

Acknowledgements

The XV Pan American Games, held in Rio de Janeiro, Brazil, 14-29 July 2007 included a Doping Control Program that was the largest in the history of the Games. 1274 urine samples were collected from the 5633 athletes participating at the Games. For many of the athletes, this was their first experience with Doping Control and we commend the Pan American Sports Organization (PASO) for conducting the Doping Control Program with the professionalism and effectiveness demonstrated throughout the Games.

In order to fulfill its mandate, the Independent Observer (IO) Team relied on the support and assistance of many people during the Games. First and foremost, we would like to thank the Pan American Sports Organization (PASO) for their invitation to attend this event. The Chair of the PASO Medical Commission (MC), Dr Eduardo De Rose, deserves a special thank you as his full support of the role of the IO Team, and anti-doping in general, is evident and one of the main reasons why the Doping Control Program at the Pan Am Games was a success.

We would also like to thank the individual members of the PASO MC for their cooperation and openness. The interaction between the PASO MC and the IO Team was fruitful and appreciated. In addition, the cooperation of the staff at the WADA accredited laboratory in Rio, led by Professor Francisco Radler Aquino, was a great assistance to the IO Team during the Games.

We would also like to thank the Doping Control Services of CO-Rio for their hard work during the Games. At every level, we met doping control staff committed to doping free sport and the message of fair play. We would like to commend them all for a job well done!

Finally, we wish to acknowledge the athletes who participated cleanly in the XV Pan American Games. Continue to participate in sport for all of the right reasons and ensure your voice is heard in your support for doping free sport.

*The Independent Observer Team
XV Pan American Games
Rio de Janeiro, BRAZIL
July 2007*

PASO/World Anti-Doping Agency Agreement and Compliance

An Agreement was signed between the World Anti-Doping Agency (WADA) and PASO to permit an IO Team to observe all aspects of the Doping Control Program for the XV Pan American Games. The terms of the Agreement were met with full cooperation from PASO, who ensured the IO Team had full access to any and all resources to fulfill its mission.

The PASO anti-doping rules were covered through Section XII of their Statutes and the accompanying Doping Control Manual, which was deemed "an essential component and compliment to the PASO Statutes and the Regulations of the Pan American Games". These Rules are accepted, for the purposes of this mission and Report, as meeting the obligations of PASO to adopt and implement rules which give effect to the World Anti-Doping Code.

The Mission

Objective

The aim of the WADA IO/Audit program is to complement effective Doping Control programs during Major Games or sporting events. The observation/audit shall provide a system of evaluation to assess whether or not procedures conform to the existing documented standards and rules and to provide on-site advice, guidance or assistance as may be needed. If non-conformities are identified, the need for corrective action can be suggested and improvements can be made in a timely manner.

The IO Team

The WADA IO Team for the XV Pan American Games consisted of:

- Luis Horta – Director of Sports Institute and member of National Anti-Doping Council (CNAD), (Portugal) – Chair
- Shin Asakawa – Chief Executive Officer, Japan Anti-Doping Agency (Japan)
- Catherine Ordway – Group Director, Detection, Australian Sports Anti-Doping Authority (Australia)
- Tom May - Manager, Doping Control Policy and Development, WADA Staff (Canada)

Methodology

The terms of the Agreement between WADA and PASO established the base guidelines for the role of the IO Team at the Pan Am Games. The PASO MC provided for complete access to the IO Team throughout the Games, thus ensuring a collaborative approach to ensuring the most effective Doping Control Program.

The IO Team attempted to observe all aspects of the Doping Control Program at the Games, including:

- In and Out of Competition Testing
- Athlete selection processes
- Athlete notification and chaperoning
- Urine sample collection procedures
- Chain of custody procedures
- Delivery of samples to the laboratory
- Sample analysis processes at the laboratory
- All Doping Control documentation
- Therapeutic Use Exemption Committee meetings
- Use of ADAMS during the Games
- Result management process, and
- Hearings conducted during the period of the mission.

The IO Team attended every PASO MC meeting during the Games. At these meetings the IO Chair was able to listen to the MC members discuss what they observed in the field and any other anti-doping issues that arose. In addition, the IO Chair presented a verbal report on the key issues that the IO Team observed the previous day.

Daily written reports were provided to the PASO MC. These reports included the information that the IO Chair verbally reported to the MC, in addition to other issues that the IO Team felt were important to report.

In most occasions the PASO MC agreed with our observations and corrected the issues. However, there were a few occasions where we reported a recurring issue to the PASO MC several times but no formal corrective action was reported or appeared to be taken. In some instances the PASO MC indicated to the IO Team that they had attempted to correct the issue by verbally informing the Doping Control personnel; however the personnel did not always follow their instructions. However, with no formal corrective action procedure in place for the Games, we can only report on what we observed.

At the venues, the IO Team would only intervene or provide immediate feedback to the Doping Control staff if, in the view of the IO Team member, there was the potential to affect the validity or integrity of the sample. This occurred on a couple of occasions and was reported immediately to the Chair of the PASO MC or to the PASO MC the next day.

Observations

Doping Control

Overall, the Doping Control Program at the Pan Am Games was conducted very well and in accordance with the PASO Rules and Doping Control Manual. The Doping Control Personnel, including the Venue Managers, Doping Control Officers and Chaperones appeared to be well trained and had the necessary skills to complete their duties effectively. It was evident, however, that many of the DCOs had little or no experience in conducting an actual sample collection session. While they were comfortable in directing athletes on how to complete the process, they were often not able to answer questions properly or appeared at times to be uncomfortable / unsure of why particular aspects of the process were required. However, in all sample collection processes observed, the validity and integrity of the samples was maintained at all times.

Out of Competition Testing

In addition to its In Competition Testing Program, the PASO MC also conducted Out of Competition Testing (OOCT) throughout the Games. Athletes were selected at random and the testing took place at the Pan American Village (Village). In general, the OOCT program went well. The key observations were:

- The PASO MC used the Anti-Doping Administration and Management System (ADAMS) to conduct the athlete selections for the OOCT Program. While this was an effective way to conduct the selections, it was dependent on the Team Lists being entered into ADAMS. The PASO MC decided to wait until the WADA staff arrived, on July 7th, to do this. Therefore, the OOCT did not start until July 9th. This resulted in a gap of 6 days between the opening of the Village (July 3rd) and the start of the OOCT where athletes who were in the Village were not subject to testing.
- The Doping Control team at the Village, in particular at the beginning of the Games, did not take into account the Competition/Sport Schedule for that day. The IO Team observed a couple of instances where an Athlete was selected for an OOCT at the Village even though they were involved in specific sport activities on that day (i.e. athlete weigh-in). This resulted in the Athletes being released from the Doping Control at the Village and subsequently tested at the competition venue later that day.

- In addition, the ability to ensure that unannounced no advance notice testing occurred at the Village was at times difficult. The Doping Control Personnel were not permitted to enter the Athlete Residence and knock on the specific athlete's door. Therefore, they had to talk to the National Olympic Committee (NOC) staff to determine what athletes were present. The Doping Control personnel would normally try to keep it very general (i.e. by saying "are any members of the women's rowing team present?"); but in a few cases, the Chaperones were observed providing the names of the athletes who were selected for testing to the NOC staff. In these cases, the athletes were often not present and therefore the tests may have turned into an Advance Notice test.

Preparation for Sample Collection Process

The selection of athletes for the In Competition Testing (ICT) generally followed the International Federation guidelines or requests. It did concern the IO Team that in a couple of sports, the IF delegate requested that the athletes who were tested on the previous day not be selected for testing on the subsequent day. This request was made, despite the fact that the athletes were often competing in finals, resulting in a situation where even if an Athlete finished first in the event, they would not be selected for testing.

The documentation used at the Pan Am Games was prepared specifically for the Games. The Doping Control Form contained all of the necessary information. The IO Team was concerned over the format of the Chain of Custody Form (CoC Form). The CoC Form used was not a carbon copy; it was a single piece of paper where the DCO would record the sample code numbers and transport bag sealing information. The DCO would have to re-record all of the information on a 2nd CoC Form in order to have two copies available (one for PASO and one for the laboratory). This increased the potential for errors during the Chain of Custody process. After the first couple of days of the Games, the DCOs began to insert one of the extra bar code stickers on the CoC Form; however, the DCOs still had to write the numbers on the 2nd copy of the form.

The lack of a standard DCO Report for each session was a concern to the IO Team. The DCOs were instructed to write a report when something extraordinary occurred. During the Games, the IO Team witnessed a few issues that we felt would warrant a DCO report. However, we were not aware of any DCO Reports being written throughout the Games. In addition, the absence of a Supplementary Report Form created a problem at least once when an athlete declared a large number of medications. This could also potentially create problems in situations where DCOs had to report to a failure to comply or where extensive comments about the procedure were needed.

The Doping Control Stations at most venues had allowed for adequate waiting and processing space and provided the privacy necessary to the Athletes during the sample collection process. Many venues were new and the Doping Control Stations were temporary structures. While there were a few minor problems with a couple of the Stations, overall their structure and functionality was well planned. The size of the temporary toilets (being single 'portaloo' style rather than the larger disabled toilet style), created some challenges in witnessing the samples; however the Doping Control Staff managed appropriately. The access to the Doping Control Stations, maintained by an Entry/Exit Log was very well done by the Doping Control Staff at all the venues.

Notification

The notification and chaperoning of Athletes selected for Doping Control was done in accordance with the PASO rules. It was evident that a lot of thought and organization went into determining the best process to notify the athletes. Some sports pose significant challenges in the notification and chaperoning of athletes but these appeared generally to have been previously identified by the Doping Control staff and taken into account in setting up the testing.

One issue observed by the IO Team was the fact that the Chaperones were not always able to maintain visual contact with the athletes during the Medal Ceremonies. There were occasions where the Chaperones followed the athletes out to the Medal Ceremonies; however when the ceremony was over they were told to wait in the back while the Athletes made their "victory tour". During this time the Chaperones could not maintain visual contact with the Athletes; although the athletes were in full view of the spectators.

In a couple of sports, the Athletes who were selected for Doping Control were notified even though they were competing in another event during the day (i.e. swimming). There was no issue with the Chaperoning and Notification of these athletes; in fact it was very well done. However, we would like to note that this was not in accordance with the PASO Rules, where Article 3.1 states, "If an Athlete is participating in further competitions on the same day, he/she will be notified at the end of his/her competition schedule for the day". This requirement may be impractical in some sports; therefore PASO may wish to consider removing this wording from their rules for future Games.

Urine Sample Collection Procedure

The urine sample collection during the Games was generally done in accordance with the PASO Rules and Doping Control Manual as well as the International Standard for Testing. However, there were a few key issues that were observed.

- Instead of manually recording the sample code number on the Doping Control Form, PASO decided to use bar code stickers that the DCO would manually put on each copy of the Doping Control Form. While the pros and cons to this type of system can be debated, there was one particular issue that was a big concern to the IO Team. On several occasions, different DCOs were observed putting the bar code sticker on only the top copy of the Doping Control Form and then asking the Athlete to sign the form. They would then put the sticker on the Athlete copy of the form, give the athlete their copy and let them leave the Doping Control Station. Only after the Athlete had left the station did the DCO finish putting the bar code stickers on the rest of the copies of the Doping Control Form, including the laboratory copy. Despite being reported several times to the PASO MC, this practice continued to be observed in the field.
- During the Aquatics events, most of the USA athletes and their representatives voiced their concern over the perceived lack of anonymity on the laboratory portion of the Doping Control Form. They were concerned that by recording the exact event of the athlete, along with the gender, the laboratory may be able to identify who the sample belonged to. These concerns were virtually ignored by the PASO MC. While the IO Team does not have an opinion on the merits of the issue raised, we note that the PASO MC chose to not follow up with the team. A courtesy follow up with the USA team may have been appropriate to alleviate their concerns. While the Gender is required information for the laboratory, the

issue regarding the exact event could have been easily resolved, for example, if the DCOs were instructed to use, in section 3 (Information for Analysis) of the DCF, the box of "Sport Federation" to record the designation of Sport (i.e. Aquatic Sports) and the box of "Event" to record the designation of Discipline (i.e. Swimming).

- One issue, while out of the control of the PASO MC, that caused some problems in the field was the apparent discrepancy between the volume measurements on the Collection Vessel and the corresponding volume markings on the Berlinger kit bottles. This should be followed up with Berlinger.
- The IO Team observed a number of mistakes in the completion of the Doping Control Forms by the DCOs, although most were minor mistakes. However in three cases the mistakes could have been relevant during the Results Management process should an Adverse Analytical Finding been reported.
- The PASO MC decided to accept samples with a Specific Gravity of 1.004 or higher (measured with a refractometer). The IO Team was informed that it was set at 1.004 in order to reduce the number of dilute samples. There appears to be no scientific reasoning for setting the value at 1.004. In fact, the IO Chair observed one Sample at the laboratory where the staff indicated that the difference between the SG values of the sample (1.004) and the generally accepted minimum level throughout the world (1.005) was significant enough to cause difficulties in the analysis. In addition, no pH was measured. While this is not in contradiction to the International Standards or the PASO Rules, the IO Team does not feel that it is best practice.
- During the review of the Doping Control Forms, the IO Team observed two forms for tests conducted on the same Modern Pentathlon athlete. For one of the tests, the sample did not meet the Specific Gravity requirements. Instead of collecting a second sample at that time, the DCO dismissed the athlete from Doping Control and they decided to collect a follow-up sample early the next morning. This is not in accordance with the PASO rules. During the PASO MC meeting, it was explained to the IO Chair that this Athlete was tested In Competition on July 23rd and provided two dilute samples. The PASO MC attempted to collect a follow-up sample on the morning of July 24th but could not locate the athlete. Therefore, they collected the follow-up sample in the evening of July 24th. This sample was also diluted and the DCO, with the approval of the PASO MC, decided not to collect the 2nd sample at that time; and instead they conducted another follow-up test the next morning. The IO Team understands the circumstances around the test; however, this decision to not collect a 2nd sample is not in accordance with the PASO rules or the International Standard for Testing.
- The Partial Sample procedure that was observed during the Games was not in accordance with the International Standard for Testing (IST). On most occasions the DCOs asked the athlete to pour the first partial sample into the collection vessel of the additional sample provided and mix the two samples together. However, in the IST it states that "...additional samples are added sequentially to the first sample collected until the required volume is met".
- Other observations that occurred frequently in the field but were in contradiction to the PASO Rules:

- Athletes were not always asked to wash their hands prior to the sample collection session;
- The DCOs very rarely confirmed that the A and B bottles were properly sealed;
- The Accreditation Cards were not always collected by the Chaperones upon notification and kept until the end the Athlete completed the process.
- The representatives of two minor athletes requested that they be allowed to accompany the Chaperone and athlete into the laboratory to observe the witnessing of the provision of the sample. The DCO did not permit this, although it is permitted in the PASO rules and in the International Standard for Testing.
- In three tests observed, EPO analysis was required but only 100mls of urine (in two cases) and 75mls (in the third case) was accepted. This is not in conformity with the PASO rules and may have created problems during the analytical procedures at the laboratory.

Post Collection Administration

The following issues were observed and reported by the IO Team regarding the Post Collection Administration procedures during the Games:

- At some sample collection sessions, more than one secure transport bag was required for the transport of the samples to the laboratory. In these instances, only one Chain of Custody Form was used. It is generally recommended that there be a separate Chain of Custody Form for each transport bag used.
- The documentation from each sample collection session was separated on site and sent to the Polyclinic for distribution. No issues were observed here.
- All Doping Control Forms were entered daily into ADAMS by the PASO MC. This allowed for an up-to-date record of all doping controls conducted during the Games. The IO Team was able to print various reports from ADAMS in order to monitor the doping control activities of the Games and found this approach very helpful. While there were some data entry errors with the information entered into ADAMS, the overall advantage of using ADAMS for record management during a Major Games was clearly evident.

Transport and Receipt of Samples

PASO decided to arrange the transport of the samples to the laboratory in two different ways: (1) if it was not too late in the evening, the DC Staff would take the samples directly from the venue to the laboratory. If there was more than one sport occurring at a venue, each Doping Control Station would store the samples in one central location at the venue and all of the samples would be taken to the laboratory at the same time; and (2) if it was too late in the evening, the samples were taken to the Polyclinic in the Athlete Village where they were stored overnight and transported to the laboratory the next morning. This generally worked well, as the Chain of Custody of the samples was maintained at all times and the samples were delivered to the laboratory in a timely manner. However, changes to this plan were not clearly communicated to the laboratory and therefore their staffing and analytical plans did not always match the delivery plan for the samples. This was rectified immediately by the PASO MC after the observation was reported by the IO Team.

The laboratory personnel confirmed the samples being delivered and signed off receipt on the samples.

Therapeutic Use Exemptions

A Therapeutic Use Exemption Committee (TUEC) was established to review all TUE applications received during the Pan American Games. This Committee was made up of three Brazilian doctors with expertise in Sports Medicine and was assisted by Dr. Adrian Lorde, a member of the PASO MC. Dr. Ken Fitch, who has a great deal of experience with TUEs, was also invited to assist the TUEC during the Games.

According to the PASO rules, all TUE applications should have been submitted prior to June 21st, 2007. However, to the knowledge of the IO Team very few, if any, TUE applications were received before this date. This resulted in the TUEC having to deal with a large number of applications once the teams arrived in Rio and the Games began. Given the experience of the NOCs within the region in regards to TUEs, this deadline may have been unrealistic and the IO Team accepts the decision of the PASO MC to be flexible in this area.

The PASO MC wanted all NOC Team Physicians to input the TUE applications into ADAMS instead of submitting it in paper form. While this was an ambitious goal, very few TUE applications were actually submitted through ADAMS. The IO Team believes that ADAMS could be a very useful tool for a Major Games Organizer in the management of TUEs. However, at the Pan Am Games there appeared to be a lack of a detailed plan to facilitate this. Very few, if any, of the Team Physicians received ADAMS training prior to the Games, and therefore did not know how to use it. PASO and WADA attempted to conduct training sessions, both prior to the Games and during the Games, but very few countries attended either session. More incentive or education may need to be given to the NOC Team Physicians to ensure they attend the training sessions and agree to use the ADAMS system for TUE applications.

The IO Team was present in the formal meetings of the TUEC and concluded that the majority of the decisions made by the Committee were in compliance with the International Standard for TUEs and the PASO Rules. However there were a few issues:

- In most cases there was a significant amount of time between the receipt of TUE applications and their approval/rejection. There appeared to be a lack of urgency by the TUEC in the review of the applications, despite the fact that the athletes were competing in a Major Games. There was a strong possibility of athletes competing at the Games while their TUE applications were waiting to be reviewed. Given the fact that most of the applications were received after the teams arrived in Brazil, it would have been more effective if the TUEC met regularly at the beginning of the Games, instead of waiting for a few days after the start of the Games to have their first official meeting. Fortunately there were no instances where the laboratory reported an Adverse Analytical Finding for an athlete whose TUE application was pending.
- The PASO rules required a recent lung function test or bronchoprovocation test for TUE applications for Beta-2 agonists. Many of the lung function tests provided were deemed "normal" yet the TUEC approved the TUE applications. There could be many justified reasons for this (i.e. the Athlete may continue to take their medication while undergoing the test) and the TUEC took these reasons into account when making the decisions. In these cases, the ADO may

want to request further information and ask the athlete to stop taking their medication for a couple of days in order to redo the test; however in a Major Games situation such as the Pan Am Games, this is not possible.

- The lack of an Agreement with the International Federations regarding TUEs became a problem when one International Federation informed PASO that they would not recognize the TUEs granted by the PASO TUEC. In addition to being very time consuming for the PASO MC to resolve, this could have created problems if an athlete from that sport tested positive for a prohibited substance which was approved for use by the PASO TUEC but was not recognized by the International Federation.
- One case that continues to concern the IO Team relates to the decision of the PASO MC to approve, retroactively, a TUE for Terbutaline. This was done after the end of the Pan American Games, when the laboratory reported an Adverse Analytical Finding for the substance. The day after the Closing Ceremonies, the PASO MC held a Results Management hearing where the Athlete was given an opportunity to present their case. It was determined that the Athlete had visited the Polyclinic in the Village with respiratory symptoms and received a prescription for an oral preparation containing Terbutaline. The Physician that prescribed the medication did not complete a TUE application because the substance was listed in the PASO Pharmacy Guide as 'Permitted' (page 44). Due to this error, the PASO MC decided to grant a retroactive TUE to this Athlete and void the Adverse Analytical Finding. Although we understand the exceptional circumstances related to this case, we do not believe that this was done in accordance with the International Standard for TUEs or the PASO Rules. The IO Team did not receive any official minutes related to this hearing. (Note: The IO Team observed other errors in the Pharmacy Guide related to prohibited and permitted substances. This is concerning as this Guide was being used by all of the Physicians in the Polyclinic to treat athletes).

Laboratory – Sample Analysis

The sample analysis during the Pan Am Games was conducted by the WADA-accredited laboratory in Rio de Janeiro, Brazil. The laboratory was located a few kilometres away from most of the competition venues, thus ensuring the timely delivery of the samples collected. For the Games, the laboratory contracted a large number of experts, both local and international to assist with the sample analysis, and invested in a number of new instruments to increment the quality of the analytical procedures (EPO detection and IRMS analysis) and the reporting time of the laboratory. It was expected that this would assist with the timely delivery of results. However, during the course of the Games, and in particular during the first week of the Games, the IO Team observed a delay in the reporting time of results. The laboratory indicated that this was mainly due to the significant differences in the Test Distribution Plan (TDP) initially agreed with the PASO MC and the actual arrival of the samples to the laboratory. For example, there were some days where the laboratory received double the amount of samples that was indicated on the TDP. The IO Team observed some additional factors that contributed to the delay in reporting of results:

- The lack of coordination between the laboratory staffing hours and the delivery schedule of the samples. The laboratory scheduled the majority of their staff to work throughout the night, but a number of samples that were collected late in

the evening were not delivered until the next morning. This was reported by the IO Team and was rectified by PASO MC and the laboratory. A significant improvement was evident in the second half of the Games.

- The laboratory experienced initial problems with the functioning of some of their equipment.
- The laboratory was waiting for the arrival of the international experts in order to optimize the performance of the analytical procedures for IRMS and EPO. Therefore, the results for a large number of samples requiring IRMS and/or EPO analysis were delayed at least one week in order to accommodate the arrival of these experts.

All analytical reports were inputted and received through ADAMS. This was a very efficient way to record results, and although there were some minor problems observed, the IO Team recognizes the benefit to the laboratories and the Major Games Organizers in using the ADAMS system.

There were a few issues regarding the laboratory observed by the IO Team that caused concern and were not in accordance with the requirements under the International Standards for Laboratories:

- The laboratory facilities were very limited to perform the analysis of so many samples during the Games. The IO Team observed the reception of the samples and the pre-analytical procedures in the laboratory during a busy hour at the beginning of one evening. The technicians performed their tasks in an efficient way but the reception room was so small that it was very difficult to perform the work; and thus very easy to make mistakes. The EPO and Hormones detection was performed in a separate facility on another floor, resulting in a time consuming process in order to assure the chain of custody of the aliquots to that facility.
- On two occasions the IO Team requested a copy of the corrective and preventive actions records for two non-conformities that were observed during the reception of samples. To date, the IO Team has not received these corrective action reports.
- The laboratory, through ADAMS, reported samples with a T/E ratio higher than four during the initial screening procedures but with a negative IRMS result as "Negative". This was done without performing the confirmation of the T/E ratio and is in contradiction with the International Standard for Laboratories. The laboratories are required to report any T/E ratio higher than 4 as an Adverse Analytical Finding and it is up to the Anti-Doping Organization to determine whether it is an Anti-Doping Rule Violation or not. To date, all samples are still reported as negative in ADAMS and therefore the IO Team, PASO, the International Federation or WADA are not aware of which samples had an elevated T/E ratio and require follow up.
- The laboratory made a comment on an analytical report in ADAMS related to the presence of traces of an endogenous hormone which was not understandable. The laboratory revised the report in ADAMS after the observation was reported by the IO Team but did not inform the PASO MC about this corrective action.

Results Management

The PASO MC outlined in its Rules how the Results Management Process would be conducted. In addition, the PASO MC invited Mr. Richard Young, a lawyer with several years experience in anti-doping, to advise on all cases.

During the period of the Games, no Results Management Hearings were scheduled. A day after the Closing Ceremony, one hearing was held (see details in TUE section of this report). The one hearing observed was conducted in accordance with the World Anti-Doping Code and the PASO Rules, although the final outcome is still in question as the IO Team has not received any official documentation of the final decision.

Additional Adverse Analytical Findings have since been reported by the Laboratory and the IO Team will continue to monitor the process in place for these hearings.

Other Issues

There was one issue that arose at the start of the Games that concerned the IO Team but we are pleased to report that the PASO MC dealt with it immediately. This specific issue was a result of a review of the doping control forms, when the IO Team observed a potential conflict of interest during an out of competition test. An athlete was selected for an OOC, and the witness who observed the passing of the sample was also known to be the team physician for that Athlete's National Federation. This was brought to the attention of the PASO MC who decided further investigation was needed. In the short term, PASO MC decided that at any further events for this sport, this particular DCO would not be assigned to work. However, the issue was not completely resolved before the end of the Games and the IO Team will continue to observe any outcomes of the investigation.

During the meeting between the PASO MC and the NOC Team Physicians on the eve of the Opening Ceremony, one Team Physician asked if there was going to be blood testing at the Games. The PASO MC replied by saying there would be no blood testing during the Games. The IO Team would recommend that this information not be stated publicly and that the teams and athletes should believe that blood testing may take place during any Major Games.

The PASO MC decided to perform Blood Screening in Athletics following a request from the International Association of Athletics Federations (IAAF). This testing was not directly linked with Doping Control but created some confusion amongst the athletes as they were informed after their In Competition urine test that they must go to another room for a Blood Control. Instead they may have wanted to inform the athletes that they were going to undergo a blood collection for screening purposes requested by the IAAF, not related to the Games Doping Control. The PASO MC recognized this issue and decided to suspend this blood collection after consultation with their legal expert.

On July 18th the Maintenance Staff at the Athlete Village found a package near the night club that contained medications for both humans and horses. Only one of the substances, "Actovegin", is not permitted as a "Prohibitive Method" (i.e. by infusion). The PASO MC delivered the package to the local police for further investigation. No further information has been provided on this situation.

There appeared to be a lack of anti-doping education material available to the athletes or teams, both prior to the Games or at the Doping Control Stations. If

Games specific materials were not available, the PASO MC may have considered using WADA's existing materials such as DVDs, brochures, athlete guides and posters. This could have been a great opportunity to promote the drug free sport message.

Recommendations

Based on the observations made during the XV Pan American Games the IO Team would like to make the following recommendations for future Games:

1. The PASO MC should consider signing agreements with each International Federation prior to the Games, where the requirements for testing and TUEs would be clearly outlined. This may help avoid any confusion or misunderstandings throughout the Games.
2. The IO Team strongly recommends the PASO MC perform blood controls at the next Pan American Games, even in a limited amount.
3. Improved communication between the laboratory and the Organizers regarding any changes that are made to the Test Distribution Plan during the Games. This will assist the laboratory in determining its staffing and analytical schedules and help prevent delays in the reporting of results.
4. The laboratory should conclude the validation of all analytical procedures and methods, including the training of its staff, at least one month prior to the start of the Games.
5. The laboratory and the PASO MC should take into consideration the world-wide practice and scientific reasoning when determining the acceptable minimum measurement for Specific Gravity. The IO Team also recommends that the PASO MC follow the common world-wide practice of 1.005 for SG, instead of arbitrarily setting the level at 1.004. In addition, the IO Team recommends that the pH level is also measured, as this was not done at these Games.
6. The IO Team strongly believes that ADAMS is a very useful tool for the management of doping control programs, including those during a Major Games. For future Games, the IO Team recommends that the Event Organizer and WADA develop a more detailed implementation plan, including adequate training and information for those who will be using it. This will ensure proper use of the system and all parties involved will receive the maximum benefit from the ADAMS system.
7. More education and understanding by athletes and teams is needed regarding Therapeutic Use Exemptions. Although a deadline of June 21st was set, very few TUEs were submitted before the deadline. In addition, a plan by the PASO TUE Committee to meet more regularly, in particular at the beginning of the Games, would ensure that all TUEs are reviewed and approved/rejected in a timely manner.
8. More understanding on Elevated T/E ratios (i.e. above 4) is required for everyone. The fact that the samples with an elevated T/E ratio were reported as Negative is a big concern to the IO Team.
9. The PASO MC should ensure that test events occur in the city that is hosting the next Pan American Games in order to provide experience to all Doping Control Personnel. For the most part, the Doping Control was conducted very well during the Games. However, it was evident that the Doping Control Personnel were uncomfortable in certain situations and this may have been alleviated by some actual field experience in anti-doping.
10. Further thought should go into the development of the doping control documentation. The IO strongly recommends the development of a Doping

- Control Officer Report, a Supplementary Report Form and a carbon-copy Chain of Custody Form.
11. The PASO MC should take more seriously all Athlete comments recorded on the Doping Control Form, and may want to consider developing a procedure to respond to each comment when appropriate.
 12. The PASO MC must ensure the Medical Guide and Pharmacy Guide available at the Polyclinic is 100% accurate. Physicians are using these Guides to treat athletes competing at the Games and must be sure what substances are permitted/prohibited.
 13. The PASO MC should include an anti-doping educational campaign for future Games. This would include the distribution of educational information to the teams and athletes prior to the start of the Games; and also the provision of information at the Athlete Village and in the Doping Control Stations.
 14. We recommend that the PASO MC work with the Brazilian authorities to ensure a Games legacy when it comes to anti-doping and encourage them to develop a National Anti-Doping Program in the country. The Pan Am Games has provided the country with some very qualified, and now experienced, doping control personnel throughout the country and we encourage Brazil to take advantage of this opportunity to use these existing resources to develop their own National Program.
 15. The PASO MC and the Local Games Organizing Committee should consider establishing more formal cooperative relationships with the various government and law enforcement agencies that can assist in the investigation of other anti-doping rule violations (i.e. local customs, airport security, police).
 16. The PASO MC should implement a formal corrective action procedure to address non-conformities in future Games. This will ensure that all issues are recorded and the appropriate corrective action can be implemented.

Conclusion

Although this report outlines the issues/concerns observed during the XV Pan American Games, the IO Team would like to emphasize that the Doping Control Program implemented by the PASO Medical Commission was very well done. Overall, the Program was conducted in accordance with the PASO Rules and met the standards required under the World Anti-Doping Code. The IO Team hopes that our report will assist the PASO MC in continuing the development of its anti-doping programs at future Games and believes that the Program implemented in Rio is a tremendous step forward in the fight against doping in the region.