

# A safe and level playing field should be the goal of drugs in sport policy

By Dr J

In case you are sick of the subject, this is another (lengthy) drugs in sport piece. Fortunately it won't fall into either category of clichéd article along the lines of: (1) Guess what, lots of Olympic medal winners are taking drugs and getting away with it? (I wrote one of these in a Dr J. during the 1990s and have read similar articles 100s of times since) or (2) because of (1) this is all too difficult, let's just make drugs open slather and, at the cost of a few athletes dying here and there, at least we can end the hypocrisy of applauding athletes who are only up on the podium because they have beaten the system.

I am a big supporter that sport needed a World Anti-Doping Agency (WADA) because at least we now have a common standard that we can criticise and lobby to have changed, where appropriate. It is unfortunate but realistic that performance-enhancing drug use in professional athletes seems to be heading the same way as paying tax is treated by business – that is, an area where everyone tries to get away with as much as they legally can.

In one way we are developing a more mature attitude to drugs in sport, where it is appreciated by the majority that there is no black and white with respect to performance-enhancing substances. If a performance-enhancing drug is on the banned list, an athlete who takes it or a doctor or conditioner who prescribes it is considered to be a cheat (eg, anabolic steroids). Yet, if a performance-enhancing drug is considered 'legal', an athlete who declines to use it or a doctor who doesn't prescribe it is not on the cutting edge (eg, creatine). The boundaries get blurred more when there are drugs that move back

and forth from the list of prohibited substances (eg, pseudoephedrine). And they become almost impossible to fathom when certain performance-enhancing drugs are approved for some competitors in an event or competition but not for others, to which I will return later.

My personal view on the criteria for permitting drug use is as follows:

- 1) a drug should either be banned or legal in a certain sport, not banned for some athletes and legal for others;
- 2) there is no point banning a drug if it isn't performance enhancing in a particular sport or if you can't enforce the ban (ie, there is no test for detection);
- 3) given that a drug helps performance and can be tested for, the criteria for banning should be based on whether or not the potential for health damage by overuse/abuse outweighs the potential for inadvertent use or need for genuine medical use in some athletes;
- 4) for drugs where detection of the actual drug is problematic but detection of its net effects is easy (and the classic here is EPO and packed red cell volume), it is much more sensible to ban the effect rather than the drug itself (ie, ban excessive blood thickness, which is what presents the health problem anyway, rather than banning EPO). I agree with this section of the argument of Savulescu et al, published recently in BJSM, but not the rest of the open-slather approach<sup>1</sup>.

The big advantage of WADA is that there is now a system in place that

can stop rogue countries from failing to enforce doping criteria as well as other countries. The big disadvantages from where I see it at the moment are:

- 1) due to over-officiousness of WADA, excessive resources are now going to be spent complying with Therapeutic Use Exemption (TUE) Guidelines for drugs that shouldn't even be on the banned list (eg, cortisone injections and creams, salbutamol);
- 2) the TUE process may become as much of a rort in certain countries as the previous system, with athletes trying to invent proof of suffering from as many conditions as possible to allow access to as many 'banned' performance-enhancing drugs as possible;
- 3) because of testing limitations we are often shooting small offenders with a cruise missile (ie, stripping Olympic Golds off someone who tests positive for pseudoephedrine) whilst we are firing a paper plane into the big offenders (those who use high doses of EPO and HGH).

Anabolic steroids are the prime category of drugs that should be cited to show why use of certain drugs in sport *should* be illegal.

The stories of East German female athletes who have suffered from infertility in the years after their athletic careers are exhibit A in the argument against the use of anabolic steroids. Like all drug categories, there are grey areas, but at least with steroids we are more united in being hard across the board in this category.

An exception exists in some circles for the so-called 'soft' anabolic steroid precursors, like DHEA

and androstenedione, which are prohibited in most sports, but have been legal recently in US Major League Baseball. Mark McGwire, who broke the MLB season record for most home runs in 1998, admitted to the use of androstenedione as a performance-enhancer, and why wouldn't he when it was legal in that sport at the time he broke the record?

Although MLB has tended to be an exception, most sports have a zero tolerance on anabolic steroid use amongst athletes, which I fully support. The days of doctors making exceptions for athletes recovering from (say) knee reconstructions are past us, and for good reasons. Yes, there is no doubt that, if your quads have wasted after a knee reconstruction, anabolic steroids will help you regain some of the bulk, and this was the reason why some of these drugs were prescribed by respected sports physicians in the late 1980s and early 1990s.

A fairly fortunate side effect might be that your other muscles will hypertrophy as well, as Rodney Howe discovered in 1998. In his rehabilitation from a knee reconstruction he took anabolic steroids (perhaps with a semi-legitimate intent of building his quadriceps strength back up) and, rather than have a mediocre year which tends to follow major knee surgery, he temporarily became the best forward in the NRL competition. When he failed a drug test for anabolic steroids, he was given a hefty suspension, which I feel was the correct decision, despite the fact that he cited his knee problems as being the rationale for using steroids.

It still angers other countries that the USA track and field medical officials, until only a year or two ago, apparently turned a blind eye to positive anabolic steroid samples if the athlete could cite a 'legitimate reason' for using the drugs.

Stimulants are harder to cast in the same light as anabolic steroids, as there are and always will be 'soft' stimulants that the majority of people

use. Caffeine is almost ubiquitous, and is a good drug to think about if anyone tells you that stimulants don't have addictive properties. Caffeine makes you do your job better, perform better in IQ tests, probably run faster and, fortunately, if you can manage to keep your heart beating in sinus rhythm, doesn't have too many side effects. Pseudoephedrine has been studied quite extensively in recent years and none of the published papers has shown any great performance effects from a standard dose.

However, the way that so many football players seem to love gobbling them down before games suggests to me that there may be a slight performance effect from higher-than-standard doses. The fact that so much money can be made from buying Sudafed and melting it down to form heavier speed to resell at nightclubs also casts this drug in a bad light. Even despite my suspicions, the fact that every second over-the-counter cold medication contains pseudoephedrine means that I would support keeping it off the 'banned' list.

The risk that a heavy user might be gaining a performance advantage and/or will suffer health problems is outweighed by the injustice that occurs if an athlete is disqualified after inadvertent use (which is unfortunately what happened with Andrea Raducan, who lost her Gold in the gymnastics at the Sydney Olympics).

The stimulant which seems to give rise to the most flagellation in WADA circles is salbutamol, which is an important (and potentially life-saving) drug for the 10%-20% of athletes who are asthmatics. There is some evidence that salbutamol has performance-enhancing effects<sup>2</sup>, and history has shown that more Olympic medallists have had salbutamol in their system than there should be asthmatic athletes, which has led to the suspicion that some athletes may have been taking salbutamol for reasons other than asthma attacks.

The new WADA guidelines want athletes to show 'proof' of asthmatic

status in order to be able to take salbutamol, but why not just make the drug legal? Even if salbutamol is a major performance-enhancer (and I am not convinced it is), would it be fair that only asthmatics could access these properties of the drug? It definitely wouldn't be fair to ban all asthmatic athletes from competition for using salbutamol and, since excessive use isn't likely to lead to any major harm (because salbutamol has minimal cardiac effects, a bit like caffeine), why not just make salbutamol a legal drug? Does anyone seriously believe that non-asthmatic Olympics athletes who are inspired to cheat, and who apparently have no problems finding doctors and physiologists who can get them EPO and HGH on the quiet, would have any problem finding doctors and physiologists who can help them fudge the results of an exercise challenge test so they can be declared asthmatic?

The over-officiousness of the authorities to regulate an important and pretty harmless drug like salbutamol arises, in my opinion, from their impotence in being unable to regulate the heavy drugs that are commonly being abused, such as HGH and EPO. Make salbutamol and cortisone puffers completely legal, make insulin legal, make anti-epileptics legal etc, etc, as these drugs have a much greater therapeutic importance than potential to lead to athlete death through abuse.

If you accept the arguments that 'soft' stimulants such as caffeine, salbutamol and pseudoephedrine should all be legal, then what about the amphetamine-type drugs?

A line has to be drawn somewhere, because these stimulants are definitely very performance-enhancing in most sports. The heavier you travel up the stimulant pathway, the more likely that cardiac arrhythmias and even arrest can occur, and of course the more potential performance-enhancement you can get. Horses, greyhounds and humans all run faster and have more endurance after using amphetamines, but there have

probably been quite a few deaths in the past (particularly in cyclists) from their use.

I don't have any problem with inclusion of amphetamines on 'banned' lists of drugs, but then I do have a big problem with these drugs being banned and then exceptions made for certain athletes.

The common and now-obvious loophole for being granted 'approval' to use amphetamines is the use of Ritalin for the condition known as ADD (Attention Deficit Disorder). Even though other experts are particularly cynical about the use of Ritalin for ADD, I am happy to listen to expert psychiatrists who claim (with plenty of experience) that Ritalin is very helpful in a clinical setting for ADD patients.

The three big questions I have over Ritalin are:

- 1) Is denying an ADD patient his/her Ritalin more similar to denying a diabetic his/her insulin or more similar to denying the post-knee reconstruction patient the anabolic steroids to regain quadriceps strength?
- 2) How much performance-enhancement does Ritalin really give in strength and power sports and, whatever it is, is it fair that only ADD-sufferers get this advantage?
- 3) Most importantly, since there is no objective test for how much Attention Deficit one really has, how the hell do you stop an athlete 'faking' the symptoms and signs of ADD in order to steal a march on the field by getting access to a strong stimulant?

As far as I am aware, there is only one trial showing the effects of Ritalin in ADD patients<sup>3</sup> (which showed it helped some aspects of performance, and of course doesn't answer the question of whether it helped by 'curing' the condition or whether it just helped performance, because stimulants just 'help'). I'm sure Ritalin helps you stay concentrating for

longer and I'm equally sure that it helps you run faster. Is it fair that some athletes are given this privilege but others are not?

ADD, whether or not you believe it is overdiagnosed, is a disease of context. So, for example, is 'low sex drive'. If a couple is happily married and both partners want sex once or twice a fortnight, then they are both considered 'normal'. If people who only want to have sex once or twice a fortnight are unfortunate enough to be married to partners who want sex once or twice a day, they might genuinely be diagnosed as having an arousal disorder. Of interest, a psychiatrist might prescribe someone testosterone in this context, to treat the arousal disorder (and believe me, if TUEs keep going the way they are, some athletes will come up with this as a reason for wanting anabolic steroids).

If you have a job of a certain type, such as a rock musician, actor, artist, chef, advertising executive, opinion journalist, stand-up comic etc, etc, you may only ever rarely be required to sit at attention listening to a person who you consider boring, and therefore it would be highly unlikely that you might be diagnosed with ADD (just as someone who was married to a partner who wanted sex once a fortnight would be unlikely ever to be diagnosed with an arousal disorder). If you are a schoolkid, your life is all about sitting at a desk and listening to someone give instructions, and you might be much more likely to be considered to have ADD if you don't like listening.

A professional football player a few decades ago would never have been told he had ADD, partially because the condition wasn't recognised and partially because the average team preparation meeting went for 10 minutes rather than three hours. It is quite legitimate to diagnose a player with having a mild variety of a psychiatric condition (ADD) if he (the player) always snaps at the coach when he tries to explain a complicated play for the fifteenth time and, in the context of modern

football, long team meetings are now necessary.

There isn't a blood test or a scan that you can have which diagnoses ADD – it is all about context, and whether you can behave in a manner that is considered appropriate by those around you during your everyday duties.

Unfortunately, due to the combined failings of our school system and our pharmaceutical industry, we have reached a situation where a large proportion of our male schoolkids need to be treated for ADD in order to fit in with the system in which they find themselves.

As the worst behaved kid in the class gets put on Ritalin for ADD, the pressure then falls on the next worst behaved kid to take the same drug. Apparently he can usually buy it from his mate sitting next to him in the back row of the class for the going rate of \$1 per tablet. In the truck driving industry, the fact that many of your competitor truck drivers are taking amphetamines and can therefore do the Sydney to Melbourne drive in seven and a half hours puts pressure on other truck drivers to do the same. The expectation that badly-behaved boys will take Ritalin is now as ingrained as the expectation that long-haul truck drivers will take it (or something similar) to stay awake longer.

Although Ritalin is a banned drug, there is a perceived need for medical authorities to grant 'exemptions' for athletes to take it under the TUE system, based on medical need. I don't have any experience with these panels, but apparently it is not uncommon for TUEs to be granted for Ritalin for ADD, based on the opinion of two independent psychiatrists (who are diagnosing this condition entirely on symptoms and signs rather than any investigations).

In the USA, Mark McGwire inadvertently opened up the debate on androstenedione in MLB by being one of the very top players in the sport who had his use of the drug made public. In Australia we now have a similar case with Willie

Mason, who is one of the very best players in the NRL and who it has been widely reported has been given a TUE to take Ritalin. I don't want to comment on the appropriateness of the diagnosis (as some media commentators in Sydney have at length) other than to say that Willie is being looked after by an excellent sports physician Hugh Hazard, who has the respect of the sports medicine community.

I am fully prepared to accept that, if this diagnosis (ADD) has been made by expert psychiatrists, it is correct. I do however think that we should question whether an expert panel should be granting approval for any particularly players, with ADD or anything else to take amphetamine-type medications (which are strong enough to be on the banned list for other players).

Willie Mason, for those in the southern states who haven't caught up in the soap operas surrounding his Rugby League career, is a bit like your Shane Warne or Jason Akermanis figure of the NRL. He is a bloody good player and a character who (when not on media ban) speaks candidly and, some would say, sometimes without thinking enough before pressing the play button on his mouth (a bit like this writer, so I have some sympathy towards him).

His ADD details were made public during a relentless barrage of criticism that was aimed at Willie's direction in the Rugby League silly season, and I would like to refrain from commenting on any of the controversies in which he was involved earlier this year other than the TUE issue. Despite that Willie has copped more than his share of criticism, he is, unfortunately from the viewpoint of not wanting to single him out, the only NRL player whose Ritalin use is in the public domain (apparently there are others but we don't know who they are due to medical confidentiality).

What should be debated in medical circles (not hysterically à la Sydney

talkback radio), is whether or not Ritalin should be a drug for which ADD-athletes can get TUEs. Actually that shouldn't just be ADD – Ritalin is also approved for the condition of narcolepsy so, if you have enough late nights and keep falling asleep during team meetings (as opposed to getting up and wandering around the room), there would be an opportunity for Ritalin to help you in this situation as well.

The 'recommended' uses for amphetamine-type drugs don't end just there – it is a popular class of weight loss drug. How are we to say that a javelin thrower who has a prescription for Duromine for weight loss deserves it any less than a javelin thrower in the same competition who got a Ritalin prescription for ADD from the same psychiatrist? How do we draw the line here and not allow another javelin thrower in the same competition an anabolic steroid prescription for sexual arousal disorder, as long as there are two respected psychiatrists who write that the athlete definitely has the condition?

Willie Mason's performance history for the year in 2004 (broken into pre- and post- Ritalin periods, according to the time the Daily Telegraph reported that he gained a TUE for the use of Ritalin<sup>4</sup>) is detailed in Figure 1. It shows an apparently impressive rise in metres gained per match once he gained the TUE. It is notable that this rise was not statistically significant (so it could have been due to chance that his performance was better towards the end of the year).

There is very little evidence to fall back on to work out if Ritalin is going to be a performance-enhancing stimulant in football players or sprinters, with or without ADD or narcolepsy. I know we need a double-blind crossover trial to see whether you can sprint faster on speed versus placebo, but I think I already know the answer. Football players think that pseudo-speed (Sudafed) makes them go faster, so they wouldn't need convincing about the real stuff. They won't be any less

convinced that stimulants help you after they have watched Willie Mason win the man-of-the-match award two weeks in a row in the 2004 NRL Preliminary and Grand Finals.

It shouldn't surprise us that, when drug authorities made a soft-stimulant like salbutamol 'banned' in sport, except for asthmatics, suddenly there were a whole lot more asthmatics cropping up at the Olympics. What worries me is that if we keep the current status quo going on TUEs for Ritalin, football players might become like truck drivers or, I hate to say it, eight-year-old boys in Australian schools. Are classrooms less disruptive now and the trucking industry safer because large percentages of people in them are taking stimulants?

Some psychiatrists may argue that, if we give Ritalin to a quarter of the population of disruptive NRL and AFL players, we will have a better-behaved group of professional footballers. The problem is that, if keeping up with the competition in sport means getting diagnosed with ADD by a psychiatrist, players are going to have an incentive to behave badly in order to get the ADD-diagnosis to be given the legal imprimatur to take speed.

If speed infests professional football like it has the schoolyard and the trucking industry, then the battle to stop football players from behaving badly is going to be a losing one, not to mention the battle to create a level playing field in sport.

#### References

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