Author's response to reviews

Title: Doctors, doping and anti-doping: dark sides of medicine?

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Version: 2 Date: 18 January 2007

Author's response to reviews: see over
Answers to the reviewers

Reviewer 1 (Norman Fost)

Reviewers comment
The main body of the paper is an excellent critique of the conceptual weaknesses of present policies regarding performance enhancing drugs. The discussion of the physician’s role is limited to one page at the end, with a few references to physicians throughout the paper, but the title does not reflect the main points of the paper. Similarly the abstract emphasizes public health implications, which is a minor theme in the paper, so the abstract could also be rewritten to better reflect the main issues in the paper.

Answer
We have changed the title to: Anti-doping: a critical appraisal. We have also changed the abstract to better reflect the contents of the paper.

Comment
1. (5,2) You argue that the failure to detect all cases is an argument against punishment of any cases. This requires further argument, as it would be true of almost any regulatory system that it would not reach all rule-breakers. One of the functions of the criminal justice system (or other regulatory systems) is deterrence, for which selective prosecution of a small percent of cases might be effective. Unequal prosecution might be an injustice if it were non-random; e.g., if disadvantaged groups (such as persecuted ethnic minorities) were selectively punished, but you don’t make that claim here.

Answer
We now have developed this section incorporating your suggestions and completing our arguments.

Comment
You do suggest (without documentation) that athletes from low-income countries are more likely to use older drugs which are more likely to be detected by current testing techniques, but use Canadian Ben Johnson as an example. He was not from a low income country, and Johnson was by then a world-class athlete who probably had access to more information and perhaps drug sources than most athletes. Most of the celebrated cases of athletes who got caught do not seem to be from low income countries. You should document the claim, or acknowledge the opposing evidence.

Answer
The point is that Ben Johnson was cited for illustration of the use of stanozolol in 1988. By 2004, at a time when stanozolol had become an "old" doping agent, three athletes were found positive for stanozolol, two from Russia and one from Puerto Rico. We have taken out the reference to Ben Johnson to prevent confusion.

Comment
2. Similarly, at (6,2,3) The failure to “eradicate” a problem is a straw man and not a compelling argument against a program which may be seeking to reduce or discourage the problematic behavior. We wouldn’t say that prosecuting murderers or tax evaders is problematic if all violators are not caught. You frame this as an inequality problem, but
that has weight only if the inequality is systematically biased, particularly against disadvantaged groups. You don’t provide evidence for that, and the numerous examples of elite athletes from the US; leading competitors in the recent Tour de France; wealthy baseball players etc suggest that those who are well off do not seem to have special protections.

Answer
We have developed this part of our argument, aiming at greater precision. We now write: “The response might be that the function of testing is as much a deterrent as a mechanism to ensure a level playing field. Indeed, one might claim that failure to detect all cheats is not an argument against striving to do so, since this would mean that perhaps all forms of regulatory systems are inadequate. However, we question this argument, for while it is common for anti-doping advocates to analogise their work to the criminal justice system, this analogy does not hold. In fact, sports are particular because its social value relies on whom it celebrates as the winners of competitions. In sport, if the system is ineffective, then it destroys the very identity of elite sport and its embodiment of purity and virtue. In contrast, normative systems designed to police society at large do not make high minded assumptions about universal virtue and are therefore more resilient as regards the continued existence of transgressions. In addition, even though in elite sports repression may have led to a reduction in doping such is not the case in amateur sports and outside sports, where the available evidence clearly indicates continuous use of performance enhancing substances.”

Comment
3. (7,1) You seem to be arguing that off-label use (or innovative therapy using unproven drugs, or using established drugs for unproven or untested purposes) is morally problematic. That requires further argument, since innovative therapy is common and widely accepted in standard medical practice, and is not prohibited by law. It is estimated that 80% of drugs prescribed for children have never been tested for safety or efficacy in that population; it doesn't follow that all such prescriptions are problematic. (Ref: Fost, Fost N. Ethical dilemmas in medical innovation and research: Distinguishing experimentation from practice. Semin Perinatol, Jun 22(3):223-32, 1998).

Answer
We have now rephrased the relevant sentences to make clear that we are describing the argument against off-label use in sports, without actually endorsing this argument. Mentioning the argument is appropriate, since it is indeed used by advocates of anti-doping. The argument relies on the distinction between therapeutic vs. non-therapeutic use, the latter being considered to be against prevailing medical practice. In Switzerland the medical establishment has explicitly forbidden the non-therapeutic use of medical technology by doctors, also in sports. We have adapted these paragraphs to make the point more clearly.

Comment
4. (7,2,9) You seem to be asserting that it is immoral for a physician to facilitate a patient’s behavior that might result in harm to that patient. This would seem to preclude most of sports medicine; i.e., helping an athlete recover from an injury to a point where he can return to action, with the risk of additional or worse injury. The mountaineering example is relevant: would you think it immoral for a physician to prescribe diamox to reduce the likelihood of altitude sickness, if the prescription influenced the person’s willingness to climb? If oxygen required a physician’s prescription, do you think it would be immoral to provide it to someone interested in climbing Mt Everest?
Answer
We agree with you. However, this argument is again one that is often advanced by anti-doping advocates, sometimes in a quite strident way, as exemplified by the recent open letter by WADA medical director Dr Garnier (see WADA website). We therefore present this argument to discuss it now more in detail.

Comment
5. (7,3,3) The claim that certain risks are constitutive of a sport seems to assume that sports have some predetermined or inherent essence, which requires further argument. Sports are man-made activities, with rules that can be changed at any moment. American football, for example, does not require tackling; a milder version, called “touch football” has all the essential elements with little risk. Similarly, it is not required that gymnasts perform risky moves on a balance beam or parallel bars; they could be banned. See also (8,1,3): “…certain risks that must be accepted. "Why must they be? You start to address this issue in the next paragraph, by acknowledging that the “inherent” risks of the sport can be reduced. But they are not inherent. Boxing, for example, could be carried out like contemporary fencing, with protective gear and electronic sensors recording when a combatant had scored a “hit.”

Answer
We agree with you. We have adapted the text accordingly.

Comment
6. (10,4) You seem to be criticizing the focus of drug screening among elite athletes, suggesting the focus should be on the more common use by amateur athletes. But most of the paper argues against screening in the elite groups. If that is the case, why would you want to extend screening to amateur athletes? (e.g, at (11,2,7) you say the ethical basis for prohibition of ergogenic drugs is “weak at best.”). You also criticize screening of elite athletes as an ineffective public health measure. But public health is not the major purpose of the screening programs.

Answer
We criticize drug screening among elite athletes as being based on health-related arguments which we find ill-conceived. We certainly do not argue for extending this screening to the amateurs and general population but make the point that from a public health perspective, most efforts should be directed towards amateurs and the general population, not by testing or other repressive measures but rather by means of health promotion and empowerment. We have changed this section in order to better reflect our argument.

Comment
7. (12,3,10) You seem to be suggesting that it is unfair to single out athletes as role models when other public figures are also role models. This is similar to the earlier problem of criticizing drug screening if it doesn’t catch all offenders. Assuming athletes are role models, and do affect the likelihood of a juvenile engaging in risky behavior, it isn’t self evident why the existence of other “bad” role models is an argument against measures to reduce the adverse influence of athletes.

Answer
We have added the following paragraph: ‘Our point is that the intrusive monitoring of athletes actually undermines their status as role model, since it stigmatizes athletes as
people who, without surveillance, will behave improperly. Thus, the burden is unreasonable not because it is unfair, but because it constitutes an attempt to orchestrate role model status which we consider to be deceptive and antithetical to what role models should be. In any case, there is no obvious reason for why testing for THC or similar drugs should be a matter of public concern, unless one also requests tests from other such public figures. If the response is that testing should be applied to other such people, then at least part of our claim would be redundant. However, we believe that there are good reasons for why such surveillance practices would be quite inappropriate in a liberal society. One might also raise questions about the role model status of most athletes. After all, while all competitive athletes are subject to anti-doping rules, only a few have a high public profile or a high salary. The majority have no greater public role than, say, a teacher or a parent. Yet, we do not hear pleas to test these and other people for illicit substances on account of their being role models.'

Comment
8. (15,2, 2) There are several problems in the closing paragraphs. First, you equate "preserving the patient’s best interest" with maximizing health over all other values. This seems like strong paternalism without an argument to support it. Second, elevating "preservation of health" to an apparently absolute requirement would seem to preclude support for any risky behavior that was not itself directed at "preserving health." This seems inconsistent with the preferences of almost any competitive athlete in a risky sport. You try to avoid this difficulty by arguing for “proportionality” in the next paragraph, stating it requires “us” to decide which health risks are acceptable for others, namely athletes. The title of this section suggests that “us” refers to physicians, who would presumably replace the current administrators of various sports in deciding what drug-related risks athletes would be allowed to take. This requires further argument as to why competent adults should not be allowed to decide for themselves which risks to assume. The discussion also assumes that physicians are a necessary intermediary in gaining access to drugs, but recent history shows that is not the case, nor is it self-evident why it should be so. Finally you state physicians should not be punished for providing “illicit” ergogenic aids (unclear what “illicit” means in this context), but should be “accountable” for ill effects. It isn’t clear what “accountable” means if not linked with punishment. Your standard for inappropriate conduct by a physician is prescribing something that has “disproportionate iatrogenic ill effects,” but that is the position of the current mavens who write the rules, and you obviously disagree with their judgment. So why would the same decisions be any better if made by physicians, or by whoever would be holding them accountable (? Courts, ?licensing boards). Perhaps you can’t say any more than Waddington’s “…much more thought is needed to establish principles of good practice.”

Answer
We agree that our proposal could be read as rather paternalistic and have rewritten this section taking into account your suggestions. We do indeed adhere to a form of proportionality principle to regulate the sport physician’s behaviour. Nevertheless, even though it may well be the case that those who presently “write the rules” do likewise, we believe that in a context that accepts ergogenic interventions straightforwardly, applying this principle would be an altogether different matter since the interventions and consequences being contemplated are not the same.

Comment
1. (2,2,7) Not clear what you mean by “doping like behaviour.”

Answer
Has now been defined as use of performance enhancement outside sport.

2. (5,1,4) “There is no parting….” I don’t understand this sentence.

Answer
Sentence rewritten.

3. (7,2,4) “Require” does not seem the right word here. No one argues that a physician is required to prescribe performance enhancing drugs.

Answer
Sentence rewritten.

4. (12,1,7) “…in whom substance abuse if a real health issue.” Not clear what substances you are referring to. More detail and a reference would be helpful to define what you mean by “a real health issue.”

Answer
Section rewritten.

5. (12,2,5) You omit the personal quest for money, fame, competition, or the thrill of winning, which probably drive elite athletes as much as or more than political or economic pressure. Re the latter, do you mean “incentives” rather than “pressure”?

Answer
We have added personal quest for money, fame, competition, or the thrill of winning.

Comment
1. (6,4) You point out some of the problems in claiming there is a distinction between treatment and enhancement. You might also point out that anabolic steroids could be defended as treatment, as one of their major modes of action is probably to increase the rate of repair of micro-tears of muscle fibers, allowing the athlete to train more intensely; i.e., they work by doing what they were originally intended to do in medical settings - increase the rate of repair of injury.

Answer
We now include this argument.

2. (9,4) The sections on the problems in distinguishing enhancement from treatment could benefit from a broader literature review (e.g, Parens E, Enhancing Human Traits; Fost N. Is the treatment/enhancement distinction useful? In Allen DB, Fost N, (editors), Ethical Issues in Access to Growth Hormone Therapy: Where Are We Now? The Endocrinologist 2001;11(#4, Supp.1):72S-77S.)

Answer
We now refer to these references.

3. (13,1,2) The assertion that elite athletes have no greater effect on youth than school teachers seems implausible. But even if true, why would it not be an argument for also discouraging drug use by teachers, rather than to test no one?
Answer
We now have developed the argument on role models and have made our point more explicit.

4. General comment: The literature review is very good with regard to medical issues, but does not include authors/papers/books that have addressed many of the issues in the paper (e.g., Mehlman; Parens; Robert Shapiro; Fost).

Answer
We have in this paper indeed more concentrated on the medical issues. But we have now added several new references to make the review also reflect the other areas.

Reviewer 2 Julian Savulescu

 Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Comment
The central theme could be made clearer from the outset. What are the main reasons the authors believe are important to relaxing doping controls?

Answer
We now end the introductory paragraphs clearly stating the four main themes we discuss in the paper.

Comment
The authors do not adequately address the major objection to doping: that sport should be a test of natural potential. Training and environmental manipulation can be used to bring out natural potential but we should not alter it. Sport is just a test of biological (and psychological) potential.

Answer
We now tried to make clear that we do not endorse an essentialist conception of any sports discipline. In this sense, there is no such thing as a definite natural potential to be tested.

Comment
The authors claim on p 14 that relaxing doping controls would not increase the use of doping - that seems implausible. They state there is "no evidence" to suggest use of performance enhancers would increase but it does seem plausible that use would increase with legalisation, as it has with all prohibitionist policies.

Answer
We agree and have changed this section.

Comment
The section on what the physicians' role should be seems tangential to the central theme.

Answer
We agree and therefore have changed the title of the manuscript and have changed the way we discuss this aspect.