Transgender Athletes: How Can They Be Accommodated?

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From ancient times, competitive sport has been divided primarily by the traditional concepts of male/female identity, and in some sports subdivided by weight or other factors, such as age, affiliation, amateur or professional status, or level of competition. The overall goal is to promote perceived equitable competition. Furthermore, as societal values have changed, increasing numbers of women of all ages have been competing in virtually all events (8). For example, women’s participation in the summer Olympic Games has increased substantially from 277 athletes (9.6%) in 1928 when track and field events for women were included, to 4,676 athletes (44.2%) in 2012 in London. One recent illustration: the 2016 US Olympic Team had more women (294) than men (264). In part as a result of Title IX, which requires equal opportunity for participation in sport, women’s participation in US collegiate sports has increased considerably in the past few decades (3).

In much the same way as clinicians and politicians have struggled with how to integrate transgender individuals, so has competitive sport, especially transwomen athletes. In this respect, the International Olympic Committee (IOC) was a groundbreaker when it convened an expert panel in which I participated. The panel met in Stockholm in October 2003 and developed recommendations — “The Stockholm Consensus” — that were adopted by the IOC’s Executive Board in May 2004 (9,13). These recommendations called for inclusion of male-female (M-F) and female-male athletes so long as they met explicit criteria, including gynadectomy and completion of anatomic changes consistent with their professed gender followed by a 2-yr period during which they received hormonal therapy “appropriate for assigned sex” and “in a verifiable manner.” In addition, these athletes would have to demonstrate that legal recognition of their reassigned gender/sex identity had been received in the appropriate jurisdiction.

The Stockholm Consensus, or some version of it, was subsequently adopted by a number of the sport-specific international federations, many of which conduct events within the summer and winter Olympics. Importantly, these include the International Amateur Athletics Federation (IAAF) for Track & Field, the International Tennis Federation, and the Association of Boxing Commissions. Some still require participation based on birth certificate, such as the Federation Internationale de Volleyball. In the United States, The Stockholm Consensus has been adopted by USA Boxing, USA Gymnastics, USA Track & Field, and USA Sailing. A few federations, such as USA Triathlon, simply require adherence to the United States Anti-Doping Agency rules, which require a therapeutic use exemption (TUE) for use of exogenous testosterone, while some simply permit transgender athletes to compete in the gender with which they identify — for example, the US Soccer Federation and USA Swimming.

Notwithstanding adoption of the Stockholm Consensus, no transathletes were known to have competed in the Olympic Games through the 2014 Winter Olympics in Sochi, Russia. Acknowledging advances in transgender hormonal therapy and limited access to surgical therapy, or at least provision of insurance coverage in some health care systems, the IOC’s Medical and Scientific Commission convened a follow-up meeting in Lausanne, Switzerland, in November 2015. On this occasion, there was a larger and more diverse group of experts, including a transgender athlete. Again, I was among those who participated.

This meeting resulted in updated guidelines which were in place, at the discretion of the component sports federations, for the 2016 Summer Olympics in Rio de Janeiro (7). The new guidelines eliminated the requirement for legal recognition as well as the requirement for surgical anatomical changes, replacing this with a requirement for male-female athletes that serum testosterone levels be maintained below 10 nmolL \(^{-1}\) (288 ngdL \(^{-1}\)) for at least 12 months before competition and remain below that level throughout the period of eligibility. Female to male transathletes could compete “without restriction.” Nonetheless, no transgender athletes are known to have competed in the 2016 Summer Olympics held in Rio de Janeiro (2).

Depending on the method used — tandem mass spectrometry is regarded as the most sensitive and specific, especially at lower levels seen in women — 10 nmolL \(^{-1}\) is at the lower limit of normal in men and was based on the same threshold set a few years earlier for hyperandrogenism in testosterone-sensitive women with various disorders of sex development (1). A few months before the November meeting this so-called hyperandrogenism policy was suspended for 2 yr by
the international Court of Arbitration for Sport (4), pending demonstration that levels exceeding this threshold provided such a significant advantage in performance as to be unfair. The case was brought against the Athletics Federation of India and the International Association of Athletics Federations (IAAF). While not directly applying to the IOC, subsequently the IOC suspended the hyperandrogenism rule for the Rio Olympic games, accompanied by a statement of IOC support for the IAAF appeal (7).

There has not been unanimity on the 10 nmol L\(^{-1}\) threshold, however. So long as gonads in M-F transgender athletes are intact and testosterone levels are suppressed with medication — which is quite common, especially when insurance coverage for surgery is absent or inadequate — some authorities are concerned that M-F athletes can manipulate medication and transiently increase their testosterone levels to enhance training for competition. At an IOC follow-up meeting in May 2016, attended by representatives of the World Anti-Doping Agency (WADA) and several of the sport-specific international federations, some of us felt the threshold should be closer to the upper range in cis females, which is \(\sim 3.1 \text{ nmol L}^{-1} (88 \text{ ng dL}^{-1})\), though there was no closure on what level that should be. At this writing, there is optimism among IOC officials that this can be resolved in the coming months, but in any event, it may need to be refined when the Court rules definitively on the hyperandrogenism rule, because the suspension expires by late July 2017 (4).

There also has been some controversy regarding levels of testosterone permissible in M-F athletes whose gonads have been removed, obviously with testosterone supplementation. Strictly speaking, the 10 nmol L\(^{-1}\) threshold set by the recent IOC guidelines could be applicable to M-F transgender athletes whose testes were removed, though it would require a TUE for exogenous testosterone from the appropriate governing body, which is not permissible under current WADA guidelines. One M-F transathlete, a competitive cyclist, who was unable to obtain a TUE to take exogenous testosterone, has filed suit in a Canadian court (14), arguing that she suffered menopausal symptoms because endogenous androgen levels produced by her body (predominantly of adrenal origin) were insufficient to maintain normal health and well-being and that she should be able to maintain testosterone levels up to 5 nmol L\(^{-1}\) with supplementation. Ultimately, it is incongruent to in effect maintain widely different testosterone thresholds for those M-F athletes who have intact gonads and those who have had them surgically excised.

With respect to intercollegiate sports, in August 2011, the National Collegiate Athletic Association (NCAA) Office of inclusion published an extensive guidance regarding “NCAA Inclusion of Transgender Student-Athletes” (5), which had been adopted over a year earlier by the NCAA Executive Committee. In contrast to the IOC guidelines, the NCAA policy is notable for its less explicit guidelines — that is, no definitive level of testosterone is given for M-F athletes — other than stating that 1 yr of hormonal suppressive therapy is sufficient for M-F transathletes to participate in a women’s team. Should they not be taking hormone therapy in relation to gender transition, transathletes may participate on a team consistent with their assigned birth gender. The policy statement goes into considerable detail, with examples, regarding the rationale for appropriate inclusion and provides an extensive bibliography.

In contrast, policies for interscholastic sports vary appreciably by state and school district (6). As more and more children and adolescents are diagnosed with gender dysphoria and treated with “puberty blockers,” such as Gonadotropin-Releasing Hormone (GnRH) analogues, it is likely that increasing numbers will be recognized and present for inclusion in interscholastic sport, certainly if the recent experience at Yale (10) and reflected by the burgeoning literature (11,12) is emblematic.

I thank Richard Budgett, MD, IOC, medical and scientific director; William Briner, MD, FACSM, chair, US Volleyball Sports and Performance Commission; and Jonathan C. Reeser, MD, FACSM, Marshfield Clinic Research Foundation for helpful comments on earlier drafts. The author is a consultant to the IOC’s Medical and Scientific Commission. The opinions expressed in this article are those of the author and not necessarily those of the IOC or of the Commission.

References