**Hyperandrogenism and the IAAF’s Eligibility Regulations for Female Classification - Fair, Meaningful or Necessary?**

On 23 April the IAAF issued new Eligibility Regulations for Female Classification (Athletes with Differences of Sexual Development) which come into effect from 1st November 2018. The Regulations cover track events from 400m up to and including a mile and require any athlete with a “Difference of Sexual Development” who has a level of circulating testosterone of five nmol/L or above and who is androgen-sensitive to meet certain criteria to compete in those events in international competition or to set a world record at any competition. The criteria are as follows:

1. The athlete must be legally recognised as female or intersex.
2. The athlete must reduce her blood testosterone level below five nmol/L for a period of six months.
3. Thereafter she must maintain her blood testosterone level below five nmol/L for as long as she wishes to compete.

Athletics’ history with gender verification issues is a long and controversial one from Dora Ratjen’s disqualification following the 1938 European Championships, through the crude physical inspections introduced in the 1950s and 60s, chromosomal testing introduced in time for the 1968 Olympics and to the IAAF’s 2011 Regulations Governing the Eligibility of Females with Hyperandrogenism, which featured so prominently in the Dutee Chand case. Along the way various individuals have suffered from public scrutiny and humiliation due to their biological makeup. Ewa Klobukowska, for example, the Polish sprinter who was banned in 1967 for failing a chromosomal test even though it later transpired she was Barr Body positive and that the X chromosome she possessed was inactive; the Spanish hurdler Maria José Martínez-Patiño who had passed a gender verification test at the 1983 World Championships but was quietly withdrawn from the 1985 World University Games when she failed another test and who bravely decided to publicise her situation, she was androgen insensitive and did not benefit from increased levels of androgens in her blood; Caster Semenya, the South African middle distance runner, who has been subject to testing and intense scrutiny since 2008, and who many suspect the new Regulations were designed to target; and Dutee Chand herself, the Indian sprinter whose challenge to the previous regulations resulted in their suspension by the Court of Arbitration for Sport on the basis that there was insufficient scientific evidence that testosterone produced increased female athletic performance.

They are designed, according to the IAAF, to ensure *“fair and meaningful competition within female classification”[[1]](#endnote-1)*. As the President of the IAAF Sebastian Coe stated at their unveiling:

*“As the International Federation for our sport we have a responsibility to ensure a level playing field for athletes. Like many other sports we choose two classifications for our competition – men’s events and women’s events. This means we need to be clear about competition criteria for these two categories. Our evidence and data show that testosterone, either naturally produced or artificially inserted into the body, provides significant performance advantages in female athletes. The revised rules are not about cheating, no athlete with a DSD has cheated, they are about levelling the playing field to ensure fair and meaningful competition in the sport of athletics where success is determined by talent, dedication and hard work rather than other contributing factors.”[[2]](#endnote-2)*

The new Regulations are unsurprisingly proving controversial even before their full implementation. The fundamental problem is that while athletic competition is starkly divided into male and female categories the biological division of the sexes is not so binary. That the former is necessary to promote meaningful competition is necessary is relatively apparent. The occasionally mooted suggestion that all athletes regardless of gender should compete against each other would overcome difficulties with gender classification but would, as any brief analysis of athletic results over the years shows, lead to a situation where female athletes would be unable to seriously challenge for wins or medals. The difficulty arises from fitting the spectrum of biological sex that occurs in nature into this binary division.

There are several potential solutions but all are problematic. Removing gender classification entirely has already mentioned. There could also be a move away from the binary division and the introduction new and more numerous categories of classification, somewhat akin to the Paralympic classification. However, such a move has numerous downsides. The number of elite athletes who have a Y chromosome with hyperandrogenism was estimated by a 2014 IAAF study to be about 7 in 1000. Introducing new classifications would relegate some of such athletes to a much smaller pool of competition, which would be likely to lessen the impact of their achievements. There would inevitably be disputes about classification decisions, as arise with Paralympic classification. Multiple categories of classification would complicate sporting competitions and, whilst it might be argued that the Paralympic movement copes with this, if there are to be more numerous classification categories based on what are natural biological variations why should there also not be categories for different heights or weights?

A further solution would be to ignore hyperandrogenism altogether and consider it simply a natural characteristic that might provide an advantage to certain individuals. After all elite athletes are almost without exception individuals who possess physical and mental characteristics out of the average human range. The average man or women on the street is unlikely to be able to compete and win against those at the top of their sport no matter how much training and effort they put in. Even within the grouping of elite athletes there is wide variation. Most could not expect or hope to beat individuals like Usain Bolt or Michael Phelps who benefit from natural, but extraordinary, physical advantages suited to their particular disciplines. Those who oppose this argument cite the significance of sex characteristics and in particular testosterone in athletic performance as raising them to a different level to other biological differences and one that requires action by sports governing bodies.[[3]](#endnote-3)

If these other potential solutions are excluded one is therefore left with the need for regulation of the sort introduced by the IAAF, but do the new Regulations meet the need for fair and meaningful competition as posited by the IAAF on their introduction?

There are a number of points that can be cited in support of the IAAF’s position.

First, the new Regulations only apply to those athletes who are androgen-sensitive. This is significant because it should avoid those such as Ewa Klobukowska or Maria José Martínez-Patiño, who do not biologically benefit from any increased level of androgens. By focussing on testosterone levels rather than gender they are also undoubtably a step away from the crude gender verification regimes of the past, although it must be noted that legal definitions of gender still play a part in that for an athlete to be able to fulfil the criteria for participation she must be legally recognised as female or intersex.

Second, the Regulations do not impose a blanket and absolute exclusion any athletes that are androgen sensitive and have testosterone levels above the permitted level, there is a mechanism for such individuals to take steps to be allowed to compete.

Third, those who support the new Regulations would argue that they are backed by scientific evidence in a way that the earlier regulations were found not to have been in the Chand case.

Fourth, the Regulations are limited in scope to disciplines where it is said increased levels of testosterone produce the greatest competitive advantage and to international competitions`.

Nevertheless, the introduction of Regulations have been met with considerable dismay and hostility by various commentators.[[4]](#endnote-4) One concern is the limited number of disciplines to which they apply. The IAAF based this selection upon a 2017 study, which it commissioned and was published in the British Journal of Sports Medicine[[5]](#endnote-5). This showed a varying competitive advantage of up to 4.53% in various disciplines. Whilst it is correct that the disciplines covered by the Regulations represent those track disciplines where the greatest competitive advantage existed they do no cover the hammer throw or pole vault, disciplines which showed the greatest competitive advantage overall. This has led to accusations that the Regulations are arbitrary and unfair and that they seem to be aimed at specific individuals such as Caster Semenya.

Further, although the Regulations at first sight provide a number of choices for affected athletes, undergoing treatment to lower testosterone level or competing in men’s events, other disciplines or avoiding international events, the reality is that the choices other than undergoing treatment could be argued to represent no real choice at all. They would either force an athlete to compete in events that they were less talented in, to forgo competing in the most prestigious athletics meetings or to compete against male athletes who they have no realistic chance of beating. A study published in the Journal of Sports Sciences showed that the average speed advantage that Caster Semenya had in the 800m of 1.49 percent fell well short of the 10 percent performance advantage that male athletes have over female athletes.[[6]](#endnote-6)

Absent any other realistic choice, the Regulations require those who are affected and wish to compete to undergo therapy to become eligible. Whilst arguments that athletes will be forced to undergo surgical procedures might be overblown there is unease that in many observers, shared by the author, about the prospect of forcing individuals to take drugs to counter a natural biological phenomenon. Testosterone is a naturally occurring hormone in both men and women. Men with naturally elevated testosterone, far in excess of the normal range, are allowed to compete without penalty or having to undergo treatment to lower levels. Faced with a choice between accepting that some athletes are dealt a stronger hand by nature, and including those with hyperandrogenism in that category, and introducing rules that whilst not compelling some athletes to undergo medical treatment at the very least create pressure on them to do so can is it morally or ethically justified choose the latter course? The desire to create a level playing field in sport is an admirable one. However, the concept of a level playing field is surely one that eliminates cheating and allows athletes to compete to the best of their innate talents and abilities. Steps beyond that that seek to equalise the differences in those innate abilities and talents are surely a step to far and one that undermines the fundamental fact that some athletes will simply be better than others at their chosen events and it is they who, with dedication, hard work and a degree of luck, will achieve greater success.

It seems inevitable that at some stage the new Regulations will be subject to legal challenge, just as the previous ones were. The scientific evidence gathered by the IAAF will undoubtably be attacked as insufficient. Presently it is difficult to predict whether it will stand up to scrutiny in a way that it did not in the Chand case, although greater attempts have been made to pin down the advantage that testosterone gives this time round. Any legal challenge in likely, in the author’s view, to be based upon fairness and human rights arguments founded on, what will be said, is a virtual imposition of medical treatment on individuals and the arbitrary application of the Regulations to a limited number of disciplines. It remains to be seen whether the new Regulations will fair any better than the previous iteration in standing up to such challenges.

The issues created by hyperandrogenism in sport are intractable ones. There is no apparent solution that is fair to everyone that wishes to compete. The IAAF’s stated desire to create a level playing field is an admirable one, equally its clear statement that no one with a DSD is a cheat or should be considered such. It is also welcome that individual’s privacy is recognised as important, more so than for much of the history of gender issues in sport. It is debatable whether the IAAF’s concept of a level playing field is the correct one or whether the new Regulations are the best and fairest solution. Time will tell.

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1. “IAAF Introduces New Eligibility Regulations For Female Classification” IAAF Press Release, 26 April 2018 [↑](#endnote-ref-1)
2. ibid [↑](#endnote-ref-2)
3. See for example “Sex, Sport, and Why Track and Field’s New Rules on Intersex Athletes Are Essential” D. L. Coleman, The New York Times, 11 June 2018. [↑](#endnote-ref-3)
4. See for example “Track’s Absurd New Rules for Women” A. Dreger, The New York Times, 27 April 2018; “Growing voices against hyperandrogenism rule” The Straits Times, 3 May 2018; “IAAF testosterone ruling ‘a painful reminder’ of apartheid era South Africa” BBC, 26 April 2018. [↑](#endnote-ref-4)
5. “Serum androgen levels and their relation to performance in track and field: mass spectrometry results from 2127 observations in male and female elite athletes” S Bermon & P-Y. Garnier, British Journal of Sports Medicine, 15 May 2017 doi.10.1136/bjsports-2017-097792 [↑](#endnote-ref-5)
6. “Hyperandrogenic athletes: performance differences in elite-standard 200m and 800m finals”, M.S. Zakynthinaki, M.J. Martinez-Patino & C. Martinez, Journal of Sports Sciences, 10 April 2018 [↑](#endnote-ref-6)