



2021 Code Implementation Support Program

**Guidelines for Sample Collection**

## GUIDELINES FOR SAMPLE COLLECTION

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## Welcome to the Guidelines for Sample Collection

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### Introduction

Welcome to the Guidelines for Sample Collection (Guidelines), a third-level, non-mandatory document that supports the International Standard for Testing and Investigation (ISTI), specifically requirements related to Sample Collection procedures.

Where the ISTI gives a minimum of what to do, the Guidelines aim to help you understand how to do it, giving you examples and suggestions, and showing you how to go above and beyond the requirements where possible.

The processes outlined in this document promote good practice, assisting Testing Authorities (TAs) and Sample Collection Authorities (SCAs) in the development of systems, processes and protocols to support an effective sample collection session of athletes by Sample Collection Personnel (SCP).

### Roles and responsibilities of involved parties

#### Testing Authority (TA) and Sample Collection Authority (SCA):

**TA:** Anti-Doping Organizations (ADOs) that authorize testing on athletes they have authority over are considered TAs. A TA may delegate their responsibilities to other ADOs or third parties (including SCAs) but remain ultimately responsible under the Code.

**SCA:** SCAs are responsible for the overall conduct of the sample collection session. The SCA may or may not be the TA. TAs may delegate their responsibility to a SCA. Some of the SCA's responsibilities can be delegated to the DCO (e.g., training of Chaperones).

#### Sample Collection Personnel (SCP):

To collect samples, it is important to understand the three key roles that exist in sample collection, collectively referred to as SCP: Doping Control Officers (DCOs), Blood Collection Officers (BCOs) and Chaperones.

### 1. DCO

The individual who has been trained and authorized by the SCA to carry out the responsibilities of the sample collection session outlined in the ISTI. The DCO has overall responsibility for the sample collection session and this can include ensuring appropriate number of supplies (equipment and paperwork) for sample collection, setting-up the Doping Control Station (DCS), providing any testing mission-related information to the Chaperones and BCOs, ensuring that each athlete is properly notified and chaperoned to the DCS and each sample is properly collected, identified and sealed, and that all samples have been properly stored and dispatched to a WADA-accredited Laboratory.

### 2. BCO

The individual who is qualified and has been authorized by the SCA to collect a blood sample from an athlete<sup>1</sup>. A BCO must have adequate qualifications and practical skills to perform blood collection from a vein (e.g., qualifications in phlebotomy recognized by the relevant public authority, be licensed to collect human blood, etc.). The BCO will prepare the athlete for the blood collection, answer any relevant questions from the athlete, collect the blood sample(s), and advise the athlete of aftercare procedures. Where blood is collected, the DCO is still responsible for the overall sample collection session with the BCO having specific responsibility for venipuncture and athlete care (i.e., first aid if needed).

### 3. Chaperone

The individual who is suitably trained and authorized by the SCA to carry out specific duties, including one or more of the following:

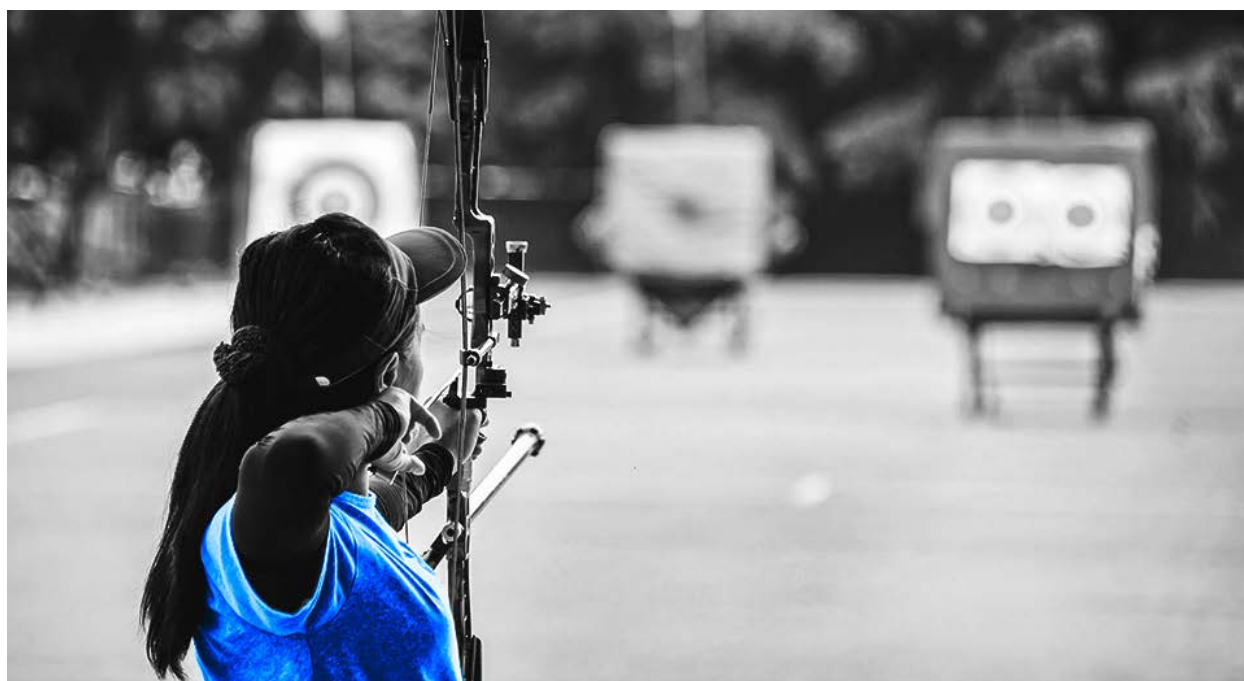
- ❖ notification of the athlete selected for sample collection;
- ❖ accompanying and observing the athlete until arrival at the DCS;
- ❖ accompanying and/or observing athletes who are present in the DCS; and/or
- ❖ witnessing and verifying the provision of a urine sample where the training specifically qualifies them to do so.

For detailed guidance on the role of SCP during the sample collection session, refer to WADA's [Template DCO Manual](#) located on WADA's [Anti-Doping Education and Learning \(ADEL\)](#) website and for more information on the recruitment, training, accreditation and re-accreditation of SCP, refer to the [Guidelines for Sample Collection Personnel](#).

<sup>1</sup> It should be noted that due to the absence of venipuncture during DBS sample collection, in many jurisdictions, DBS samples may be collected by a DCO without the need for a BCO, if standard precautions in healthcare settings are followed and the DCO is suitably trained.

# SECTION 1:

## PREPARING FOR THE SAMPLE COLLECTION SESSION



### ISTI 6.1

To prepare for the Sample Collection Session in a manner that ensures that the session can be conducted efficiently and effectively, including with sufficient resources e.g., personnel and equipment.

Preparing for the sample collection session starts with the establishment of a system for obtaining relevant information for the effective conduct of the session and ends when it is confirmed that the sample collection equipment conforms to the specified criteria.

For detailed guidance for SCP on the preparation for the sample collection process refer to WADA's [Template DCO Manual Section 4.](#)



# Chapter 1

## Administration and ADAMS

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### PREPARING FOR THE SAMPLE COLLECTION SESSION

#### SECTION 1



### ATHLETE NOTIFICATION

#### SECTION 2



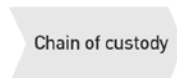
### CONDUCTING THE SAMPLE COLLECTION SESSION

#### SECTION 3



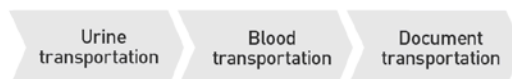
### STORAGE OF SAMPLES AND DOCUMENTATION

#### SECTION 4



### TRANSPORT OF SAMPLES AND DOCUMENTATION

#### SECTION 5



#### SECTION 6 POST-TEST ADMINISTRATION

A TA/SCA should establish a system for collecting details regarding the sample collection session. Such system should include all the necessary information of the session, including:

- ❖ type of test i.e., in-competition or out-of-competition;
- ❖ athlete whereabouts information;
- ❖ athlete selection policy;
- ❖ type of sample i.e., venous blood, urine, venous blood for the hematological module of the Athlete Biological Passport (ABP) program, dried blood spot (DBS); and
- ❖ courier and Laboratory information.



The SCA should also determine which specific responsibilities are delegated to the SCP and how it will use ADAMS in the preparation for a sample collection session.

ADAMS is WADA's "clearing house" IT system and should be used by ADOs to generate a 'Mission Order'<sup>1</sup> (*note: the term 'Mission Order' was replaced by 'Testing Order' in ADAMS Next Gen*) which can be used to centralize, confidentially all the relevant information for the TA/SCA and the SCP regarding a testing mission.

<sup>1</sup> The term 'Mission Order' was replaced by 'Testing Order' in ADAMS Next Gen.

# Chapter 2

## Appointment of SCP

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### PREPARING FOR THE SAMPLE COLLECTION SESSION

#### SECTION 1



### ATHLETE NOTIFICATION

#### SECTION 2



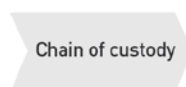
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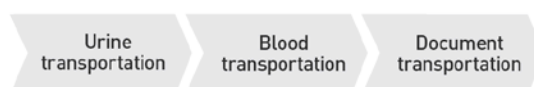
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### TRANSPORT OF SAMPLES AND DOCUMENTATION

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#### SECTION 6 POST-TEST ADMINISTRATION

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The TA/SCA must authorize SCP for each mission. It must also ensure that SCP have been properly trained for their assigned responsibilities, have no conflict of interest in the outcome of the sample collection and are not minors.

The TA/SCA should determine the SCP needed (e.g., DCOs, Chaperones and BCOs) for each sample collection session based on the requirements of each session, for example:

- ❖ the number of samples requested;
- ❖ the type of samples to be collected (i.e., urine, venous blood, venous blood for the hematological module of the ABP, DBS or all);

- ❖ the timing of when athletes will be notified (i.e., all at the same time or staggered across different events);
- ❖ the type of mission (in or out-of-competition);
- ❖ whether any athletes who are minors will be present; and
- ❖ the nature of the venue where testing will take place.

The number of SCP must be sufficient to ensure no advance notice testing, continuous observation and that the requirements related to testing athletes who are minors are met (i.e., always having two SCP). Such number should also be adjusted to the size of the available DCS in the venue where the session will take place. For example, there is no need to appoint a high number of DCOs in a venue when only one room in the DCS is available to process one athlete at a time. A suitable number of chaperones should be appointed to ensure athletes are accompanied at all times. In addition, the TA/SCA may appoint extra DCOs if practical training is taking place at the mission or as part of an audit program where the TA/SCA is monitoring the performance of its sample collection personnel.

## 1. In-Competition missions

In determining the number of SCP needed for an in-competition mission, the TA/SCA should keep in mind that, for in-competition missions, the recommended ratio of DCOs to athletes should be one DCO for four athletes. For example, during an in-competition event where all athletes finish their event at the same time and eight athletes have been selected to provide a sample(s), at least two DCOs should be assigned to this mission. The ratio should be the same for BCOs, if the TA/SCA is also collecting venous blood on all those athletes. Since one Chaperone is required per athlete, the TA/SCA would need to appoint eight Chaperones, at a minimum. However, if testing is spread across a longer period on multiple events, the TA/SCA may appoint fewer Chaperones, but must ensure athletes are chaperoned at all times. If the TA/SCA does not know the outcome of the selection policy until the day of the event (e.g., random selections) then more Chaperones should be allocated.

## 2. Out-of-Competition missions

The same ratio DCO/BCO/Chaperone vs athlete mentioned during in-competition missions should apply to out-of-competitions missions. When a mission is conducted at an athlete's house, it is recommended to appoint two SCP: one DCO responsible for the overall sample collection and a Chaperone (or BCO if blood is collected). Note that if the athlete is a minor, appointing two SCP is mandatory.

## 3. SCP Identification (ID)

In case personalized IDs have been issued by a TA/SCA to its SCP, the TA/SCA should manage the administration of such IDs to ensure they are renewed in advance of the expiry date of the ID. SCP should not conduct sessions with expired IDs.

# Chapter 3

## Equipment and doping control documentation

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### PREPARING FOR THE SAMPLE COLLECTION SESSION

#### SECTION 1



### ATHLETE NOTIFICATION

#### SECTION 2



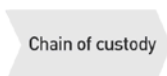
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#### SECTION 3



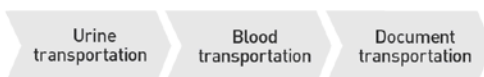
### STORAGE OF SAMPLES AND DOCUMENTATION

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### TRANSPORT OF SAMPLES AND DOCUMENTATION

#### SECTION 5



#### SECTION 6 POST-TEST ADMINISTRATION

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## 1. Equipment

The TA/SCA is responsible for providing enough of the required equipment and supplies to the SCP to cover the needs of a sample collection session. The amount of equipment depends on the number and type of samples requested at each sample collection session. The TA/SCA should develop a policy relative to the amount of equipment and supplies needed per sample collected. For example:

- ❖ **three** A&B sample collection kits per sample requested; and
- ❖ **three** urine collection vessels per sample requested.

It is recommended that additional equipment to the minimum numbers outlined above should also be made available to DCOs in case of unforeseen situations e.g., multiple dilute or partial samples.

The TA/SCA should also develop a system to manage the inventory of equipment so they are aware of the amount, type, and expiry dates of equipment they have in their own storage and those stored with SCP. For example, this information could be tracked in an online database or via a simple excel spreadsheet. In addition, a secure method to ship equipment (and documentation) to the SCP should also be put in place via a reputable courier company and where you can confirm that the equipment and documentation has been delivered to the SCP. It is recommended for SCP to store enough equipment in a secure location so that a short notice testing request can be conducted.

## 2. Doping control documentation

The TA/SCA needs to ensure that the SCP has sufficient doping control documentation to complete a sample collection session. It must also develop a system to ensure that documentation is completed for each sample and is securely handled.

The amount of doping control documentation depends on the number and type of samples requested at each sample collection session. The TA/SCA should develop a policy relative to the amount and type of doping control documentation needed per sample planned to be collected. For example, for each test requested the following doping control documentation should be available to the DCO:

- ❖ **two** Doping Control Forms;
- ❖ **two** Supplementary Report Forms; and
- ❖ **two** ABP Supplementary Report Forms (if ABP sample(s) is requested).

A DCO Report Form for each sample collection session should also be available. Similar to equipment, it is advisable for DCOs to have additional doping control documentation available in case of unforeseen situations e.g., multiple dilute or partial samples.

Doping control documentation used must always be in line with the latest requirements of the International Standards. WADA provides templates for ADOs to use where the most up-to-date versions can always be found on [WADA's website](#).

Electronic ('paperless') doping control documentation may be used by ADOs and given paperless systems can decrease processing time, reduce errors (compared to completing paper copies), etc. using a paperless system such as WADA's DCO Central is recommended. However, it is still good practice for SCP to have paper copies of the doping control documentation in case of unforeseen circumstances, e.g., problems with electronic devices, weak network, etc.

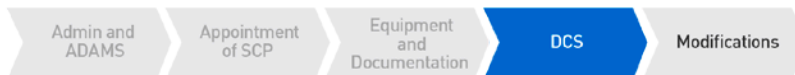
# Chapter 4

## Doping Control Station (DCS)

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### PREPARING FOR THE SAMPLE COLLECTION SESSION

#### SECTION 1



### ATHLETE NOTIFICATION

#### SECTION 2



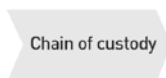
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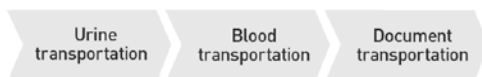
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### TRANSPORT OF SAMPLES AND DOCUMENTATION

#### SECTION 5



#### SECTION 6 POST-TEST ADMINISTRATION

#### ISTI 6.3.2

The DCO shall use a Doping Control Station which, at a minimum, ensures the *Athlete's* privacy and where possible is used solely as a Doping Control Station for the duration of the Sample Collection Session. The DCO shall record any significant deviations from these criteria. Should the DCO determine the Doping Control Station is unsuitable, they shall seek an alternative location which fulfils the minimum criteria.

The TA/SCA should take all the necessary actions in advance of a testing mission to ensure that a suitable DCS is available at the venue should a mission take place. This should include discussions with the relevant national federation/event organizer to identify a room/location where sample collection can take place should the TA/SCA require it with no advance notice. For example, for a team sport, the TA/SCA should have a plan at the start of the season in relation to the identification and availability of a suitable DCS at all competition and training venues used by teams in that sport. Therefore, when a SCP team arrives for testing the room can be accessed and used upon arrival for the purpose of the sample collection session.

At missions where the existence and the size of a DCS is unknown, the TA/SCA should delegate the responsibility to the DCO to locate a suitable DCS on arrival to the venue. A suitable DCS must at a minimum ensure:

- ❖ the athlete's privacy;
- ❖ should be clean;
- ❖ should be accessible for athletes with an impairment (if applicable); and
- ❖ should be used solely as a DCS for the duration of the sample collection session.

If this is not possible, the DCO must record any significant deviations from these criteria. Should the DCO determine the DCS is unsuitable, they must seek an alternative location (either within the existing location or close by) which fulfils the minimum criteria above.

As further guidance, the location of the DCS itself should ensure that the public, members of the media, spectators, etc. cannot hear what is being discussed in the DCS, nor can they see who is in the DCS. As such, any accessible windows should be covered. Furthermore, the use of 'tents' as well as 'light' partition walls should be avoided as much as possible. While avoiding tents is as much to ensure the privacy of the athlete and the confidentiality of the sample collection process, it is also to ensure a comfortable environment for the athletes and SCP during sample collection as they can be warm in the summer and cold in the winter.

The TA/SCA could also create a database with appropriate (or inappropriate) DCSs in all venues of its jurisdiction based on the feedback provided by the SCP. This information can be used for future missions or for discussions with the national federations/event organizers in order to improve the available facilities. In locations where an appropriate DCS is not available, the TA/SCA will need to explore other options and could consider utilizing, for example, a mobile motor home adapted to a DCS, a temporary cabin or a nearby hotel room.

For detailed guidance for SCP on DCSs refer to WADA's [Template DCO Manual Section 4](#).



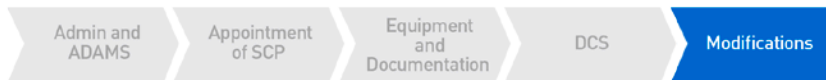
# Chapter 5

## Modifications required

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### PREPARING FOR THE SAMPLE COLLECTION SESSION

#### SECTION 1



### ATHLETE NOTIFICATION

#### SECTION 2



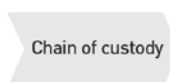
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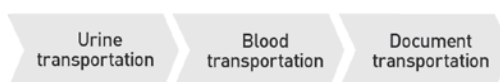
### STORAGE OF SAMPLES AND DOCUMENTATION

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### TRANSPORT OF SAMPLES AND DOCUMENTATION

#### SECTION 5



#### SECTION 6 POST-TEST ADMINISTRATION

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##### ISTI 6.3.1

The Testing Authority, Doping Control Coordinator or Sample Collection Authority shall establish a system for obtaining all the information necessary to ensure that the Sample Collection Session can be conducted effectively, including identifying special requirements to meet the needs of *Athletes* with impairments (as provided in Annex A - Modifications for *Athletes* with Impairments) as well as the needs of *Athletes* who are *Minors* (as provided in Annex B – Modifications for *Athletes* who are *Minors*).

The TA/SCA will need to consider in advance of a sample collection session any modifications to such session that might be necessary because the athlete is a Minor or has an impairment. Such information must be provided to the SCP in advance of a mission.

For detailed guidance for SCP on the modifications to the sample collection process refer to WADA's [Template DCO Manual Section 7](#).

## 1. Testing of minors

In advance of a testing mission the TA/SCA should inform the SCP of the following:

- ❖ the possibility of minors participating at an event where testing will take place;
- ❖ the selection of a minor athlete to be tested;
- ❖ that parental consent is in place for testing a minor; and
- ❖ the importance of encouraging the athletes to have a representative throughout the sample collection session, the importance of assisting the athlete in finding a representative and guidance on what to do in case an athlete representative is not present, found or available.

Parental consent for minors can be obtained in several ways. Some examples include:

- ❖ as part of a minor's condition of membership with their national federation;
- ❖ as a condition of participating in an event; or
- ❖ a dedicated form or process with the TA.

When planning out-of-competition testing, the TA/SCA could consider testing minors only at a location where an athlete representative (of adult age) is present e.g., a training venue. In addition, as noted in Chapter 2 above, for in-competition and out-of-competition sample collection, the SCP team must consist of at least **two** members when testing a minor and both SCP should be present from the point when initial contact is made with the minor until the conclusion of the sample collection session. It is also important to remember that when an athlete who is a minor is providing a urine sample, the second member of the SCP team must observe the DCO/Chaperone who is observing the passing of the sample (i.e., the second member of the SCP team is observing the DCO/Chaperone but not the athlete).

## 2. Testing athletes with an impairment

In advance of the testing mission the TA/SCA should inform the SCP of the following:

- ❖ the possibility of athletes with an impairment participating at an event where testing will take place;

- ❖ the selection of an athlete with an impairment;
- ❖ details of such impairment that may require modifications to the sample collection session;
- ❖ guidance on what modifications to the process are required in case an athlete representative is not present;
- ❖ alternative equipment that might be necessary and how to obtain it;
- ❖ that if an athlete requires additional equipment to be able to provide a sample, it is the athlete's responsibility to have this equipment and to know how to use it<sup>2</sup>; and
- ❖ modified procedures and/or consent required for athletes with an intellectual impairment. The process for obtaining consent for athletes with an intellectual impairment is similar to parental consent for minors (see above).



The TA/SCA could consider creating a database with the above information from ADAMS or previous sample collection sessions on a specific athlete to see if any modifications were needed and provide guidance to the SCP in advance of a mission.

Specific modifications and examples of such modifications with equipment, etc. are included in the [\*Template DCO Manual Section 7\*](#).

<sup>2</sup> While athletes should have this equipment with them, if they do not and it is possible to move to a location where this equipment is available (while keeping the athlete under continuous observation), the DCO may agree to move the sample collection session. If the athlete does not have the additional equipment required to provide a sample, the TA/SCA should document this, and the TA should assess whether this may be deemed a failure to comply.

## SECTION 2:

# ATHLETE NOTIFICATION



### ISTI 5.1

Objective: The objective is to ensure that an *Athlete* who has been selected for *Testing* is properly notified with no advance notice of *Sample* collection as outlined in Articles 5.3.1 and 5.4.1, that the rights of the *Athlete* are maintained, that there are no opportunities to manipulate the *Sample* to be provided, and that the notification is documented.

The TA/SCA must establish a system for locating the selected athlete(s), planning the approach and timing of notification, and recording in detail athlete notification attempt(s) and outcome(s).

The TA/SCA must also provide official documentation to SCP validating their authority to collect a sample from the athlete, e.g., an authorization letter from the TA. This is in addition to any complementary ID the DCO will carry with them e.g., SCA ID card, health card, etc. It is also recommended that BCOs carry (or have access to) their qualifications ID issued by the relevant authorities, e.g., association of phlebotomists, medical card, etc.



TA/SCA should consider issuing an accreditation card to confirm that the SCP have been trained and are accredited to collect samples on behalf of that SCA or TA.

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For detailed guidance for SCP on the notification refer to WADA's [Template DCO Manual Section 5](#).

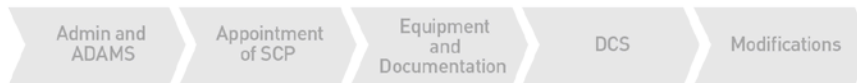
# Chapter 6

## Initial contact with the athlete

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### PREPARING FOR THE SAMPLE COLLECTION SESSION

#### SECTION 1



### ATHLETE NOTIFICATION

#### SECTION 2



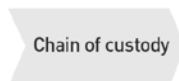
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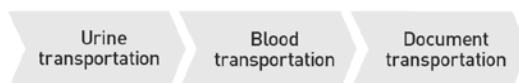
### STORAGE OF SAMPLES AND DOCUMENTATION

#### SECTION 4



### TRANSPORT OF SAMPLES AND DOCUMENTATION

#### SECTION 5



#### SECTION 6 POST-TEST ADMINISTRATION

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### 1. No advance notice testing

No advance notice testing must be the method for sample collection save in exceptional and justifiable circumstances. Such circumstances where the TA/SCA should ensure a solution or process is available, include:

- ❖ where a modification for a minor athlete or athlete with an impairment is required; or

- ❖ testing locations with high security access, e.g., military bases, hotels etc.

To ensure that testing is conducted on a no advance notice testing basis, the TA/SCA must ensure that athlete selection decisions are only disclosed in advance of testing to those who strictly need to know in order for such testing to be conducted.

The TA/SCA must determine if a third party is required for notification prior to notification of the athlete when the athlete is a minor or where required by an athlete's impairment, or in situations where an interpreter is required.

There should be no disclosure of the selection decisions and/or policies to a national federation, team representative or an event organizer.

The TA/SCA has to agree in advance about the role and responsibility of the IF representative at an event, in particular, that the person is there to only assist when needed, and that they are aware of their responsibility to stay with the SCP team until the notification of the athlete(s). The IF representative (or the TA if no IF representative is present) will need to educate the SCP on how the sport operates prior to or on the first day of the event. Areas covered should include as a minimum:

- ❖ the preferred access to the "field of play";
- ❖ where the SCP can observe athletes from during competition;
- ❖ the appropriate location to notify athletes;
- ❖ post-match/event activities and commitments; and
- ❖ athletes who may participate more than once within the day (e.g., multiple events, heats or repechages).

Educating the SCP is important so they understand the sport and are able to notify the athlete without disrupting their performance or post competition commitments.

## 2. Criteria to validate an athlete's identity

The TA or SCA must establish criteria to validate the identity of an athlete selected to provide a sample. This ensures the selected athlete is the athlete who is notified and provides the sample. If the athlete's identity is not able to be validated at notification, a third party may be asked to identify the athlete. However, an athlete's inability to provide photo ID does not invalidate a test.

Formal ID can be established by an official ID document that includes a unique number and photograph of the athlete (e.g., passport, driving licence, accreditation with a photo, etc.). The ID process can be initiated by other means e.g., starting number or finishing position but should be verified with the provision of formal ID by the athlete. The SCP knowing the athlete is not considered a sufficient method of athlete identification and therefore, is not recommended.

It is the responsibility of the athlete to produce ID in accordance with the criteria set by the TA. If the athlete cannot provide such ID, a third party may be asked to identify the athlete and the details of such identification (and the third party details) should be documented on the Doping Control Form or a



Supplementary Report Form. If possible, the third party who will assist with the identification of the athlete should be free of any conflict of interest. If this is not possible, the athlete representative can be used as third party confirming the athlete's identity (although this should be avoided).

If the athlete's identity can't be validated but the SCP through other means (e.g., finishing position) believes it is the correct athlete, the DCO must document this and report it to the TA/SCA. In this scenario, it is recommended to take a photo of the athlete (with the athlete's consent) at the time of the notification and at the end of the sample collection session. If the SCP suspects that the athlete notified has been switched (i.e., an impersonator or doppelganger), the SCP should continue with the sample collection but report the circumstances and obtain any evidence they can retrieve to support their suspicion.



WADA's paperless system (DCO Central) will have the functionality to take and store photographs of the athlete for the purpose of identifying an athlete.

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The TA/SCA can consider a possible Failure to Comply if the athlete refuses to provide formal ID and must investigate if SCP report serious breaches in athlete identity fraud or switching. WADA's Intelligence and Investigation department can offer support in these situations.

# Chapter 7

## Inability to locate the athlete

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### PREPARING FOR THE SAMPLE COLLECTION SESSION

#### SECTION 1



### ATHLETE NOTIFICATION

#### SECTION 2



### CONDUCTING THE SAMPLE COLLECTION SESSION

#### SECTION 3



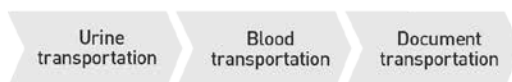
### STORAGE OF SAMPLES AND DOCUMENTATION

#### SECTION 4



### TRANSPORT OF SAMPLES AND DOCUMENTATION

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#### SECTION 6 POST-TEST ADMINISTRATION

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The TA or SCA should provide the SCP with sufficient instructions to locate an athlete. If a selected athlete is not located based on the whereabouts information provided, the SCP should attempt to locate the athlete by any other means, based on the nature of the location and other people in the vicinity, with no advance notice.

If the attempt is made within the athlete's 60-minute time slot, the SCP must make all reasonable attempts to locate the athlete with no advance notice. Examples of reasonable attempts include:

- ❖ If the attempt takes place at the athlete's residence, the SCP should ring the doorbell or knock upon arrival and then at regular intervals during their attempt. While waiting, the SCP should stay

somewhere close-by, where they are able to observe access in and out of the residence and monitor any activity inside the residence e.g., lights switched on or off or people moving around the residence. At the end of the 60-minute time slot one last attempt should be made.

- ❖ If the attempt takes place at a residential address or location with gated or security access, the TA/SCA should ensure that through the whereabouts provided by the athlete that specific information is available on how the SCP will reach the athlete. This might include an access code to a security gate or specific instructions on how to access a building with security personnel in attendance.
- ❖ If the attempt takes place at a sporting venue or other training location and the athletes can't initially be located, the SCP should check other areas to try and locate the athlete. This could include, treatment rooms, meeting rooms, gym, changing rooms etc. The TA/SCA should ensure that the athlete is providing precise location information especially in large venues as part of their whereabouts filings. A failure by an athlete to provide accurate whereabouts information may result in a potential Filing Failure or if relative to testing during the athlete's 60-minute time slot a Missed Test.

For detailed guidance for SCP on making reasonable attempts refer to WADA's [Template DCO Manual Section 4.3](#).

The TA/SCA must also provide instructions on whether a telephone call to the athlete 5-minutes before the end of the 60-minute time slot by the SCP is acceptable. It is recommended that such strategy only be used in exceptional circumstances and only if the athlete cannot be located by exhausting all other means. The TA/SCA should also provide instructions to the SCP on how to proceed when or if the athlete responds to the telephone call. This should include whether to leave a voice message, call again, send a follow up text message, what to do if the athlete is close-by, and how to proceed if a third-party is contacted.

The frequency of these telephone calls by SCP and the apparent reliance on them by athletes to be located for a test should be monitored by the TA/SCA for intelligence purposes and target testing.

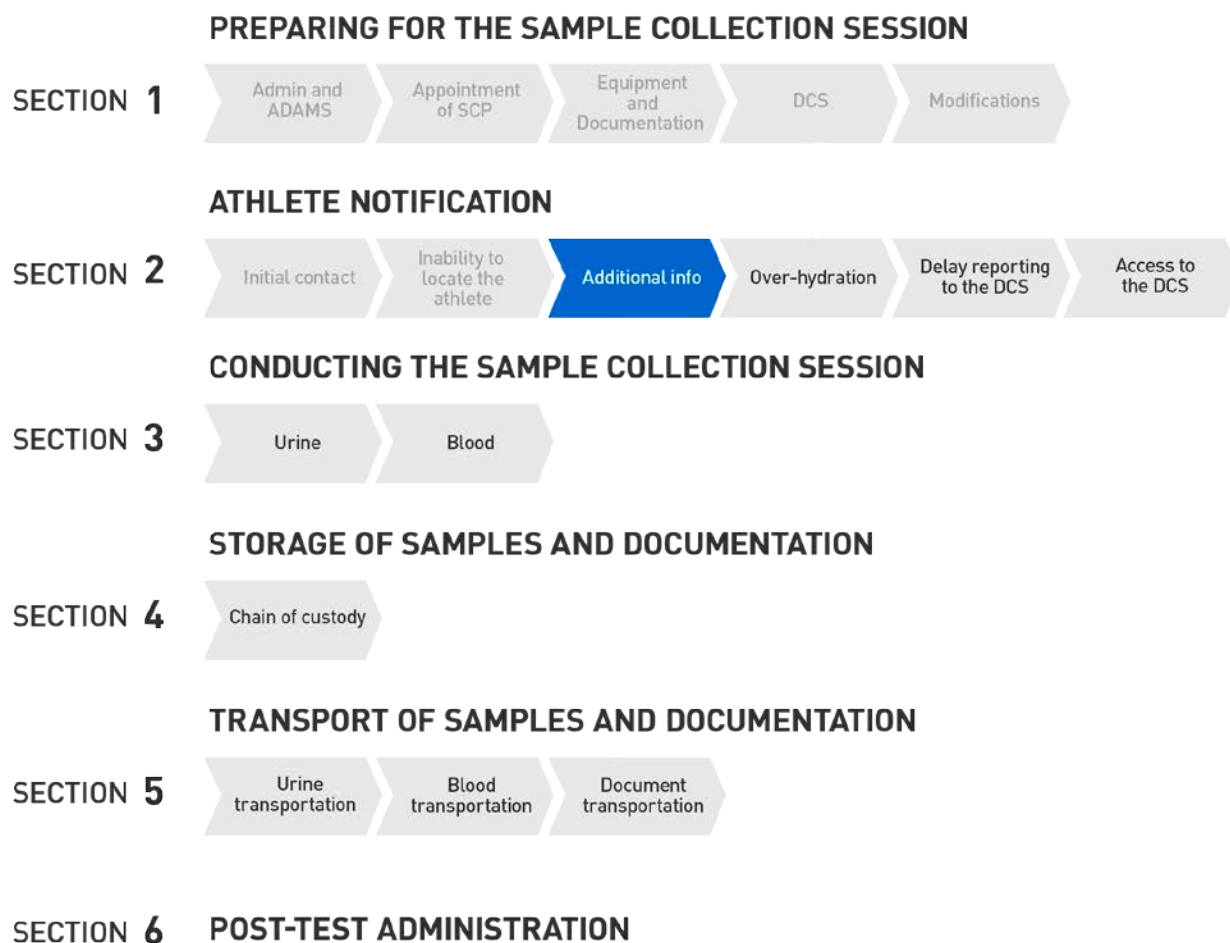
Note: the use of a telephone call in the last 5 minutes of an athlete's 60-minute time slot is not mandatory. TAs should educate athletes on the purpose of the telephone call. For more guidance on the use of the telephone call refer to WADA's [Template DCO Manual section 4.3](#).

If the attempt is made outside the athlete's 60-minute time slot, SCP should again make all reasonable attempts to locate the athlete with no advance notice. If this is not possible, the TA/SCA should provide instructions to the SCP on how to proceed.

# Chapter 8

## Additional information about the sample collection

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When notified, the athlete has the right to ask for additional information about the sample collection process. For example:

- ❖ the athlete might ask information on the types of sample requested;
- ❖ the required volume of a sample;
- ❖ the sample collection equipment; or

- ❖ the time it will take for the results of the test to be available.

The SCP who is chaperoning the athlete should be trained sufficiently to provide responses to the athlete regarding their requests for additional information, however, if this is not the case, the SCP should refer the athlete to another, more senior and experienced DCO once the athlete enters the DCS.

# Chapter 9

## Over-hydration

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### PREPARING FOR THE SAMPLE COLLECTION SESSION

#### SECTION 1



### ATHLETE NOTIFICATION

#### SECTION 2



### CONDUCTING THE SAMPLE COLLECTION SESSION

#### SECTION 3



### STORAGE OF SAMPLES AND DOCUMENTATION

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### TRANSPORT OF SAMPLES AND DOCUMENTATION

#### SECTION 5



#### SECTION 6 POST-TEST ADMINISTRATION

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After being notified of their selection for a test, the athlete must be informed not to over-hydrate, since this may delay the production of a suitable sample for analysis due to the sample being too dilute. There are many factors that can affect the dilution of a urine sample, for example:

- ❖ the intensity and duration of a competition or training activity;
- ❖ the weather conditions and in particular the temperature;
- ❖ the way an athlete consumes fluids during the competition/training i.e., how frequently they hydrate during their activity; and
- ❖ an individual's metabolism.

As a guide, the consumption of 1-1.5 L of fluids after notification is not considered over-hydrating.

## Chapter 10

# A request to delay reporting to the DCS

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### PREPARING FOR THE SAMPLE COLLECTION SESSION

#### SECTION 1



### ATHLETE NOTIFICATION

#### SECTION 2



### CONDUCTING THE SAMPLE COLLECTION SESSION

#### SECTION 3



### STORAGE OF SAMPLES AND DOCUMENTATION

#### SECTION 4



### TRANSPORT OF SAMPLES AND DOCUMENTATION

#### SECTION 5



#### SECTION 6 POST-TEST ADMINISTRATION

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The athlete has the right to request a delay in reporting to the DCS or to leave the DCS, if they haven't completed the sample collection session.

ISTI Article 5.4.4 outlines a list of reasons (whether in-competition or out-of-competition) that are acceptable for the athlete to either delay reporting to, or temporarily departing from the DCS. However, it also refers to any other reasonable circumstances, as determined by the DCO, taking into account any instructions of the TA/SCA. As a result, the TA/SCA should provide instructions to the SCP on the requirements and the protocols of the sport or the specific situation. For example, a suitable reason could be to obtain warm clothing post competition if the event takes place outdoors during cold weather. Taking a shower should not be a reasonable request to delay or temporarily depart unless required for health and safety reasons,



for example, open water swimming in a lake with algae or if the athlete is selected for blood testing only. The final decision to permit the athlete a reasonable request to delay or temporarily depart the DCS lies with the DCO (and based on the instructions provided by the TA) and must be accepted only if the athlete can be chaperoned and kept under direct supervision by the SCP at all times. So, if a shower has been approved by the DCO, the SCP will be required to observe the athlete taking a shower.

The TA/SCA is also responsible for establishing guidelines for what constitutes suspicious athlete behavior that should be reported by SCP. A non-exhaustive list could include:

- ❖ evading observation or urinating in a shower;
- ❖ evading being appropriately observed during urine sample collection;
- ❖ ingesting an unidentified substance;
- ❖ where another athlete appears for testing who is not the correct athlete (athlete switching/impersonator);
- ❖ substitution or manipulation of a sample;
- ❖ making a distressed call to a coach; or
- ❖ any other unusual behavior.

For detailed guidance for SCP on examples of potential suspicious behavior by athletes refer to WADA's [Template DCO Manual Section 9](#).

# Chapter 11

## Access to the DCS

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### PREPARING FOR THE SAMPLE COLLECTION SESSION

#### SECTION 1



### ATHLETE NOTIFICATION

#### SECTION 2



### CONDUCTING THE SAMPLE COLLECTION SESSION

#### SECTION 3



### STORAGE OF SAMPLES AND DOCUMENTATION

#### SECTION 4



### TRANSPORT OF SAMPLES AND DOCUMENTATION

#### SECTION 5



#### SECTION 6 POST-TEST ADMINISTRATION

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ISTI Article 6.3.3 outlines the criteria for those persons that must be authorized to be permitted to enter the DCS or be present during the sample collection session in addition to SCP. This must include at a minimum:

- ❖ an athlete's representative and/or interpreter;
- ❖ a WADA-appointed observer or a WADA auditor; and
- ❖ an authorized person who is involved in the training of SCP or auditing the SCA.

In case the TA authorizes any other individuals to be present in the DCS such as an IF representative, they should inform the SCP in advance of the mission. Other permitted individuals should be free of any conflict

of interest and should be there to assist with the sample collection session following the instructions of the SCP. The duration and the name of such individuals in the DCS should be recorded by the SCP.

The TA/SCA must also establish criteria regarding what items may be prohibited within the DCS. For example, the provision of alcohol or its consumption is not permitted within the DCS (see ISTI 7.3.4), nor should the athlete consume alcohol prior to providing a sample (more guidance is provided in the [DCO Manual, Section 4.4](#)), the use of telephones (by all, including SCP) should be discretionary and video calls or recordings should be prohibited.

The TA/SCA should consider establishing an Entry/Exit system to control access to the DCS. Such system should monitor the flow of athletes, their support personnel and other individuals authorized to enter the DCS. It is recommended that the SCP, IF representative and WADA-appointed observer are not registered in such system due to the frequency of their movements in and out of the DCS.

# SECTION 3:

## CONDUCTING THE SAMPLE COLLECTION SESSION



### ISTI 7.1

Objective: To conduct the Sample Collection Session in a manner that ensures the integrity, identity and security of the *Sample* and respects the privacy and dignity of the *Athlete*.

This guideline only outlines the areas that the TA/SCA needs to establish criteria to assist SCP with the sample collection session as required by the ISTI. Such information should be provided to the SCP in advance of the sample collection session.

# Chapter 12

## Urine sample collection

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### PREPARING FOR THE SAMPLE COLLECTION SESSION

#### SECTION 1



### ATHLETE NOTIFICATION

#### SECTION 2



### CONDUCTING THE SAMPLE COLLECTION SESSION

#### SECTION 3



### STORAGE OF SAMPLES AND DOCUMENTATION

#### SECTION 4



### TRANSPORT OF SAMPLES AND DOCUMENTATION

#### SECTION 5



#### SECTION 6 POST-TEST ADMINISTRATION

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## ISTI C.1

Objective:

To collect an *Athlete's* urine *Sample* in a manner that ensures:

- a) Consistency with relevant principles of internationally recognized standard precautions in healthcare settings so that the health and safety of the *Athlete* and Sample Collection Personnel are not compromised;
- b) The *Sample* meets the Suitable Specific Gravity for Analysis and the Suitable Volume of Urine for Analysis. Failure of a *Sample* to meet these requirements in no way invalidates the suitability of the *Sample* for analysis. The determination of a *Sample's* suitability for analysis is the decision of the relevant Laboratory, in consultation with the Testing Authority for the Sample Collection Session in question;

*[Comment to C.1.(b): The measurements taken in the field for Suitable Specific Gravity for Analysis and the Suitable Volume of Urine for Analysis are preliminary in nature, to assess whether the *Sample* meets the requirements for analysis. It is possible there could be discrepancies between the field readings and the final Laboratory readings due to the precision of the Laboratory equipment. The Laboratory reading will be considered final, and such discrepancies (if any) shall not constitute a basis for *Athletes* to seek to invalidate or otherwise challenge an Adverse Analytical Finding.]*

- c) the *Sample* has not been manipulated, substituted, contaminated or otherwise tampered with in anyway;
- d) the *Sample* is clearly and accurately identified; and
- e) the *Sample* is securely sealed in a Tamper Evident kit.

For detailed guidance for SCP on the procedures for the collection of urine samples refer to WADA's [Template DCO Manual Section 6.1.](#)

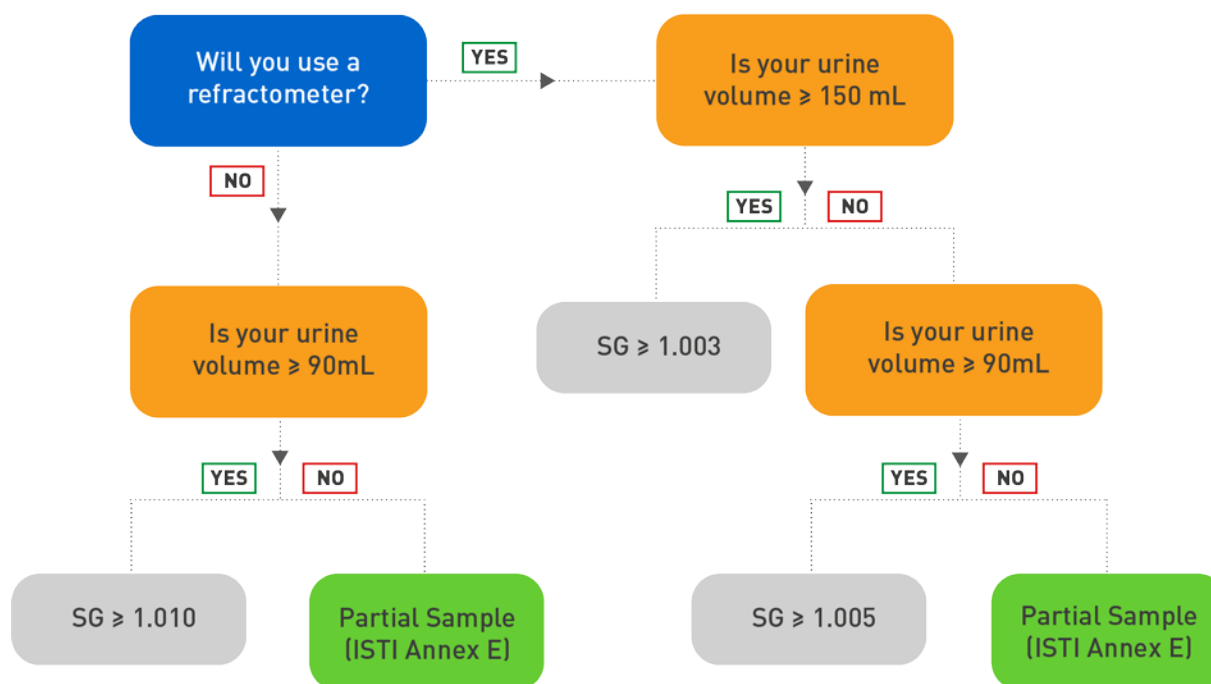
## 1. Suitable Specific Gravity for Analysis

The requirement for accepting a sample with a suitable specific gravity for analysis is either:

- ❖ a sample with a minimum volume of 90mL and less than 150mL, with a specific gravity of 1.005 or higher with a refractometer, or 1.010 or higher with lab sticks; or
- ❖ a sample with a volume of at least 150mL, with a specific gravity of 1.003 or higher with a refractometer only.

The diagram below outlines the steps to be followed when measuring the volume and specific gravity of a urine sample.

### Is the requirement for specific gravity (SG) met?



According to the requirements contained in the ISTI:

- ❖ the DCO must continue to collect additional samples until the requirement for suitable specific gravity for analysis is met<sup>3</sup>; or
- ❖ until the DCO determines that there are exceptional circumstances which mean it is impossible to continue with the sample collection session.

Any exceptional circumstances must be documented accordingly by the DCO.

For the DCO to determine whether exceptional circumstances exist, the TA may specify procedures to be followed by the DCO. Such exceptional circumstances may include, but are not limited to:

- ❖ the closure of a venue or location where the testing is taking place and no alternative location can be found nearby to continue sample collection;

<sup>3</sup> Note that it is not acceptable for the TA/SCA to have a starting maximum number of samples that will be collected irrespective of whether the requirement for suitable specific gravity is met (i.e., two samples maximum even if the second sample does not meet the requirements for suitable specific gravity).



- ❖ evacuation of all persons from a venue or location due to an emergency situation;
- ❖ all sample collection equipment has been used or not deemed suitable by the DCO;
- ❖ SCP or the athlete having to leave the venue to attend a hospital for medical treatment or attend to an emergency situation of an immediate family member; and/or
- ❖ athlete has provided a number of dilute samples, it is late in the evening and the athlete is due to compete early the next day.

The TA should consider target testing athletes as soon as possible when sample collection sessions have not been completed due to exceptional circumstances listed above. For scenarios not listed above and included in a TA's list of exceptional circumstances, the TA should provide SCP with a contact person who can make the decision to grant an exceptional request to end the sample collection session for an athlete.

## 2. Analysis of multiple samples

When two samples are collected from an athlete, during the same sample collection session, both samples must be analyzed by the Laboratory. In cases where three or more samples are collected during the same sample collection session, the Laboratory must prioritize and analyze the first and the subsequent collected sample with the highest specific gravity, as recorded on the Doping Control Form.

The TA, in conjunction with the Laboratory, may determine if the other samples need to be analyzed. The TA should consistently monitor the provision of dilute samples by athletes to identify any trends or suspicious behavior. If suspicious behavior is identified, the TA should consider alternative testing strategies, including analyzing all urine samples provided.

# Chapter 13

## Blood sample collection

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### PREPARING FOR THE SAMPLE COLLECTION SESSION

#### SECTION 1



### ATHLETE NOTIFICATION

#### SECTION 2



### CONDUCTING THE SAMPLE COLLECTION SESSION

#### SECTION 3



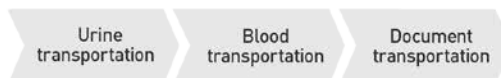
### STORAGE OF SAMPLES AND DOCUMENTATION

#### SECTION 4



### TRANSPORT OF SAMPLES AND DOCUMENTATION

#### SECTION 5



#### SECTION 6 POST-TEST ADMINISTRATION

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## 1. Venous blood

### ISTI D.1

Objective: To collect an *Athlete's* blood *Sample* by venipuncture in a manner that ensures:

- a) Consistency with relevant principles of internationally recognized standard precautions in healthcare settings, and is collected by a suitably qualified Person, so that the health and safety of the *Athlete* and Sample Collection Personnel are not compromised;
- b) The *Sample* is of a quality and quantity that meets the relevant analytical guidelines and requirements defined by the Laboratory;
- c) The *Sample* has not been manipulated, substituted, contaminated or otherwise tampered with in anyway;
- d) The *Sample* is clearly and accurately identified; and
- e) The *Sample* is securely sealed in a Tamper Evident kit.

### ISTI I.1.

Objective: To collect an *Athlete's* blood *Sample* by venipuncture, intended for use in connection with the measurement of individual *Athlete* blood variables within the framework of the hematological module of the *Athlete Biological Passport* program, in a manner appropriate for such use. The requirements of this Annex are additional requirements to those contained in Annex D – Collection of Venous Blood *Samples*.

For detailed guidance for SCP on the procedures for the collection of blood samples refer to WADA's [Template DCO Manual Section 6.2](#).

When planning a venous blood test, the TA/SCA needs to consider the type of analysis that will be conducted by the Laboratory and what blood collection tubes are required for sample collection. The following Prohibited Substances can be analyzed in blood:

- ❖ Erythropoietin receptor agonists (ERAs);
- ❖ Growth Hormone (GH) analysis using either the Isoforms or the Biomarkers method;
- ❖ The hematological module of the Athlete Biological Passport (ABP);
- ❖ Blood Transfusions (BT);
- ❖ Hemoglobin-based oxygen carriers (HBOCs); and

❖ Steroid esters.

Other Prohibited Substances which can also be analyzed in a blood sample (serum/plasma) but which may have limited availability at some Laboratories includes the following non-exhaustive list:

- ❖ Xenon;
- ❖ Insulin analogues;
- ❖ Desmopressin; and
- ❖ Insulin Growth Factors (IGF-1) analogues.

TAs/SCAs are advised to contact their Laboratory regarding the availability of other analysis types in advance of their collection.

When planning and conducting a sample collection session, the TA/SCA may want to collect a sufficient volume of blood or an additional urine sample to enable multiple types of analyses to be conducted simultaneously. For example, an ABP test may reveal abnormal variables that warrant immediate analysis of a urine and/or blood sample for Prohibited Substances or Methods. Also, should an Adverse Analytical Finding (AAF) be returned for a Prohibited Substance (e.g., ERAs) that was analyzed using a blood ABP sample, a B sample analysis could be requested. It is therefore strongly recommended to collect two tubes of blood when collecting blood ABP samples.

Conducting multiple types of blood analyses requires careful consideration regarding the equipment needed. The below table offers TAs/SCAs guidance on integrating multiple types of blood testing and the equipment required.

Test	Analysis matrix	Tubes#	V / tube (mL)	No. of tubes	Tube inversion
<b>GH Isoforms GH biomarkers – endocrine module of the ABP / HBOCs / blood steroid modules of the ABP / steroid esters / ERAs / TGFβ signalling inhibitors</b>	Serum	BD Vacutainer® SST II Plus (EU ref 367955) or BD Vacutainer™  SST II Plus Advance tubes (EU ref 367954) or BD Vacutainer® SST™ tubes, US ref 367986	5	2	At least 3

<b>Hematological module of the ABP<sup>4</sup> / BT<sup>4</sup> / Gene Doping<sup>5</sup></b>	Whole Blood	BD Vacutainer® EDTA (CE #368856, US #367856, AUS #367839)	3 - 4	1 <sup>6</sup> - 2	At least 3
<b>HBOCs<sup>4,5</sup> / steroid esters<sup>4,5</sup> / ERAs<sup>4,5</sup> / TGFβ signalling inhibitors<sup>4,5</sup></b>	Plasma	BD Vacutainer® EDTA (CE #368856, US #367856)	3 - 4	2	At least 3
<b>Steroid esters</b>	Serum / Plasma	Tubes containing esterase inhibitor NaF, with or without EDTA, with or without gel separator. Examples: BD Vacutainer® #367729, #367587  Kima #13808	2 - 7	2	At least 3

*Note: All venous blood samples should be refrigerated as soon as possible after withdrawal.*

<sup>4</sup> Since the analyses of the haematological Markers of the ABP and BT are performed on the blood cellular fraction, whole non-coagulated blood collected in K<sub>2</sub>EDTA tubes is required. For HBOCs/steroid esters/ERAs/TGFβ signalling inhibitors testing, analysis is done on the separated plasma fraction, which is obtained after centrifugation of the whole-blood Sample (e.g., on Ficoll gradient). These tests may be conducted on blood Samples specifically collected for that purpose or using the same blood Sample collected for ABP and/or BT analyses; however, in the latter cases the separation of the plasma fraction to conduct these tests shall be done only after the ABP and/or BT analyses have been concluded.

<sup>5</sup> For Gene Doping testing, whole non-coagulated blood collected in K<sub>2</sub>EDTA tubes is required. However, to avoid any potential cross-contamination, blood Samples collected for the analysis of the haematological Markers of the of ABP shall not be used for the application of the Gene Doping test. For Gene Doping testing, separate blood Samples shall be collected. However, once the Gene Doping Test using whole blood is concluded, the plasma fraction may be obtained for the conduct of other analyses (e.g., HBOCs/steroid esters/ERAs/TGFβ signalling inhibitors).

<sup>6</sup> Only one tube is necessary for the collection of an ABP Sample; however, it is recommended to collect two (2) tubes (A & B Samples), if other tests (e.g. HBOCs/steroid esters/ERAs/TGFβ signalling inhibitors) or further analysis is planned.

## 2. Capillary blood (i.e., dried blood spot (DBS))

### ISTI J.1

Objective: To collect an *Athlete's* blood as a dried blood spot *Sample* in a manner that ensures:

- a) Consistency with relevant principles of internationally recognized standard precautions in healthcare settings, and is collected by a suitably qualified *Person*, so that the health and safety of the *Athlete* and Sample Collection Personnel are not compromised;
- b) The *Sample* is of a quality and quantity that meets the relevant analytical requirements;
- c) The *Sample* has not been manipulated, substituted, contaminated or otherwise tampered with in anyway;
- d) The *Sample* is clearly and accurately identified; and
- e) The *Sample* is securely sealed in a Tamper Evident kit.

For detailed guidance for SCP on the procedures for the collection of DBS samples refer to WADA's [Template DCO Manual Section 6.2.4.](#)

## Planning for Analysis

When planning a DBS test, the TA/SCA needs to consider the type of analysis that will be conducted by the Laboratory and the volume required.

The analysis of DBS samples is performed in WADA-accredited Laboratories. However, as it is currently not mandatory for all WADA-accredited Laboratories to conduct analysis of DBS samples, the TAs/SCAs are advised to contact the WADA-accredited Laboratories regarding the availability of analyses in advance of the collection.

The current scope of DBS testing covers the detection of Non-Threshold Substances with no Minimum Reporting Levels (MRL) only.

The volume of capillary blood removed must be adequate to satisfy the relevant analytical requirements for the sample analysis to be performed. In principle, a minimum total of approximately 40 µL of capillary blood in the "A" spot(s) and a minimum total of approximately 20 µL of capillary blood in the "B" spot(s) is sufficient for chromatography-mass spectrometric Analytical Methods. These volumes are the minimum volumes required and it is recommended to collect a total of approximately 60 µL of capillary blood in the "A" spot(s) and a total of approximately 40 µL of capillary blood in the "B" spot(s) when possible. Other special analyses

or additional analyses by chromatography-mass spectrometry may require additional samples and/or increased sample volume. If the volume collected isn't sufficient to cover the analyses requested by the TA, the Laboratory will ask the TA to prioritize them.

While with some DBS sample collection devices, the volume of capillary blood collected is known, when DBS samples are collected by finger-pricking and the drop of blood is directly applied onto the cellulose card, the exact volume deposited is not known. Typically, a spot volume of 20 – 70 µL is generated if free falling drops of capillary blood are collected, while the volume collected is 15 – 50 µL if a hanging drop is directly brought into contact with the cellulose card.

## Sites of Puncture

Depending on the sample collection equipment used by the SCA, two sites of puncture may be used for the collection of DBS samples:

- 1) Cellulose-based cards (or alternative material/absorbent sample support), used in conjunction with lancets, are used to collect the DBS samples from the fingertip.
- 2) Devices with integrated microneedle(s)/microlancet(s) are used to collect the DBS samples from the upper arm.

If more than one attempt is needed to collect a sufficient volume of capillary blood, the DCO/BCO must select another site of puncture for the second and/or third attempt. That other site of puncture may be on the same finger or upper arm, or on a different one.

Alternative suitable sites of puncture, such as earlobes or the abdomen, may be used for athletes with physical impairments, if needed. However, it is recommended to contact the equipment manufacturers for information on the performance of the available devices on alternative puncture sites. These alternative sites of puncture are not recommended for athletes without physical impairments, unless strictly required because of circumstances such as injuries or if the skin on the hands or arms does not permit the collection of a sample for the fingertip and/or the upper arm (for example because of scar tissues or recent tattoos, i.e., within the last six months). The use of an alternative site of puncture must be documented by the DCO.

To increase the blood flow and for a successful collection, the DCO/BCO must instruct the athletes to warm the site of collection. Different techniques can be used, such as washing the hands in warm water, shaking the hand/arm, massaging the puncture site, or placing the hand/arm in a warm blanket or equivalent. The period needed for the warming of the puncture site will vary depending on the environmental conditions (e.g., temperature), but it is recommended to continue until the site of puncture is warm to the touch.

## Requirements for DBS sample collection equipment

In addition to the mandatory requirements for the DBS sample collection equipment listed in the ISTI, the DBS sample collection equipment should also meet the following criteria:

- ❖ The absorbent sample support should be made of untreated cellulose paper or alternative absorbent material (e.g., synthetic polymer). ADOs should always consult with the laboratories before choosing the type of absorbent sample support to use;

[Comment: If specific absorbent sample supports have been indicated in an applicable WADA International Standard, TD or Guidelines, then the use of an alternative sample support shall be

validated with the involvement of the relevant Laboratory(ies) and approved by WADA prior to use for sample collection.]

- ❖ Allow a reliable and consistent DBS sample collection (e.g., no clotting of blood before the dried blood spots are deposited onto the absorbent sample support); data from the equipment manufacturer and/or results of testing by a testing institution that is independent of the manufacturer may be used for the assessment of product reliability (e.g., expected failure rate of DBS collection);
- ❖ Allow the collection of a known volume of capillary blood and its application on an absorbent sample support and/or allow hematocrit correction/measurement;
- ❖ Have a built-in indicator or similar visual cues showing that an acceptable volume of sample has been collected;
- ❖ DBS sample collection devices with integrated microneedle(s)/microlancet(s) should allow collection and direct depositing on the absorbent sample support without physical manipulation by the SCP (e.g., does not require on-site pipetting at the DCS, thus avoiding risk of contamination of the DBS sample);

[Comment: When a DBS sample is collected by finger-pricking, the use of capillary tubes to transfer blood from the finger-prick to the absorbent sample support is permitted but should not be encouraged. In any case, it is important to only use capillary tubes that are untreated and do not contain anticoagulants.]

- ❖ The sample container should be designed to prevent the absorbent sample support from adhering to the sample container (e.g., spacer); and
- ❖ The “A” and “B” samples should be noticeably and easily separable without physical manipulation of the absorbent sample support after collection (e.g., no cutting a DBS card with scissors).

## Analysis of multiple samples

When two or more DBS samples are collected from an athlete, during the same sample collection session, only one sample must be analyzed by the Laboratory, unless otherwise instructed by the TA and/or required by the Analytical Testing Procedure (for example if the laboratory needs to combine several DBS samples to have a sufficient volume to perform the required Analytical Testing Procedures).



# SECTION 4: STORAGE OF SAMPLES AND DOCUMENTATION



## ISTI 8.1

Objective: To ensure that all *Samples* collected at the Doping Control Station and *Sample* collection documentation are securely stored prior to transport from the Doping Control Station.

ISTI Article 8.3.1 states that SCAs must define criteria ensuring that each sample collected is stored in a manner that protects its integrity, identity and security prior to transport from the DCS. Minimum criteria includes:

- ❖ detailing and documenting the location where samples are stored; and
- ❖ who has custody of the samples and/or is permitted access to the samples.

The SCP must ensure that any sample is stored in accordance with these criteria.

Urine samples can be stored at room temperature or in a cool environment to avoid warm conditions. However, if the samples are not to be provided to the courier the same day as collected and transported to the Laboratory without delay, it is recommended to liaise with the Laboratory and to consider refrigerating or freezing the samples during storage to minimize sample degradation due to factors like time delays and hot temperature conditions.

Venous blood samples must be stored in a cooled state immediately after collection, preferably in a refrigerator or cool box. The temperature must be monitored with a temperature data logger.

DBS samples can be stored at room temperature or in a cool environment. As best as possible, the objective is to avoid storing DBS samples in warm conditions.

For detailed guidance for SCP on the procedures for using a temperature data logger refer to WADA's [Template DCO Manual Section 6.2.3.](#)

# Chapter 14

## Chain of custody

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### PREPARING FOR THE SAMPLE COLLECTION SESSION

#### SECTION 1



### ATHLETE NOTIFICATION

#### SECTION 2



### CONDUCTING THE SAMPLE COLLECTION SESSION

#### SECTION 3



### STORAGE OF SAMPLES AND DOCUMENTATION

#### SECTION 4



### TRANSPORT OF SAMPLES AND DOCUMENTATION

#### SECTION 5



#### SECTION 6 POST-TEST ADMINISTRATION

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The TA/SCA must develop a system for recording the Chain of Custody of the samples and doping control documentation, including confirmation that both the samples and documentation have arrived at their intended destinations.



WADA provides a [Chain of Custody](#) template on its website

The TA/SCA must also develop a system to ensure that, where required, instructions for the type of analysis to be conducted are provided to the Laboratory conducting the analysis e.g., via the Chain of Custody Form.

In addition, the TA/SCA must provide the Laboratory with information on the samples that do not reveal the identity of the athlete but can be used for result reporting and statistical purposes and include whether sample retention is required.

For venous blood samples collected for the analysis of GH in serum using the Biomarkers method, the age of the athlete (rounded down to the nearest year) needs to be included in the documentation that will accompany the samples to the Laboratory.

For detailed guidance for SCP on the storage of samples and documentation refer to WADA's [Template DCO Manual Section 8](#).

# SECTION 5:

## TRANSPORT OF SAMPLES AND DOCUMENTATION



### ISTI 9.1

- a) To ensure that *Samples* and related documentation arrive at the Laboratory that will be conducting the analysis in proper condition to do the necessary analysis; and
- b) To ensure the Sample Collection Session documentation is sent by the DCO to the Testing Authority in a secure and timely manner.

The TA/SCA must authorize a transport system that ensures samples and documentation are transported to the Laboratory in a manner that protects their integrity, identity and security. The TA/SCA will delegate the responsibility to transport samples and documentation to the DCO.

Samples may be taken directly to the Laboratory by the DCO, or handed over to a third party for transportation e.g., a courier company. If a courier company is used to transport the samples, the DCO should record the identification number of the shipment (e.g., waybill number).

Laboratories are required to document receipt and the subsequent Chain of Custody of samples in accordance with the International Standard for Laboratories.

## Chapter 15

# Transportation of urine samples

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### PREPARING FOR THE SAMPLE COLLECTION SESSION

#### SECTION 1



### ATHLETE NOTIFICATION

#### SECTION 2



### CONDUCTING THE SAMPLE COLLECTION SESSION

#### SECTION 3



### STORAGE OF SAMPLES AND DOCUMENTATION

#### SECTION 4



### TRANSPORT OF SAMPLES AND DOCUMENTATION

#### SECTION 5



#### SECTION 6 POST-TEST ADMINISTRATION

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Samples must always be transported to the Laboratory that will be analyzing the samples using the TA/SCA's authorized transport method, as soon as possible after the completion of the sample collection session. If for any logistical reasons the immediate transportation of urine sample is not possible, such transportation should occur **no later than seven** days from the date of collection.

Samples must be transported in a manner which minimizes the potential for sample degradation due to factors such as time delays and high temperatures. If the samples are not to be transported to a Laboratory immediately, it is recommended to liaise with the Laboratory and discuss transportation conditions such as refrigerating or freezing samples during storage to minimize sample degradation.



# Chapter 16

## Transportation of blood samples

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### PREPARING FOR THE SAMPLE COLLECTION SESSION

#### SECTION 1



### ATHLETE NOTIFICATION

#### SECTION 2



### CONDUCTING THE SAMPLE COLLECTION SESSION

#### SECTION 3



### STORAGE OF SAMPLES AND DOCUMENTATION

#### SECTION 4



### TRANSPORT OF SAMPLES AND DOCUMENTATION

#### SECTION 5



#### SECTION 6 POST-TEST ADMINISTRATION

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### 1. Venous Blood

Blood samples must be transported to the Laboratory in a device that:

- ❖ maintains the integrity of samples over time;
- ❖ maintains a cool and constant environment, measured by a temperature data logger;
- ❖ prevents a blood sample from freezing; and
- ❖ is not affected by changes in the external temperature of the device.



The device must be transported by secure means using a method authorized by the TA/SCA. TAs/SCAs are encouraged to discuss with the Laboratory any other requirements for blood sample transportation e.g., for GH analysis samples could be placed in an upright position during transport.

If the temperature deviates from a cool and consistent temperature as identified by the temperature data logger, for a period of time likely to affect the composition of a blood sample as determined by the recipient Laboratory, the TA and Laboratory must determine if sample analysis should proceed.

In addition to recording the temperature during transport, the temperature data logger should be used to assess the time from sample collection to the time received by the Laboratory ('turnaround time'). All times should be recorded in Greenwich Mean Time (GMT) to address any potential time zone conflicts.

Blood samples are to be dispatched as soon as possible after collection, ideally arriving at the Laboratory on the same day. For maximum timeframes of delivery by type of analysis, TAs/SCAs can refer to the below table.

Type of analysis	Time between collection and analysis
<b>GH analysis with the Isoforms method</b>	96 hours from collection <sup>7</sup>
<b>GH analysis with the Biomarkers method</b>	120 hours from collection <sup>8</sup>
<b>ERAs, HBOCs or Blood transfusions analysis</b>	72 hours from collection

Due to the stringent temperature and analysis requirements for blood, detailed above, blood and urine samples may be transported separately. However, the relevant paperwork linking the blood and urine samples must be included with each shipment so the Laboratory is aware that there is a corresponding sample from the same athlete.

<sup>7</sup> For more details, please refer to the Technical Document for GH in effect on WADA's website.

<sup>8</sup> For more details, please refer to the Guidelines on the hGH Biomarkers Test in effect on WADA's website.

In addition to the details included in the ISTI (specifically, ISTI I.4.3 and I.4.4), the table below offers guidance related to the maximal time ABP samples must arrive at the Laboratory ('CRT' – Collection to Reception Time) based on the average temperatures the samples will be kept at ('T').

For example, using the table below, if ABP samples will be kept at an average temperature of **8 °C** between sample collection and analysis, the transport method used must ensure that the samples arrive at the Laboratory within **48 hours** of collection.

T [°C]	CRT [h]
15	27
12	36
10	42
9	45
8	48
7	51
6	54
5	57
4	60

## 2. Capillary blood (i.e., DBS samples)

Samples must always be transported to the Laboratory that will be analyzing the samples using the TA/SCA's authorized transport method, as soon as possible after the completion of the sample collection session. If for any logistical reasons the immediate transportation of DBS sample is not possible, such transportation should occur **no later than seven** days from the date of collection.

Samples must be transported in a manner which minimizes the potential for sample degradation due to factors such as time delays and high temperatures. Unlike venous blood, subject to applicable regulations, DBS samples can be shipped as non-hazardous materials using regular mail or courier services. It is also recommended that DBS samples be transported in a non-transparent transport box or bag to protect the samples from light exposure.

The DBS samples are stable and do not have to be refrigerated for their transport. If a SCA collects urine and/or venous blood samples during the same sample collection session, DBS samples can be shipped to the Laboratory together with the urine and/or venous blood samples.

# Chapter 17

## Transportation of doping control documentation

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### PREPARING FOR THE SAMPLE COLLECTION SESSION

#### SECTION 1



### ATHLETE NOTIFICATION

#### SECTION 2



### CONDUCTING THE SAMPLE COLLECTION SESSION

#### SECTION 3



### STORAGE OF SAMPLES AND DOCUMENTATION

#### SECTION 4



### TRANSPORT OF SAMPLES AND DOCUMENTATION

#### SECTION 5



#### SECTION 6 POST-TEST ADMINISTRATION

Doping control documentation containing information for the Laboratory must accompany the samples in the relevant transportation containers. The TA/SCA should create a system to receive the doping control documentation from the appointed SCP to a sample collection session, in a manner that protects their integrity, identity and security, as soon as possible and not longer than **three** business days after the sample collection.

For detailed guidance for SCP on the transportation of samples and documentation refer to WADA's [Template DCO Manual Section 8](#).

## SECTION 6:

# POST-TEST ADMINISTRATION



Following a sample collection session and once doping control documentation has been received by the TA/SCA several actions are required by the TA/SCA:

- 1) Doping Control Forms must be entered in ADAMS within **21** days of sample collection.
- 2) Update your TDP.



ADAMS includes a TDP planning and monitoring tool.

- 3) Review doping control documentation to:
  - ❖ identify any procedural irregularities or errors in documentation;
  - ❖ identify if a refusal or failure to comply by an athlete at the sample collection session was reported and then start an initial investigation;
  - ❖ review and identify any trends with the sample collection session of an athlete e.g., always provides dilute samples, is only available in the last few minutes of their 60-minute slot, etc.;
  - ❖ review and monitor the performance of the SCP;
  - ❖ review any athlete or SCP comments in relation to the sample collection session; and
  - ❖ review information reported by SCP e.g., on suspicious behaviour of athletes or athlete support personnel.
- 4) Store documentation related to a sample collection session and or an anti-doping rule violation in accordance with the International Standard for the Protection of Privacy and Personal Information (ISPPPI).
- 5) Conduct an inventory check of sample collection equipment, doping control documentation and supplies used and replenish the SCP with equipment if necessary.

## ANNEX A:

# List of responsibilities for TAs/SCAs prior to, during, and post sample collection

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### Introduction, scope and general principles

The purpose of this checklist is to assist the TA in ensuring that the SCA to which it delegates sample collection performs it in a manner that is compliant with the Code and ISTI. It includes activities that the TA must confirm with the SCA. However, ISTI Article 4.9.2 acknowledges that a TA may, through contractual agreement with a SCA, specify how any discretion is afforded to a SCA when collecting samples on its behalf.

Where the SCA is the TA itself - in the majority of cases a National Anti-Doping Organization (NADO) - this checklist can be used to verify that internal processes are in place for implementing the activities relating to the collection of samples.

The scope of this checklist involving TA/SCA coordination encompasses the steps from preparing for the sample collection to the transport and storage of samples, as well as the requirements to collect intelligence and comply with data privacy and confidentiality requirements. It does not include the athlete selection process or any other technical details of the ISTI.

A TA's authorization to a SCA to conduct testing must be documented. As a general principle, the contractual agreement between a TA and a SCA must include guarantees that the SCA has the necessary procedures in place to ensure compliance with the Code and relevant International Standards, as applicable.

### Preparing for the Sample Collection Session

- ❖ Ensure that SCA's SCP are trained and accredited for their assigned responsibilities, including capturing and reporting anti-doping intelligence. In particular, check that:
  - they have no conflict of interest;
  - they are not Minors; and
  - their accreditation is valid under the required two-year timeframe.
- ❖ Ensure that the SCA will provide a suitable ratio of SCP to the number of athletes to be tested, keeping in mind whether any athletes who are minors may be tested.
- ❖ Ensure that the Doping Control Station (DCS) meets the minimum criteria set forth in the ISTI Article 6.3.2.
- ❖ Determine who may be authorized to be present during the sample collection session (in addition to the SCP) in line with ISTI Article 6.3.3.

- ❖ Ensure that the SCA uses sample collection equipment systems complying with the requirements listed in ISTI Article 6.3.4.
- ❖ Ensure that the SCA uses doping control documentation recording the information listed in ISTI Article 7.4.5.
- ❖ Instruct the SCA about reasonable circumstances permitting an athlete to delay reporting to the DCS.
- ❖ Inform the SCA in advance where athletes with impairments could/are to be tested, including details of such impairment that may affect the sample collection procedure.
- ❖ Inform the SCA in advance where athletes who are minors could/are to be tested, including confirming that parental consent for testing the participating athlete who is minor has been obtained. For example, this can be implemented:
  - as part of a minor's condition of membership with their national federation;
  - as a condition of participating in an event; or
  - through a dedicated form or process with the TA.
- ❖ Decide, in the case of an athlete with an intellectual impairment, whether to obtain consent to testing from their representative and inform the SCA.
- ❖ Consider the appropriate course of action when no athlete representative is present at the testing of an athlete with an intellectual impairment or who is a minor.

## Athlete Notification

- ❖ Ensure tests are conducted with no advance notice – exceptional and justifiable circumstances for advance notice must be documented and reported to the TA.
- ❖ Instruct SCA about the TA's policy for testing outside the 60-minute time slot.
- ❖ Ensure detailed report for unsuccessful attempt(s) are obtained from the SCA as soon as possible after it has occurred.
- ❖ Provide the TA's authorization letter to SCA (it can be generated through ADAMS), and instruct the SCA to show it to the athletes selected for testing.
- ❖ Confirm that the SCA's DCOs have complementary identification including their name and picture and they show it to the athletes.
- ❖ Give clear instruction on how to validate the identity of the athlete selected to provide a sample.
  - Note: although the type of identification of an athlete must be documented (e.g., driving license, passport, etc.), the document number must not be recorded.
- ❖ Confirm that where the athlete's identity cannot be verified according to the criteria established by the TA, that this must be documented including the taking of a photograph of the athlete and reported to the TA.

## Conducting the Sample Collection Session

- ❖ Instruct the SCA to collect samples until they meet the requirement for the Suitable Specific Gravity for Analysis.
- ❖ Specify procedures to be followed by the DCO in determining whether exceptional circumstances exist that make it impossible to continue with a sample collection session.

## Security / Post-Test Administration

- ❖ Confirm the transport system of samples to be used.
- ❖ Ensure that Laboratory(ies) is (are) duly instructed about the analysis to be conducted on all samples and the reporting times for results.
- ❖ Require that sample collection session documentation, including the Laboratory chain of custody is sent to the TA in a secure and timely manner.
- ❖ Instruct SCA to record DCFs into ADAMS within **21** days from the date of the sample collection or the system in place for DCFs to be returned to the TA.
- ❖ Any deviation from the ISTI and specific TA's instructions must be documented and reported to the TA.
- ❖ Any incident, irregularity or suspicious athlete's behavior that may undermine the validity of the sample or may lead to the TA's determination to investigate a Failure to Comply, must be documented and reported to the TA as soon as possible after it has occurred.

## Collection of intelligence

- ❖ Request that SCP capture and receive anti-doping information or intelligence in the field, and that those are promptly reported to the TA e.g., via test, incident or intelligence reports.

## Data privacy and confidentiality requirements

- ❖ Ensure, through the contractual agreement, that the SCA complies with the ISPPPI and all applicable data protection laws. Specifically, as some personal data are disclosed to the SCA conducting sample collection under the authority of the TA, the SCA must ensure that:
  - access to personal information takes place only on a need-to-know basis and where consistent with assigned roles and responsibilities;
  - confidentiality agreements and/or contractual confidentiality clauses are established with all SCA staff and SCA's agents or subcontractors accessing personal information, including all SCP;
  - sufficient guarantees are provided in accordance with applicable law and the ISPPPI, as it relates to security safeguards (see ISPPPI Articles 9.3 and 9.4 and the Guidelines for the ISPPPI, Chapter 6 for additional guidance);
  - it only retains its copies of doping control documentation for the period specified in the ISPPPI Annex A, and destroys such copies thereafter; and





- prompt notification and assistance is provided to the TA where athletes assert rights under the ISPPPI and applicable data protection laws, or in the event of a security breach.