REPORT OF THE BOARD OF TRUSTEES

B of T Report 1-I-22

Subject:	Opposition to Requirements for Gender-Based Treatments for Athletes (Resolution 19-A-19)
Presented by:	Sandra Adamson Fryhofer, MD, Chair
Referred to:	Reference Committee on Amendments to Constitution and Bylaws

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Resolution 19-A-19, "Opposition to Requirements for Gender-Based Treatment for Athletes," sponsored by the Medical Student Section, was referred to the Board of Trustees. Resolution 19-A-19 asked:

1. That our American Medical Association (AMA) oppose any regulations requiring mandatory medical treatment or surgery for athletes with Differences of Sex Development (DSD) to be allowed to compete in alignment with their identity; (New HOD Policy) and

2. That our AMA oppose the creation of distinct hormonal guidelines to determine gender classification for athletic competitions. (New HOD Policy)

BACKGROUND

Resolution 19 reacts to guidelines issued in 2018 by the International Association of Athletics Federations (IAAF)—now World Athletics—updating eligibility criteria for athletes with differences of sex development (DSD) who wish to compete as women in certain international track and field events. Under these guidelines, to be eligible to compete in the 400m, hurdles races, 800m, 1500m, one-mile races and combined events over the same distances, women with DSD who have serum testosterone levels above 5 nmol/L and who are androgen sensitive must:

- be legally recognized as female or intersex
- reduce their circulating serum testosterone levels to below 5 nmol/L for a continuous period of 6 months, and
- maintain their serum testosterone level below 5 nmol/L continuously for as long as they wish to remain eligible to compete (regardless of whether they are in competition) [1].

Female athletes with DSD who choose not to reduce their serum testosterone levels will be eligible to compete in all events that are not international competitions and in events in international competitions other than those specifically prohibited [1].

In a separate report, World Athletics outlines eligibility criteria for transgender athletes competing in international competitions. They specify that

- to be eligible to participate in the female category of competition, a transgender female athlete must provide a written and signed declaration that her gender identity is female;

- she must demonstrate to the satisfaction of an expert panel that the concentration of testosterone in her serum has been less than 5 nmol/L continuously for a period of at least 12 months; and
- she must keep her serum testosterone concentration below 5 nmol/L for so long as she wishes to maintain her eligibility to compete in the female category [2].

They further specify that "no athlete will be forced to undergo any medical assessment and/or treatment" and that neither "legal recognition of the athlete's gender identity" nor "surgical anatomical changes" are required to compete [2].

These guidelines represent the most recent in a series of efforts by the international athletic community to ensure fairness in women's competitions that began with "gender verification" policies in the 1960s. In 1968, following the extraordinary successes of Tamara and Irina Press in the 1960 and 1964 Olympics, who were suspected of being male, female athletes were required to prove their sex to be eligible to compete as women in international events [3]. Over time, procedures to determine sex evolved from having female athletes parade naked before a panel of judges, through gynecological examination of external genitalia, to the use of sex chromatin tests, and ultimately DNA-based testing [3]. In 2000, the International Olympic Committee (IOC) and IAAF discontinued routine gender verification in favor of "suspicion-based testing," reserving the right to test if officials or competitors raised questions about a female athlete's sex.

In 2011, in the wake of controversy over South African runner Caster Semenya, the IOC's Medical Commission recommended hormone-based testing, that is, that individuals recognized in law as female be eligible to compete in women's competitions so long as their serum testosterone levels were "below the male range" or if they had an androgen resistance and derived no competitive advantage from testosterone levels in the male range [3]. The IAAF adopted hormonal testing and implemented new policy that routinely tested all female athletes and required those who tested outside the normal range to undergo treatment to normalize their androgen levels to be eligible to compete.

In March 2019 the United Nations Human Rights Council adopted Resolution 40/5, "Elimination of discrimination against women and girls in sport," noting concern that the IAAF/World Athletics eligibility criteria

> are not compatible with international human rights norms and standards, including the rights of women with differences of sex development, and concerned at the absence of legitimate and justifiable evidence for the regulations to the extent that they may not be reasonable and objective, and that there is no clear relationship of proportionality between the aim of the regulations and the proposed measures and their impact [4].

The resolution further expressed concern that

> discriminatory regulations, rules and practices that may require women and girl athletes with differences of sex development, androgen sensitivity and levels of testosterone to medically reduce their blood testosterone levels contravene international human rights norms and standards … [4]

In 2021 the IOC amended its stance and issued a new "Framework on Fairness, Inclusion and Non-Discrimination on the Basis of Gender Identity and Sex Variations" that eliminated specific instructions on eligibility to compete [5]. Rather, the framework sought to offer general guidance to sports governing bodies:

to promote a safe and welcoming environment for everyone, consistent with the principles enshrined in the Olympic Charter; it "acknowledges the central role that eligibility criteria play in ensuring fairness, particularly in high-level organized sport in the women's category" [5].

With the framework, the IOC recognized "that it is not in a position to issue regulations that define eligibility for every sport" and explicitly left it "to each sport and its governing body to determine how an athlete may be at disproportionate advantage to their peers" [5].

Also in 2021, the authors of a 2017 study on which World Athletics relied heavily in developing its eligibility criteria published a correction in response to ongoing critique from independent statisticians. The correction acknowledged that "there is no confirmatory evidence for causality in the observed relationships reported" [6]. The authors further noted that the initial research was "exploratory and not intend[ed] to prove a causal influence and that some statements in the original publication could have been misleading" [6].

World Athletics has not modified its criteria [6], however, and controversy regarding participation by female athletes with DSD continues.

The related controversy concerning participation of transgender athletes in all types of sports has escalated in recent years. Since 2020, a number of state legislatures have introduced proposals to prohibit transgender girls from competing in girls' high school (and in some cases college) sports. In March 2020, Idaho was the first state to impose a ban on transgender women and girls' participation in school sports. In 2021, Alabama, Arkansas, Florida, Mississippi, Montana, Tennessee, and West Virginia passed similar bans, and South Dakota's governor issued two Executive Orders which implemented a similar prohibition. At the same time the Connecticut court case *Soule et al v. CT Association of Schools et al* was in process. In this case the Alliance Defending Freedom sought to ban two Black, transgender girls from competing in high school track and field [7].

The Idaho ban was blocked by a federal court in August 2020. The AMA, along with the American Academy of Pediatrics and other health care organizations, submitted an amicus brief with the Ninth Circuit Court of Appeals noting that the law undermines the accepted approach for treating gender dysphoria. The brief stated that prohibiting transgender females from participating in school-sponsored sports in keeping with their gender identity interferes with the treatment of gender dysphoria by preventing transgender females from living openly in accordance with their true gender [8].

The AMA, together with five other healthcare organizations, also submitted an amicus brief in *Soule et al v. CT Association of Schools et al.* In it, they emphasize that untreated gender dysphoria can cause debilitating distress, depression, impairment of function, self-mutilation, other self-injurious behaviors, and suicide. They also note that transgender individuals are subject to discrimination in multiple areas of their lives, and this both exacerbates negative health outcomes and reinforces the stigma associated with being transgender. Being subject to stigmatization is psychologically harmful and so creates additional negative mental health consequences [9].

Soule et al was dismissed at the state level and (as of August 2022) an appeal in the 2nd Circuit Court remains undecided. As of May 2022, eighteen states have enacted laws or issued rules that either ban or limit the participation of transgender athletes in public school sports [10]. As a result, in some states regulations are more restrictive at lower levels of competition and in recreational programs than they are at higher levels.

For instance, the IOC guidelines amended in 2021 reflect an inclusive and non-discriminatory position with respect to transgender athletes, consistent with their guidelines for athletes with DSDs. They state that

- eligibility criteria should be established and implemented fairly and in a manner that does not systematically exclude athletes from competition based upon their gender identity, physical appearance and/or sex variations;
- no athlete should be subject to targeted testing because of, or aimed at determining, their sex, gender identity and/or sex variations;
- athletes should not be pressured to undergo medically unnecessary procedures or treatment to meet eligibility criteria; and
- criteria to determine eligibility should not include gynecological examinations or other invasive physical examinations aimed at determining an athlete's gender or sex [5].

FAIRNESS IN SPORT

Regulations intended to promote fairness in sport by restricting the participation of individuals whose genetic characteristics are deemed to give them unfair advantage over competitors raise a series of questions about what the goals of sport are, what counts as an "unfair" advantage, and what should be done to "level the playing field."

Biological Advantage

Policy restricting competition by female athletes who have serum testosterone levels above a designated "normal" range rests on (at least) two problematic assumptions. The first of those assumptions is that there is a straightforward relationship between testosterone and athletic performance that unequivocally gives these athletes significant advantage over female competitors whose bodies do not produce "excess" endogenous testosterone. The second is that serum testosterone levels can meaningfully be measured, and that prescribed levels can be safely and effectively maintained. The specific contribution of testosterone to overall athletic performance continues to be a subject of debate. Critics of the research on which the IAAF based its regulations on endogenous testosterone have argued that a key study concluding that women with the highest testosterone levels significantly and consistently outperformed other female competitors rests on flawed data [11]. Concerns have also been raised about the rigor of its statistical analysis [12]. The main author, moreover, was the director for the IAAF Science and Health Department, raising questions about possible conflict of interest [13]. More importantly, demonstrating a correlation between testosterone and athletic performance in female athletes falls short of establishing the unfairness of such advantage [13].

However, even if the effect of testosterone on athletic performance was conclusively established, single point-in-time tests for overall level of serum testosterone cannot provide conclusive evidence that the individual has or will benefit. It is known that women with androgen insensitivity disorder physiologically cannot gain benefit from excess endogenous testosterone. Multiple factors affect serum concentrations of testosterone, including time of day; age- and gender-corrected normal ranges using a standard assay have not been established; and there is no universally recognized standard for calibrating testosterone [14].

Further, "the relevance of free testosterone vs [sic] the fraction actually available to tissues (the "bio-testosterone") is not well understood" [15]. Nor do the IAAF regulations take into account the existing lack of consensus about "how to use medications safely to lower testosterone levels when

used off-label, the side effects of the medications, [or] the difficulties of maintaining the testosterone levels below the levels requested by IAAF owing to natural fluctuations" [13].

Leveling the Playing Field

Assuming, for purposes of analysis, that testosterone does confer a significant competitive advantage in sport, knowing that does not in itself determine what steps should be taken to "level the playing field." The latter decision is a normative matter, not an empirical one.

To be defensible, rules and practices intended to ensure that no individual athlete enjoys an unfair advantage over competitors requires that rules treat all relevantly similar advantage-conferring attributes in a like manner. Testosterone testing for female athletes who have been singled out on the basis of their appearance or performance for all practical purposes subjects these individuals to genetic testing not imposed on their competitors.

Fairness would require that sports organizations test for *any* ''performance enhancing genes that predispose [individual athletes] to be athletically superior" [16]. In the present state of knowledge, this is no more realistic an approach than are current testosterone assays. The influence of genetic factors on athletic performance is multifactorial and sport specific [17]. Organizations would further have to regulate all such advantage-conferring attributes consistently.

One way to categorize fair versus unfair advantages is by conceptualizing advantages as stable (fair) or dynamic (unfair) [18]. Fair advantages are those the athlete largely cannot affect, (such as chronological age, height, genetics, etc.). Unfair advantages are those the athlete can affect (such as speed, strength, endurance, etc.). On this account, genetic differences in testosterone would be stable advantages that could be subject to leveling or more fine-grained classification.

Thinking specifically about leveling the playing field with respect to inequalities in testosterone levels, three approaches present themselves [13]. First, sports organizations could require athletes to lower testosterone levels that exceed a defined threshold to below a predetermined level. Second, organizations could create separate categories for competition based on the level of biological variations, allowing all athletes with serum testosterone within a certain range to compete against one another, regardless of sex or gender identification [13]. Or, third, they could create categories based on modifying the external conditions of competition instead of intervening in athletes' bodies. Handicapped horse racing offers a model [13].

THE ROLE OF PHYSICIANS

World Athletics eligibility criteria take the first of these approaches: intervening in the bodies of transgender athletes and athletes with DSDs. In doing so, they virtually require the participation of physicians helping athletes achieve and maintain the stipulated levels of serum testosterone. To the extent that medical interventions to lower testosterone may not be *clinically* indicated, is physician participation appropriate? Overall, existing policies of the American Medical Association and the World Medical Association (WMA) argue against physicians cooperating in the implementation of these regulations.

Existing AMA policy in H-470.978, "Blood Doping," and H-470.976, "Abuse of Anabolic Steroids," prohibit physician participation in blood doping or prescribing anabolic steroids. H-470.994, "Non-Therapeutic Use of Pharmacological Agents by Athletes," opposes the use of interventions to enhance athletic performance but is silent with respect to physicians' specific responsibilities.

Principle VIII of the AMA *Principles of Medical Ethics* states that "A physician shall, while caring for a patient, regard responsibility to the patient as paramount." Opinion 1.2.5, "Sports Medicine," in the AMA *Code of Medical Ethics* limits its focus to physicians present during athletic events. It directs those who "serve in a medical capacity at athletic, sporting, or other physically demanding events should protect the health and safety of participants." This is particularly relevant to minors who wish to participate in sports in line with their gender identity, since CEJA Report 3-I-18 "Pediatric Decision-making" specifies that the best interests of a minor should be "understood broadly" and treatment decisions should be made in light of "likely impact on the child's psychosocial wellbeing"[19]. Opinion 5.5, "Medically Ineffective Interventions," which specifically addresses the use of life-sustaining interventions in contexts of terminal illness, provides that physicians "should only recommend and provide interventions that are medically appropriate." It also notes that patients should not receive specific interventions simply because they request them.

Further, Opinion 8.5, "Disparities in Health Care," states that "differences in treatment that are not directly related to individual patients' clinical needs or preferences constitute inappropriate variations in health care." This can be construed as ruling out unnecessary testing or alteration of treatment related to gender identity when these are required by third parties for participation in sports. In Opinion 1.1.2, "Prospective Patients," physicians are required to refrain from discrimination on the basis of gender and gender identity, which in accordance with principles of justice, should extend to declining to participate in (and so refusing to legitimize) discriminatory practices that violate patients' human rights.

In a press release in April 2019, the World Medical Association demanded that the IAAF "immediately withdraw" its new eligibility regulations for classifying female athletes and urged physicians to "take no part" in implementing them. In October 2021 WMA updated "Declaration on Principles of Health Care in Sports Medicine" to oppose World Athletics eligibility regulations and condemn "medical treatment solely to alter athletic performance," as "unethical."

These provide strong arguments that, as professionals committed to promoting first and foremost the well-being of their patients, it is not appropriate for physicians to provide medical interventions required to fulfill the World Athletics regulations mandating specific testosterone levels for either athletes with DSDs or transgender athletes. These arguments also suggest it is inappropriate for a physician to cooperate with any public school or recreational team that requires medical testing and/or physician confirmation that an athlete is a particular gender in order for them to participate.

RECOMMENDATION

In view of these considerations, your AMA recommends that the following recommendations be adopted in lieu of Resolution 19-A-19 and the remainder of this report be filed:

1. That our American Medical Association (AMA) oppose mandatory testing, medical treatment or surgery for transgender athletes and athletes with Differences of Sex Development (DSD), and affirm that these athletes be permitted to compete in alignment with their identity; (New HOD Policy)

2. That our AMA oppose the use of specific hormonal guidelines to determine gender classification for athletic competitions. (New HOD Policy)

3. That our AMA oppose physician participation in any practices intended to officially certify or confirm an athlete's gender for the purposes of satisfying third party requirements. (New HOD Policy)

Fiscal note: Less than $500.

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