Athletes are often tempted to take prohibited agents with the aim of performance enhancing because of different pressures they face, including self-affirmation, the influence of money- and glory-driven parents, coaches and community members. These agents increase body mass and power, relieve fatigue, mask other prohibited substances during testing, lead to faster recovery and have many other adverse effects on health. The use of prohibited agents, commonly known as doping, is detrimental to the mental and physical health of athletes and violates the rules of ethical conduct. The prohibited agents include prohibited substances and prohibited methods. For a substance or a method to be included on the Prohibited List published by the World Anti-Doping Agency (WADA) it has to meet at least two of the following three criteria: it enhances sport performance, it represents an actual or potential health risk to athlete or it violates the spirit of sport. The fight against doping has, for a long time, been a strategic goal at both national and global level. Countries, the International Olympic Committee, international sport federations, national sport associations and various government and non-governmental organizations have been making considerable efforts in creating policies and strategies for the fight against doping in sport. In 1999 these efforts resulted in the establishment of the World Anti-Doping Agency (WADA). Subsequently, many of the national anti-doping agencies were founded. Croatian Anti-doping Agency (CROADA) was founded in 2007 with the aim of promoting doping-free sport and protecting athletes from adverse health effects.

Key words: doping, sport, ethics, WADA, CROADA.
Introduction

The use of performance-enhancing drugs, commonly known as doping, is one of the greatest problems in sport. Prohibited agents include prohibited substances and prohibited methods. There are two types of prohibited substances: a) substances prohibited in-competition (stimulants, narcotics, cannabinoids, corticosteroids), b) substances prohibited both in- and out-of-the competition (anabolic agents, peptide hormones, growth hormones and similar substances, beta-antagonists and modulators, diuretics and other masking agents). Finally, there are prohibited methods (enhancement of oxygen transfer, chemical an physical manipulation, gene doping) (1). For a substance to be included on WADA Prohibited List it has to meet at least two of the following three criteria: a) it enhances sport performance, b) it represents an actual or potential health risk to athlete and c) it violates the spirit of sport. These agents increase body mass and power, relieve fatigue, mask other prohibited substances during testing, lead to faster recovery and have many other adverse effects on health. The current definition of doping, according to the World Anti-Doping Code, is not limited to the presence of prohibited substances or metabolites in the athlete’s sample. It also encompasses use of prohibited substances, attempt to use prohibited substances, possession and selling of prohibited substances, non-acceptance of testing, etc. (2) Doping is harmful to the mental and physical health of athletes and it violates the Olympic principle as well as ethical guidelines. By being susceptible to different pressures, ranging from self-affirmation to the influence of money- and glory-driven parents, coaches and community members, athletes often feel tempted to take prohibited substances in order to enhance their performance.

International anti-doping framework

The fight against doping has, for a long time, been a strategic goal at both national and global level. Countries, the International Olympic Committee, international sport federations, national sport associations and various government and non-governmental organizations have been involved in creating policies and strategies for the fight against doping in sport.

All the efforts made in this field resulted in the establishment of the World Anti-Doping Agency (WADA) in 1999 and the development of World Anti-Doping Code (the Code) in 2003.

At the the World Conference on Doping in Sport held in Copenhagen from 3–5 March 2003, with the participation of athletes, ministers and other government of-
ficials, members of intergovernmental and non-governmental organizations, numerous representatives from International Olympic Committee, international sport associations, national Olympic committees, International Paralympic Committee, national anti-doping organizations and WADA, the Republic of Croatia has accepted and signed the Declaration on Anti-Doping in Sport (3). Furthermore, the Code was accepted as a basis for fighting against doping in sport worldwide. Ana Marija Bešker, the Croatian ambassador to Denmark, signed both documents on behalf of the Croatian government. The governments that have accepted and signed the Copenhagen Declaration acknowledge and support the role of WADA and its Code. Moreover, they commit themselves to international and intergovernmental co-operation in standardizing anti-doping policies and practices in sport.

As a member of the Council of Europe (CoE), Croatia has, over the last fifteen years, actively participated in creating anti-doping policies within CoE’s bodies CAHAMA (Ad hoc Committee European Coordination Forum for the World Anti-Doping Agency), Monitoring Group and the Expert Committee for the Development of Sport. During all this time Croatia was represented by Ivan Fattorini, a well-known anti-doping expert and the president of the Croatian Anti-Doping Agency’s Executive Committee.

The International Convention against Doping in Sport was adopted at the UNESCO General Conference in Paris on 19 October 2005 and put into force on 1 February 2007, after being ratified by thirty countries, in accordance with Article 37 of the Convention (4). The Croatian Parliament confirmed the ratification of the Convention on 6 July 2007 (5).

**Croatian Anti-Doping Agency (CROADA)**

While the issue of doping was being addressed worldwide, the Croatian government, in accordance with the Law on Sport, (6) founded the Croatian Anti-Doping Agency on 7 February 2007 (7). On 19 April 2007 the Government appointed Damir Erceg as the Agency’s Temporary Director and Ivan Fattorini as the President of the Executive Committee. The committee consisted of renowned medical experts.

In October 2007 the Agency signed a contract stating that it accepts WADA’s Code and ADAMS, a database management system that makes the implementation of the Code easier. CROADA started using ADAMS, which enabled monitoring of the Olympic candidates. In the beginning the Agency was based in Savska Street in Zagreb but in 2008, due to the complexity of its work, it moved to the University
Campus Borongaj. It was comprised of the following departments: department of education, department of doping control, department of research and development, department of information and department of international cooperation. In 2009 it employed six people.

**CROADA’s activities:**

- ensures the implementation of the Declaration, the Code and the rules of international sport associations and the International Olympic Committee
- regulates, organizes and carries out doping control both in-competitions and out-of-competitions, except for those carried out by the international sport associations at the international competitions in Croatia
- monitors the organization and implementation of doping control at international competitions in Croatia
- monitors and gathers information on how government and non-governmental organizations fight against doping in sport
- collaborates with government and non-governmental organizations with the aim of fighting against doping in sport
- recommends and advises government and non-governmental organizations on sport issues with the aim of preventing doping in sport
- monitors and gathers information on legislative measures adopted by other countries and international organizations in their fight against doping in sport
- collaborates with international expert organizations on projects related to doping issues, signs testing contracts
- organizes researches, counseling, seminars, lectures and publishes works related to the issue of doping in sport
- educates and licenses experts to implement doping control
- prepares an annual doping control plan
- organizes educational workshops against doping in sport
- informs the public about the actions being taken in the fight against doping

The Agency has collaborated with the Ministry of the Interior, the Ministry of Foreign Affairs and European Integration, the Ministry of Health and Social Welfare, the Ministry of Culture’s Department for UNESCO and the Office for Combating Narcotic Drug Abuse. Within the NGO sector it has collaborated with the Croatian Olympic Committee’s Health Commission, national sport associations and sport clubs. It was under the jurisdiction of the Ministry of Science, Education and Sport.
Doping control

Doping control or drug testing is the basis of promoting doping-free sport. It is carried out in accordance with the Code and WADA standards, in collaboration with the co-signers of the Code (8). Athletes who compete at the international level can be tested anytime, anywhere. The test can be conducted at a competition or away from a competition situation, such as at an athlete’s home or training venue, with no advance notice. Blood and/or urine samples may be collected. There is a list of substances prohibited both in- and out-of-the competition. Also there is a list of substances prohibited in particular sports (alcohol and beta blockers) (1).

Doping control can have clinical, forensic and legal implications and is very important from an ethical standpoint. Regarding these implications, we have to mention the case of our famous swimmer Marko Strahija. In 2002, in two out of three samples, he tested positive for beta-hCG. Since hCG is a known tumor marker the laboratory pointed out that there is a possibility that Strahija has a medical condition. He underwent medical tests which showed no sign of tumor. As a result he received a two-year suspension. In 2007 Strahija again tested positive for hCG. This time, subsequent medical tests found testicular cancer and he immediately underwent surgery. This illustrates the intertwine ment of different implications of doping, including clinical, forensic, legal and ethical. Strahija’s case has been cited in literature, given that it opens a number of ethical questions such as inconclusive tests causing irreparable harm to athlete’s reputation, inadequate medical care of professional athletes, etc. (9).

In 2008 a total of 437 urine samples were tested in 23 sports, 268 within the national program and 169 within the international program. 387 were carried out by the Agency and 50 by the Croatian Olympic Committee, due to the fact that it was a transitional year.

We were in charge of the doping control at European Short Course Swimming Championship in Rijeka, European Swimming Championships in Dubrovnik, LEN Cup, European Triathlon cup, Olympic Handball Qualification in Zadar, Zagreb Athletics Meeting, European Judo Championship U-23, international swimming meetings, 45th Navy Sports Championship in Split and military wrestling championship.

Out of 268 tests carried out within the national program, 136 were out-of-competition tests and 132 in-competition tests. All out-of-competition test were applied to the registered testing group which was comprised of 189 athletes. 3 samples out of 437 tested positive, 2 international ones and 1 national. The international regula-
tory authorities were notified about positive samples concerning international competitions (naval pentathlon and professional boxing). As for the national sample that tested positive to marijuana, the Croatian Basketball Federation issued a year-long suspension to the athlete in question. The suspension was later reduced to three months by the International Basketball Federation.

In 2009 a total of 930 athletes were tested in 43 sports. 6 blood samples and 930 urine samples were tested, 560 within the national program and 384 within the international one. We were in charge of the doping control at European Shooting Championship, European Shooting Cup, Handball World Championship, Baseball World Cup, World Junior Water Polo Championship, World Synchronized Skating Championship, World Junior Skating Cup, European Rock and Roll Championship, Archery World Cup, European Crossbow Championship, LEN Cup, Zagreb Athletics Meeting, European Karate Championship, international swimming meetings, International Military Shooting Championship, etc.

In equine sports 28 tests were carried out on horses, with help of the Croatian Equestrian Federation.

Out of 546 tests carried out within the national program, 281 were out-of-competition tests and 265 in-competition tests. All out-of-competition test were applied to the registered testing group which was comprised of 310 athletes. 7 samples out of 958 tested positive, 2 international and 5 national ones. The international regulatory authorities were notified about positive samples concerning international competitions (military and field shooting). As for the national samples, three bodybuilders tested positive, a boxer and a basketball player tested positive to various prohibited substances.

In 2010 a total of 699 samples were tested in 38 sports. 472 tests were carried out within the national program (287 in-competition and 185 out-of-competition), while 227 were carried out within the international program (211 in-competition and 16 out-of-competition). Ten violations of anti-doping rules were registered within the national program, including six in body building and one each in thai box, athletics, swimming and equine sport.

The Therapeutic Use Exemptions

Therapeutic Use Exemption is an exemption that allows an athlete to use, for therapeutic purposes only, an otherwise prohibited substance or method. It is implemented in accordance with the Standard for Therapeutic Use Exemption, which ensures equal treatment of all athletes (10). The Therapeutic Use Exemption may be
granted to an athlete if these three criteria are fulfilled: a) the athlete would experience significant health problems without taking the prohibited substance or method, b) the therapeutic use of the substance would not produce significant enhancement of performance, and c) there is no reasonable therapeutic alternative to the use of otherwise prohibited substance of method.

In 2008 CROADA formed a Committee for the Therapeutic Use Exemptions which consisted of six renewed medical experts, specialists from different fields of medicine, including internal medicine, physical and rehabilitation medicine, sports medicine, occupational medicine, pediatrics and orthopedics. The head of the committee was Božidar Ćurković, a physical and rehabilitation medicine specialist. The committee was responsible for granting the therapeutic use exemption to the nation’s leading athletes. In 2008 it considered fourteen applications, two for the Therapeutic Use Exemption (TUE) and twelve for the Abbreviated Therapeutic Use Exemption (ATUE). ATUE applications concerned beta-antagonists and local administration of corticosteroid. Twelve applications were accepted while two were denied, one due to inadequate medical treatment and the other due to insufficient medical documentation.

Furthermore, we have to point out that CROADA and the Committee played an important role in obtaining the Therapeutic Use Exemptions for the members of the 2008 Croatian Olympic team. Due to their efforts four Abbreviated Therapeutic Use Exemptions were granted to the Croatian athletes.

In 2009 the Committee has granted eighteen Therapeutic Use Exemptions. Additionally, CROADA and the Committee obtained five Therapeutic Use Exemptions for the Croatian athletes participating in the Mediterranean Games.

In 2010 the Committee considered twenty-three applications for Therapeutic Use Exemptions. It approved thirteen applications. The rest of the applications were denied due to insufficient medical documentation.

**Educational activities**

Education is the most important aspect of fight against doping because it forms the basis of prevention. Therefore, one of CROADA’s main goals is to educate athletes, coaches, health professionals, and, especially, young athletes. With the aim of offering information about anti-doping issues and educating athletes on their rights and responsibilities CROADA has printed various publications, including the Prohibited List (which is updated annually), the Anti-Doping Code, guidelines for athletes, educational leaflets for young athletes, leaflets on doping control and AD Magazine.
Apart from this, CROADA has launched a web site and organized numerous educational courses nationwide. Here are just some of the cities where courses have been held: Zadar, Šibenik, Kraljevica, Poreč, Rijeka, Osijek. Apart from courses for athletes and coaches, we have also organized courses for the health professionals (Osijek, Rijeka, Vodice, Zagreb).

In May 2009 in Šibenik we participated at the National Championship of School Sports Associations, where more than 2000 primary and secondary school students competed. The event was organized by the Croatian School Sports Federation because it recognized the importance of educating the young athletes. Young athletes had a chance to test their knowledge about harmful effects of doping in sport through a fun educational quiz, and to learn something new. As a result, we managed to pass the knowledge acquired through WADA’s Athlete Outreach Program, which was implemented at the European Short Course Swimming Championship in Rijeka and at the Handball World Championship, to young athletes. We also made sure to include university students in this program, since we were present at the student manifestation organized by the University of Zagreb and some of its constituents (Student Centre, University Centre for Croatian Studies, Faculty of Special Education and Rehabilitation, Faculty of Transport and Traffic Engineering).

In May 2010, due to the positive experiences from Šibenik, CROADA participated at the National Championship of School Sports Associations which was this time held in Rijeka.

At the event CROADA distributed a number of its publications, including the leaflet aimed at young athletes about harmful effects of doping and dangers of using illegal substances. The greatest novelty were the lectures on fight against doping and the harmful effects of doping held by Ivan Fattorini, the head of CROADA’s Executive Committee. Mr Fattorini held two lectures, one for the primary school students and the other for the secondary school students. Since CROADA’s information stands were next to the restaurant where students ate and where lectures were held, students and their teachers would come to the information stand asking for additional information about something they had just heard in the lecture. This indicates that lectures and direct communication, in this case with young people, are very important because they seem to be more efficient than other educational methods (especially if the lectures are held by an experienced expert like Mr Fattorini).

In addition, we participated at the Youth Sport Games held in Split from 26 July - 29 August 2010. The participants competed in ten different sports. Around forty-thousand children from all parts of Croatia passed through Split. We organized edu-
cational meetings in two shifts for young athletes. The goal of this competition was
to give the primary and the secondary school students an opportunity to take part
in organized sport competitions and free activities during the summer. Since 1996
and the first Youth Sport Games, this competition has become one of the biggest
amateur sports events in this part of Europe.

The promotional and educational action "Let’s live our lives without drugs because
drugs take lives" is often associated with the Games. Socializing, sport and recreation
turned out to be the best alternative to all negative things happening nowadays, es-
pecially to substances listed in the Prohibited List. Our intention was to teach
young people about harmful effects of using illegal substances. At our information
stand we displayed brochures and leaflets aimed at younger children about dangers
of doping. In Split young basketball players eagerly participated in the quiz which
allowed them to test their knowledge about doping.

Within the framework of our educational activities, we worked on expanding the
network of doping control officers. In 2008 and 2009 we organized accreditation
and re-accreditation courses for doping control officers. Doping control officers
from all parts of Croatia attended the courses and a base of around fifty doping con-
trol officers was created in four centers: Zagreb, Split, Rijeka i Osijek.

International cooperation

In the field of intentional cooperation on fight against doping, Ivan Fattorini, Gor-
dan Kožulj (a famous swimmer), and Damir Erceg actively participated in the work
of the Monitoring Group of the Anti-Doping Convention and of CAHAMA. Nu-
merous participants were present at the annual meeting of laboratories in Seibers-
dorf and at the meetings of WADA’s European Regional Office, where we worked
with the colleagues from Austria, Hungary, Slovakia, Poland, Slovenia and Romania.
This collaboration was particularly important for us because some of our sport
clubs compete in the regional leagues, especially basketball, water polo and ice
hockey clubs. CROADA established good communication with WADA through
the Athlete Outreach Program, which was successfully implemented at the Europe-
an Short Course Swimming Championship in Rijeka in 2008 and at the Handball
World Championship. Our work within the Athlete Outreach Program was recog-
nized by WADA. As a result our agency was featured in the Play True Magazine
(11). In addition, in recognition of our work, Snježana Karlo, the Deputy Director
and renowned handball player, was invited to participate, as a member of an inter-
national team of experts, in the implementation of the Athlete Outreach Program at
the Winter Olympics in Vancouver. Moreover, CROADA implemented this educa-
tional program at the European Water Polo Championship and the 2010 IAAF
Continental Cup Championship in Split.

In the field of intentional cooperation we are especially proud of our collaboration
with the International Association of Athletics Federations (IAAF) at two major
sport events, the 2010 Zagreb Grand Prix Meeting and the 2010 IAAF Continental
Cup. Having had the chance to evaluate the work of anti-doping officers, IAAF ex-
pressed willingness to sign a contract with CROADA about out-of-competition
testing for the competitions taking place in Croatia.

In 2009 we actively participated at the European Sports Medicine Congress in An-
talya, Turkey and at the World Sports Medicine Congress in San Juan, Puerto Rico.

In addition to all this, we collaborated with the Canadian Centre for Ethics in Sport
due to the fact that one of their athletes was undergoing preparations in Croatia. It
should be noted that we took blood and urine samples, which is a complex proce-
dure since the samples have to be delivered to the laboratory within the time limit.

**Chronology of events leading to the shut down of CROADA in 2010**

After CROADA became one of the leading agencies for fight against doping in the
South East Europe, the Croatian Government, in its 70th session held on 23rd June
2010, disbanded the Agency due to the budget restrictions, attaching it to the Croa-
tian Olympic Committee

- CROADA petitioned the Croatian Government to reconsider its decision (a
  memorandum was sent to the Minister of Science, Education and Sport; Prime
  Minister the Deputy Prime Minister, the Speaker of the Croatian Parlia-
  ment and ministers from various other ministries were notified about the
  memorandum)

- in its 72nd session the Government attached CROADA to the Croatian Insti-
  tute for Toxicology and Anti-doping

- on 22 October 2010 the Croatian Parliament passed an amendment to the
  Law on sport, abolishing the Agency effective from 8 November 2010

- with the abolishment of the Agency, a legal vacuum occurred

- given that there where serious issues concerning the everyday functioning of
  the system due to the passing of some unsustainable bills (inability to proceed
  with anti-doping activities, inability to pay salaries, etc.), the Ministry of Sci-
ence, Education and Sport inquired the Ministry of Public Administration on the issue

- Public Administration minister Mr Mlakar recommended to Science, Education and Sport minister Mr Fuchs to entitle the head of the Agency to lead the Agency until a new body is set up, which minister Fuchs did on 24 December 2010

- the head of the Agency maintains the activities of the Agency (payment of the salaries, preparations for the organization of doping control for the Snow Queen ski tournament), and finally gives notice to the Executive Committee effective 31 December 2010

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