## **Anti-Doping Awareness in Sports**

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Lecture -11

ADRV as per WADA Code

Good morning friends, and welcome to this edition of the Anti-Doping Course brought to you by NPTEL and IIT Madras. This is Week 3, Lecture 1. I'm Professor Dobson Dominic, and I'm a Sports Medicine physician. Today, we are going to look into anti-doping rule violations as per the World Anti-Doping Agency (WADA) Code. During this third week, we will explore the different types of anti-doping rule violations, not only by athletes but also by athlete support staff. That will be our focus in today's lecture.

The other lectures scheduled for this week will cover athlete doping rule violations in more detail, the 11 articles in the WADA Code, the rights and responsibilities of athletes, common anti-doping rule violation scenarios, and in the final lecture, we will look into the prevention strategies followed by the World Anti-Doping Agency and the National Anti-Doping Organizations. In this lecture today, we are going to introduce anti-doping rule violations, explain the 11 types of violations, cover violations specific to athlete support personnel, and conclude with some take-home messages.

Now, what is an ADRV or Anti-Doping Rule Violation? It refers to the presence of a prohibited substance or its metabolites in an athlete's sample, or the detection of a prohibited substance or its markers or metabolites in a sample provided by the athlete. It also includes the use or attempted use of a prohibited substance or method. Importantly, an athlete need not test positive to be charged; even attempting to use a banned substance or method constitutes a violation. In short, the use of any banned substance or method, or an attempt to use one, even without a positive test, can result in an ADRV.

According to the WADA Code, an anti-doping rule violation occurs when an athlete or an associated support staff member breaches one or more of the WADA Code articles. These articles cover a wide range of violations, including the presence of prohibited substances, tampering with doping controls, and more. Broadly, ADRVs are grouped into two

categories: analytical violations, where a positive drug test is detected, and non-analytical violations, where, for example, the athlete refuses to submit a sample.

What explanations or defenses can an athlete offer if charged with an ADRV? One possibility is a genuine medical reason for the presence of the substance, supported by a valid Therapeutic Use Exemption (TUE). In such cases, there may be no case to answer, and the case can be closed at the result management level. If an athlete is exonerated following a disciplinary proceeding, no sanction is applied. Cases may also remain pending—meaning they have not been finalized, either because disciplinary proceedings are ongoing or the result management process is still underway. Finally, if found guilty, the athlete is sanctioned. This includes cases where a final decision has been made, and a penalty such as a reprimand or a period of ineligibility has been imposed following the conclusion of disciplinary proceedings.

According to the 2021 WADA Code, there are 11 anti-doping rule violations. All 11 apply to athletes, while 7 also apply to athlete support personnel such as physiotherapists, doctors, coaches, or trainers. Let's broadly review the 11 ADRVs. The first is the presence of a banned substance in the athlete's sample, which can lead to a ban of up to four years and applies only to athletes. The second is the use of a banned substance, which also carries a ban of up to four years and applies only to athletes. The third is evading, refusing, or failing to submit a sample; again, the ban can be up to four years and applies only to athletes.

The fourth violation is whereabouts failures, where athletes fail to accurately report their location and activities for testing purposes. This can result in a ban of up to two years and applies only to athletes. The fifth is tampering or attempted tampering with doping control procedures, which carries a ban of up to four years and applies to athletes, athlete support personnel, and others. The sixth violation is possession of a prohibited substance or method, with a ban of up to four years; this applies to both athletes and support staff. The seventh is trafficking of prohibited substances, which carries a ban ranging from four years to a lifetime and applies to athletes, support personnel, and others. The eighth is administration or attempted administration of prohibited substances or methods, again with a ban ranging from four years to a lifetime, and it applies to both athletes and support personnel. The ninth is complicity or attempted complicity, which carries a ban of up to two years and applies to athletes and support staff. The tenth is prohibited association, where an athlete maintains contact with banned personnel. This can lead to a ban of up to two years and applies to both athletes and support staff. The newly introduced eleventh ADRV involves acts that discourage or retaliate against individuals who report doping violations. This violation carries a ban ranging from two years to a lifetime and applies to both athletes and their support personnel.

We will explore each of the 11 anti-doping rule violations in detail in the coming lectures. The newest addition to the 2021 WADA Code includes the eleventh ADRV as well as provisions for aggravated circumstances, where the ban may be increased by an additional two years, for example, in cases involving multiple prohibited substances. The updated Code also allows more flexibility in cases involving recreational athletes or protected persons, enabling shorter bans. Substances of abuse: those banned only during competition, may also lead to shorter bans if the athlete is caught using them out of competition. Some sports with the highest incidence of ADRVs include weightlifting, with more than 89 violations, athletics with over 132, and cycling with more than 88, according to 2020 data. These trends have remained consistent in subsequent years. Violations are also seen across other sports such as aquatics, football, mixed martial arts, bodybuilding, boxing, and powerlifting.

Looking at ADRVs by gender, data from 2021 show that violations are significantly more common among male athletes (about 76%) compared to female athletes (24%). This gender disparity reflects the higher male participation in certain doping-prone sports. For example, anabolic androgenic steroids are more commonly misused by male athletes for performance enhancement, leading to a higher incidence of ADRVs among them.

Now let's consider violations by athlete support personnel. These include coaches, trainers, medical staff such as sports physicians and physiotherapists, as well as massage therapists, nutritionists, dietitians, and psychologists. Any of these individuals may be held responsible if they provide a banned substance or assist in the use of a prohibited method. Reports from 2020 suggest that more than 25 athlete support personnel were involved in doping violations. WADA recognizes that support staff play a critical role in ensuring anti-doping compliance and holds them to the same standards as athletes. Out of the 11 ADRVs, 7 are applicable to support staff.

Multiple steps are taken to reduce or prevent anti-doping rule violations. WADA has implemented several strategies, including increased testing, the introduction of the Athlete Biological Passport, and testing both during and outside of competition. Continuous education programs for athletes and support personnel are essential. Both WADA and national anti-doping agencies work to inform athletes and staff about the current list of prohibited substances and the procedures for testing. Prevention and education are essential for reducing anti-doping rule violations.

To conclude, the take-home message is that anti-doping rule violations undermine fair competition in sports. Most violations involve the use of prohibited substances, but non-analytical violations such as tampering are also significant. Sports such as weightlifting, athletics, and cycling are most affected by ADRVs. Enhanced testing and education are key to prevention. Collective action is crucial for promoting clean sport.

Support personnel like coaches, athletic trainers, physiotherapists, and sports medicine doctors play an important role in either supporting or undermining anti-doping efforts, and they must be held accountable. Emerging threats like gene doping require constant vigilance from both national anti-doping organizations and WADA. Finally, it's important to remember that all banned substances and methods are harmful to an athlete's health. Regulation and testing by WADA and the IOC aim to reduce doping and eliminate its use in sport.

These are the references for today's lecture. Primarily, you should refer to the World Anti-Doping Code 2021, the current list of prohibited substances for 2024 and 2025, and the National Anti-Doping Rules of 2021 and 2022. Thank you for your patient listening. Jai Hind.