguided and venal practitioners. As a consequence, it is now more important than ever that sport physicians and their professional organizations take strong stands against doping and eliminate from our ranks those who violate them. Codified standards of be-

havior for sport medicine practitioners, and established sanctions for their breach, would seem to be long overdue. The conscious decision of all sport physicians and scientists to play no role in doping practices would offer new hope that sport might continue to represent competition between humans, not laboratory preparations or the products of genetic engineering or polypharmacy.

In this special thematic issue of the journal, readers will find a broad examination and discussion of subjects central to a contemporary understanding of the problems of doping in sport. We begin with an examination of the disquieting roles that physicians have played in fomenting the modern crisis of doping. Hoberman's scholarly account of attitudes and practices of the past and present will, it is to be hoped, permit the development of a new ethos among the sport medicine practitioners of the future. Elsewhere, Dean reviews the ergogenic and anabolic effects of growth hormone and calls into question its value as a performance enhancer. McKenzie and colleagues examine issues surrounding the use of inhaled beta agonists in the treatment of asthma and the implementation of the eucapnic voluntary hyperpnea test at the Salt Lake City Games. Corrigan addresses the use of techniques designed to artificially enhance oxygen transport and delivery. In a second paper, Corrigan brings us up to date on DHEA and its use by the athletic community. Geiger and colleagues survey the evidence regarding the ergogenicity and performance-degrading effects of both over-the-counter and prescription sympathomimetics, amphetamines, and caffeine. Ayotte and Pipe speak to the current problem of supplement use among athletes and the associated ingestion of banned products—a problem compounded by the current (and appalling) lack of regulation of such products in the United States. Kazlauskas and colleagues describe recent developments in refining approaches to the detection of erythropoietin and propose a general strategy for the detection of compounds in sport. Finally, Mendoza provides an update of current policy developments in the area of doping control.

This thematic issue appears at a time when significant changes are under way in the approaches used to deter and detect doping around the world. The establishment of the independent World Anti-doping Agency (WADA), supported by governments and the Olympic

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Movement, means that overall responsibility for all aspects of antidoping activity will shift to this organization from the International Olympic Committee Medical Commission. The commitment of WADA to the antidoping movement is already under way, and significant financial resources are being offered by this organization to support research. Will it be enough? At the recent Salt Lake City Games, a cache of blood transfusion equipment was discovered in a house rented by the Austrian Nordic ski team only a few days after two Russian and a Spanish cross-country skier were disqualified following the detection in their systems of darbopoietin, an erythropoietin analogue. (Sadly, the medals they were awarded in other events were not rescinded and are currently the subject of much controversy.)

A review of the "banned list" has begun under WADA leadership. Some would argue that this process is long overdue and will permit emphasis to be placed on the detection of drugs and other compounds that are truly performance enhancing. It is important in this process that procedures be developed that would permit the use of otherwise banned drugs to treat established medical disorders. At the same time, mechanisms must be developed to identify the reckless or inappropriate use of medications in sport (the corticosteroids come to mind), and permit sport authorities the opportunity to detect the use of drugs deemed to harm the image of sport ("social" drugs of abuse, etc.). Important as they are, these latter two categories of the misuse of drugs are not "doping" in the accepted sense and should be dealt with by means other than the use of the antidoping rules. Such an ap-

proach would maintain support for vigorous antidoping programs (particularly among athletes) while permitting a more effective examination of untoward medical practices in sport via a "medical review" process. The development of "Codes of Conduct" would permit sport authorities to more appropriately deal with the use of "social" drugs identified in the course of conducting doping controls. Such changes would, we are confident, be welcomed by sport physicians who seek clarity and focus in the catalogue of compounds whose use is, justifiably, banned in sport.

Although this thematic issue appears to focus on elite athlete, the problem of doping, like many in sport, is present at every level. Those who care for recreational or community athletes have special responsibilities and unique opportunities to address this problem. It is incumbent on all team physicians to be familiar with this issue. Perhaps it is unrealistic, human nature as it is, to expect that we can ever rid sport of doping.

It is not unrealistic, in our view, to expect that all sport physicians will adhere to a fundamental code that precludes any participation in the counsel, countenance, provision, or prescription of drugs and other compounds banned in sport. Such would seem to be a fundamental expectation of any practitioner privileged enough to provide care to athletes, regardless of the level of competition. We hope that this thematic issue, *Drugs and Performance-Enhancing Agents in Sport*, compels us to pause and take note of the responsibility each of us has to our profession, to sport, and to the athletes entrusted to our care.