WORLD ANTI-DOPING AGENCY

INDEPENDENT OBSERVER REPORT

TOUR DE FRANCE 2003

TABLE OF CONTENTS

1. INTRODUCTION 4

2. INITIAL PREPARATIONS AND MEETINGS 4

3. MEDICAL CHECK-UP 6

A. BLOOD TESTS 6

B. MEDICAL EXAMINATION 9

4. OUT-OF-COMPETITION TESTING BEFORE THE START 10

5. IN-COMPETITION TESTING 11

A. SELECTION PROCESS 13

B. NOTIFICATION 13

C. ESCORTS 14

D. TESTING AREA 14

E. PROCEDURES FOR TAKING SAMPLES 14

F. TRANSPORT 16

6. OUT-OF-COMPETITION TESTING DURING THE TOUR 19

7. LABORATORY 20

8. HANDLING THE RESULTS 27

A. WHILE THE OBSERVERS WERE PRESENT 27

B. AFTER THE OBSERVERS' DEPARTURE 27

9. INFORMING AND EDUCATING ATHLETES 30

10. UCI MEDICAL COMMISSION 31

11. MISCELLANEOUS 32

12. CONCLUSIONS 32

13. ACKNOWLEDGEMENTS 34

14. MEMBERS OF THE INDEPENDENT OBSERVERS TEAM 34

15. APPENDICES 36

APPENDIX 1: PROCEDURE FOR DETERMINING BLOOD PARAMETERS (UCI) 36
APPENDIX 2: MEASUREMENT PROTOCOL (UCI) 38
APPENDIX 3: INFORMATION FOR RIDERS (UCI) 39
APPENDIX 4: REQUEST FOR INFORMATION 04/08/03 40
APPENDIX 5: UCI REPLY (07/08/03) 41
APPENDIX 6: UCI REPLY (06/08/03) 42
APPENDIX 7: FAX TO THE CPLD (18/08/03) 43
APPENDIX 8: REPLY FROM THE CPLD (18/08/03) 44
APPENDIX 9: ASO INFORMATION LEAFLET FOR RIDERS 45
APPENDIX 10: TOUR DE FRANCE CODE OF ETHICS 47

1. INTRODUCTION

This report is submitted by the team of Independent Observers (IO) from the World Anti-Doping Agency (WADA), which was present at the Tour de France 2003. The IO team was able to observe the anti-doping programme implemented by the various organisations working in cooperation during the Tour: The International Cycling Union (UCI), the French Ministry of Sport, the Amaury Sport Organisation (ASO), the French Council for the Prevention and Fight against Doping (CPLD) and the French National Drug Testing Laboratory (LNDD).

The team appointed by WADA to carry out this task comprised 3 members, all regarded as experts in their particular fields.

2. INITIAL PREPARATIONS AND MEETINGS

In the run up to the 2003 Tour, WADA circulated an agreement among the relevant parties in order to confirm that, in accordance with the mandate of the IO programme, the observers would have access to all the relevant documentation and would be able to observe the anti-doping control process implemented for the Tour de France at its various levels. In spite of a few initial problems associated with the legal constraints specific to the Code of Public Health in France hosting the Tour, it was possible to reach an agreement authorizing the WADA team to observe the following procedures:

- selection procedures;
- notification of the cyclists selected for the controls;
- analysis of samples at the LNDD;
- preparation of the controls;
- compiling of the appropriate forms after the controls;
- preparing the sample for dispatch to the laboratory;
- procedures in the event of a “B” sample.

In addition to this, the observers were able to enter the doping control station, provided that they were medical doctors and there was adequate room to accommodate the cyclist, the doctor taking the sample, the UCI delegate and possibly the accompanying person of the cyclist.

An anonymous copy of the doping control forms, as well as a copy of the analysis reports were also supplied to the observers.

Before the observers arrived in Paris, arrangements were made for several meetings to be held in order to ensure, on the one hand, that just as events were starting off, all the parties concerned would be informed of each other's role in the process, while also ensuring that there would be no problems from an organisational point of view.

Two important meetings were held during the first two days, on 1st and 2nd July, in Paris. During the first meeting between a representative from WADA and M. D. Baal, Deputy Director of the Tour, the entire logistics for the event, including accommodation, transportation, etc. were reviewed and coordinated. A car and driver were made available to the observers from the time they arrived in Paris.

A second meeting took place between representatives from the French Ministry of Sport, CPLD, UCI, ASO, LNDD and the WADA observers, which focused on this first contact being made and on explaining the WADA observers' mission, their objectives and role during a sporting event. All the steps involved in the anti-doping test process implemented during the Tour were described in detail and explained. Furthermore, an agreement was reached on guaranteeing anonymity with regard to the copies of reports sent to the observers.

It is important to note that during the meeting the CPLD expressed its opinion about the exchange of information with the observers relating to the doping control forms. It did not agree with the compromise offered by the French Ministry of Sport and consequently, the CPLD stated that it declined all responsibility in the event of any dispute.

During the meeting the President of the IO team emphasised that this type of mission is carried out based on a positive, constructive approach. These objectives can only be achieved with the cooperation of all the present parties based on a system of ongoing communication to help avoid any problems during the mission.

During this meeting, the President also gave all the relevant authorities copies of the documents guaranteeing confidentiality with regard to the information gathered as part of the mission and to the commitment to expose any personal conflict of interest.

On the evening of 4th July, the WADA observers were invited to attend the general reception for the teams being held at Paris City Hall. Race officials not only made the most of this occasion to inform the teams about the Tour de France's Code of Ethics, along with its regulations on behaviour and safety, but they also made the cyclists and their backup teams aware of the issue of doping[1]. The anti-doping testing process was quickly explained and an appeal was made to the cyclists for maintaining the spirit of fair play.

RECOMMENDATIONS

It is essential that in future, agreements between the various parties are reached and signed well beforehand in order to guarantee the best possible organisation for all the parties concerned. The agreement was sent to the relevant parties on 16th May 2003 and it was only on 27th June, virtually just before the observers were due to arrive that agreement was successfully reached.

3. MEDICAL CHECK-UP

Before the start, all the cyclists underwent a medical check-up, including a blood test and a medical examination.

a. BLOOD TESTS

All 198 riders officially registered for the 2003 Tour de France underwent a blood test the day before the start of the race.

The samples were taken at the hotels where the teams were staying from 7.30 AM onwards. These tests were carried out under the responsibility of the UCI, which appointed several teams made up of a doctor to take the sample and two UCI commissioners.

[1] See pages 30-31 of this report for more details

Three samples were taken from each rider: an A sample and a B sample for evaluating the levels of haematocrit, haemoglobin and the percentage of reticulocytes and free plasma haemoglobin; a third sample for evaluating other biological parameters (transaminases, glucose, iron, trasferrin, ferritin, cortisol, etc.).

The IO team members observed the procedures for taking the blood samples, compiling the forms and transporting the samples to a temporary laboratory located in a hotel. There were two different teams working in the laboratory. One was from the Lausanne Laboratory and the other from the Ghent Laboratory. Each team was made up of a Scientific Director and a Technician. The Swiss team used a Sysmex ® analyzer, while the Belgian team used a Coulteur ACT 8 ®. The laboratory was also equipped with a centrifuge and a Hemocue® analyzer for measuring free plasma haemoglobin. This is the first occasion where the UCI has not only evaluated the usual parameters (haematocrit, haemoglobin and the percentage of reticulocytes), but also free plasma haemoglobin, which rises quite significantly when synthetic haemoglobin is administered.

When the analyses, which were carried out immediately as soon as the samples arrived, showed abnormal profiles (abnormal values or trends), the UCI questioned the rider (or his doctor) about the source of this abnormality, or let him know that he would have another test carried out during the race and that he would be classified as being suspect by the UCI Anti-doping Commission.

The UCI authorised the observers to attend all the health check procedures, but not when the results were being issued. The reason behind that being that the health checks were not part of the anti-doping process. Nevertheless, the observers do not share this view because on several occasions during the Tour, the UCI carried out tests in competition and out of competition based on suspect results from blood tests taken as part of the health checks.

This strategy paid off with a out-of-competition control during the Tour, which showed a positive result for erythropoietin (EPO).

Since this year, the UCI has been using a new protocol for identifying riders with an abnormal blood profile. If, for instance, a rider has a haematocrit value of 48% (below 50%), but if the average value of the four previous samples taken was 43%, the Anti-doping Commission will automatically make this rider provide a urine sample to be screened for EPO.

The two doctors included in the IO team were able to view the UCI's blood parameters database and listen to the explanations from Mario Zorzoli, the UCI doctor, about the strategy linked to the health checks.

Appendices I and II describe the procedure for the medical examination carried out to determine blood parameters and the protocol for measuring free plasma haemoglobin. Appendix III contains the letter sent to all the riders before the race containing some information about the blood tests.

The third blood sample was dispatched in refrigerated form to a laboratory in Switzerland for an evaluation of the other parameters, which would be passed on to the UCI doctors at a later stage.

All the technical and administrative procedures were carried out quickly, in a highly professional manner and with the excellent cooperation of all the riders.

During the health checks the commissioners requested health booklets from all the riders for them to photocopy. During the technical meeting on 4th July the UCI Medical Commission returned the health booklets and informed the team representatives of the results from the health checks.
One member of the IO team was also present at the health checks carried out on 9th July, where all the riders in the six teams were examined.

During the Tour the UCI carried out other health checks after the observers' departure, where all the riders with suspect results had to undergo a out-of-competition control or a control on the same day at the end of the stage in order to screen for erythropoietin.

The day before the first health check, the UCI held a meeting attended by the doctors involved in taking the samples and the laboratory managers to explain to them their duties and responsibilities and to issue the relevant documentation and equipment to them.

The observers would like to congratulate the UCI for implementing this strategy involving health checks, which is still at the moment and was in the past a very important measure for protecting the riders' health. The introduction of testing for abnormal biological profiles and the evaluation of free plasma haemoglobin demonstrate that the UCI strives to improve its health check procedures.

Based on the analysis of the individual assessments, it is possible to divide the riders into three categories:

- Those who will be banned from starting due to a haematocrit level above 50% and a haemoglobin level higher than 17 g/dl;
- Those with no biological abnormalities;
- Those who will be authorised to start but, due to a biological profile regarded as "suspect", will have to be included in the group of riders obliged to take a urine test to be screened for EPO at the end of the prologue.

RECOMMENDATIONS

- *During any future WADA observation mission, the UCI should supply the results from the health checks to the WADA team to prove the system's effectiveness (total, indisputable transparency).*
- *The UCI should provide a copy of the completed form with the sample codes for each rider.*
- *Samples should be transported in refrigerated form in a sealed case, along with an appropriately completed security document.*

b. MEDICAL EXAMINATION

On 3rd and 4th July all the riders underwent a medical examination organised by the medical team employed by the ASO led by Dr. Gérard Porte.
The medical team's aim was to make an initial contact with all the riders. It comprised six doctors and two nurses.

A medical record was completed for each cyclist, who underwent several observations and examinations: weight, height, spirometry, cardiopulmonary auscultation, blood pressure and ECG.

The technical procedure used for measuring weight and height was not appropriate, nor were the conditions ideal for cardiopulmonary auscultation (the rooms in the large hall of the Palais des Expositions did not have integrated ceilings and there was background noise. The cars following the Tour were also located nearby). The cyclists' privacy was not respected either. For instance, the ECGs were carried out in a large room with four beds and no curtains separating them from the ever-present media.

It is vital and necessary for contact to be made between the medical team in charge during the Tour de France and the cyclists and their doctors, but some basic principles of medical practice need to be observed.

RECOMMENDATIONS

- *The cyclists' privacy should be respected.*
- *Examinations and, in particular, recording the cyclists' medical history should be carried out in an atmosphere of peace and quiet in order to obtain as much information as possible from the cyclists.*
- *The procedures for measuring weight and height should comply with normal technical procedures.*
- *It is vital that the cyclist's medical record is supplied and that the team doctor is interviewed.*
- *Closer cooperation with the UCI medical team and the issuing the results of the blood analyses carried out in Switzerland will definitely benefit this large medical structure put in place for the Tour de France.*

4. OUT-OF-COMPETITION TESTING BEFORE THE START

The day before the start, the UCI decided to control at random two cyclists who had "suspect" biological profiles.

On the morning of the prologue another cyclist was also tested. The three riders' urine samples were screened for erythropoietin.

The IO team was present at one of the tests carried out by a team made up of the Anti-doping Inspector and a doctor from the UCI. The test was carried out in accordance with the technical and administrative procedures set out by the UCI's Anti-doping regulations.
The three samples were transported to the laboratory along with the samples taken after the prologue, which was 34 hours after the first out-of-competition sample was taken.

The observers did not see the conditions for storing and ensuring the security of these three samples taken during a random test between the time they were taken and their arrival at the venue for the anti-doping test during the prologue.

The observers agree with the UCI's strategy of testing at random cyclists with "suspect" results from the health checks.

RECOMMENDATIONS

The observers recommend that the samples are transported immediately to the laboratory after being taken and not 34 hours afterwards.

5. IN-COMPETITION TESTING

The French Ministry of Sport, the UCI and ASO shared responsibility for in-competition testing. The Ministry of Sport appointed a doctor responsible for all the samples taken.
The selection of the athletes took place every day one hour before the finish in the UCI Anti-doping Inspector's car in the presence and with the cooperation of the doctor appointed by the Ministry of Sport.
In accordance with UCI Anti-doping regulations, at each stage, the wearer of the yellow jersey and the stage winner were automatically selected to take an anti-doping test. During several stages the Anti-doping Inspector received a message from the President of the UCI Anti-doping Commission instructing him to select directly a few riders with "suspect" profiles from the blood tests.

Usually three other riders were then selected randomly to give a total of six or seven riders to be tested and two reserve riders. Half an hour before the finish, the anti-doping inspector would give the President of the board of commissioners the jersey numbers of the riders selected for testing, as well as those of the reserve riders. This information would then be passed on by the President via the Tour radio (accessible to Tour officials) twenty minutes before the finish. The names and numbers of the riders were then displayed at the entrance to the anti-doping control station.

During the time-trial stages lots would be drawn before the first rider set off and notice would be given by a UCI commissioner five minutes before each selected rider set off.
After the finish the rider had an hour to report to the doping control station without ever being accompanied.

The Ministry of Sport doctor took the urine samples in two caravans made available by the ASO, one of which was used as a waiting room. The doping control station was at least 50 metres from the finish line and the press rooms. It was surrounded by barriers with a door opening onto the course. There was always a security guard from the organisation at the door.
The Berlinger ® system was used to take the samples and the forms from the Ministry of Sport were used as report templates.

Once all the tests were carried out, the doctor taking the samples and the Medical Inspector would put all the in-competition samples and the out-of-competition samples from the same day in a case containing dry ice required for transporting the samples at minus 20 degrees Centigrade.

The case was immediately brought to the heliport or airport where a helicopter or plane chartered by the organisation was waiting each evening to take the case and the samples to Bourget airport in Paris where they were handled by a private carrier. This carrier brought the samples between 0900 and 1000 the following day to the Châtenay-Malabry anti-doping laboratory.

The IO team observed the system for selecting the riders, the notification system, the procedures for taking the samples and the team also monitored the riders after the finish until they reported to the testing area during the prologue and the first four stages. The observers also monitored the case containing the samples from the doping control station right to the premises of the company assigned with their transportation during the day of the prologue. At the end of anti-doping testing after the third stage, the observers monitored how the case was brought to the heliport.

During the Tour, 132 urine samples were taken in-competition (6 samples for fifteen stages and 7 samples for 6 stages).

Most of the procedures followed during the in-competition tests complied with the UCI Anti-doping regulations and/or WADA International Standard for Testing. However, the observers identified a few discrepancies with regard either to the UCI Anti-doping regulations or the International Standard for Testing.

a. SELECTION PROCESS

When the riders were selected during the second stage, one of those selected by the President of the UCI Anti-doping Commission was not notified at the finish due to an error when noting the numbers of the riders selected. During the selction process at the third stage, the inspector had made a mistake noting the figures in the jersey number of the selected rider. Because of the confusion from the previous day when a rider was omitted, the latter was selected automatically for testing that day by the President of the UCI Anti-doping Commission.

b. NOTIFICATION

During the prologue the cyclists were notified five minutes before the start. This meant that the cyclists who were not notified then still had the opportunity to take a stimulant before the start of the race, as they were certain not to be tested (unless they won!). Of the six cyclists tested during the prologue only one reported for testing more than 60 minutes after notification, without any comment from the inspector. The Anti-doping Inspector informed some of the athletes and managers that they had 60 minutes to report for testing.

During the road-racing stages notification was given via the Tour-radio 20 minutes before the end of the race. This meant that the riders who were not selected again had an opportunity to take a fast-acting stimulant because they knew for certain they would not be tested (unless they won!).

c. ESCORTS

There were no escorts. The cyclists sometimes took over 20 minutes to get changed in their team trucks. Some kind of manipulation could have taken place.

d. TESTING AREA

There was no sign available to indicate where the anti-doping control station was. In addition, the testing area's location was not indicated in the route guide. The anti-doping caravan (waiting room and area where samples were taken) and the relevant doctor's car had a "Contrôle Médical" (Medical Test) sign rather than any mention of anti-doping.
In one instance, a cyclist and his doctor were meant to report for the anti-doping test, but could not find the venue due to the lack of signs.
The premises where the tests were carried out were far too small. There was also no system for recording when people came and left the area.

Every day there were unauthorised people in the anti-doping control and waiting areas, such as chauffeurs, mobile-home drivers and sometimes even members of the media.

With a UCI doctor's authorisation, a television crew was able to enter the restricted area and film the dopipng control station with only a WADA observer present. Afterwards, the TV crew remained in the restricted area around the caravan and filmed cyclists leaving the testing area, as well as the inside of the testing and waiting areas when a cyclist was there. Finally, the TV crew filmed a close-up of the procedure for filling and closing the dry ice container.

e. PROCEDURES FOR TAKING SAMPLES

Cyclists did not receive at any time an explanation of what the anti-doping test procedures involved.

Often the doctor taking the sample carried out himself the process for filling the samples without requesting the cyclist's authorisation or recording this action on the test form. Given the numerous (7) copies of the report which had to be made, the last copy, intended for the laboratory, was on several occasions virtually illegible.

The cyclist’s privacy was not respected during micturition. This was carried out with the Anti-doping Inspector present, while the small bathroom was used to store the equipment and samples after they had been taken.

On at least one occasion, the doctor taking the sample left the caravan when the cyclist was trying to urinate. The Anti-doping Inspector was not able to observe the cyclist from where he was, although this was not part of his function.

The doctor taking the samples never measured their density and pH.
According to the doctor taking the samples, pH and density are not measured because of a directive from the LNDD (French National Drug Testing Laboratory) issued two years ago stating that this measure was not necessary.
The Independent Observers, however, questioned the Ministry of Sport on this matter, which informed them that neither UCI regulations nor French law made this measure compulsory, even if there was a relevant box for this purpose on the form and that it was stipulated by the Olympic Movement Anti-doping Code.

Whenever there was a sample containing an insufficient quantity of urine the doctor taking the samples never used the Berlinger® system intended for this purpose (with blue caps). A cyclist held his open sample in his hand, at one moment he was even left all alone in the doping control station. Despite this, the doping control form provides a section for indicating the number of the intermediate seals, which was therefore never used.

The doctor taking the samples always observed the 75 ml limit. Sometimes, when analysing EPO, a larger quantity of urine is required. To obtain this it would have been preferable to pour more urine into the bottles even if there was already a sufficient quantity of urine.

On several occasions the doctor took more than 75 ml urine, the quantity taken was noted in the report. He then filled bottle A and bottle B up to the label and the rest of the urine was poured down the toilet.

The doctor taking the samples noted all the drugs featuring in the rider's health booklet on the form and asked him to state all the drugs he had recently taken. He did not ask him to state the nutritional supplements he had taken. The doctor often did not ask the rider if he had any comments to make about the procedure.
After a cyclist was tested the samples were not kept in a safe, refrigerated place. The Berlinger® set with the sample was placed on the ground in the small bathroom in the caravan, which was not used for micturition.

During the prologue controls, the three samples from the random control taken in the morning were kept refrigerated in the carry case, which was not sealed and was located outside the caravan near the entrance.

In one case, the cyclist's copy of the doping control form was detached before the Cycling Director could sign the form. He signed it afterwards but the cyclist's copy did not have his signature on it. The various copies were put in envelopes and sent by normal post to the relevant authorities. The copies were therefore not kept in sealed envelopes.

Once the in-competition tests were complete, the container of dry ice was emptied in the street in full public view, with the samples placed on the ground nearby.
Then all the samples were placed in the container again and the driver of the doctors' car put the dry ice back in the container using plastic bags to protect his hands.

The actual container was not sealed. The unsealed envelope containing the copies of the laboratory reports and the sample security form were placed under the lid of the container, which did not close properly. This envelope was therefore in full public view and easily accessible.

f. TRANSPORT

There was no transport form (security form for the case).

After the prologue, the doctor taking the samples and the Anti-doping Inspector took the container to their hotel. Immediately when they arrived, the container was given to an employee from Dynaposte® (who was not requested for proof of identity). This company did not supply the doctor taking the samples with a transport form. This meant that the doctor had no proof that the samples had actually been delivered. Dynaposte® transported the samples to a post office where they were kept in air-conditioned premises. The post office's security system consisted of an alarm and access code. Dynaposte® does not have a quality control system. The samples were scheduled to be dispatched to the laboratory at 9 AM the following morning.

RECOMMENDATIONS

The following measures are recommended by the IO team as a means of improving the anti-doping test procedures at the Tour de France:

- *The procedures for selecting the riders should be carried out in an atmosphere of peace and quiet to prevent any mistakes being made.*
- *UCI Anti-doping regulations should describe precisely when the riders should be notified during the time-trial and road-racing stages. The form described in the UCI Anti-doping regulations should only be used for notification after the finish, preferably in the mixed area or alternatively, beside the relevant team trucks.*

  The Observers believe that this system can be totally practicable, even during a major competition like the Tour de France.
- *Once notification has been given, an escort trained specially for this purpose should accompany the rider until he arrives at the anti-doping control station, as described in the UCI Anti-doping regulations (Article 53) and in accordance with Article 5.4 of the International Standard for Testing.*
- *The time the rider has to report for testing specified in the UCI Anti-doping regulations (Article 54 – 30 minutes or 50 minutes, if he has to attend a press conference) should be observed.*
- *The testing area should be clearly signposted from the finish line (Article 38 of the UCI Anti-doping regulations).*

- *The testing area should comply with UCI recommendations (Article 39), especially with regard to its dimensions, guaranteeing riders' privacy during the test, as well as with Article 6.3 of the International Standard for Testing.*
- *The person appointed to guard the entrance to control station should have a system for recording who enters and leaves the area. The press, organisation drivers, mobile home drivers and other persons not involved in the anti-doping test process should not enter the testing area (Article 40 of the UCI Anti-doping regulations).*
- *The doctor taking the samples should explain the procedures to the riders, give them the opportunity to ask questions and take all the samples in a calm environment and in accordance with Article 47 of the UCI Anti-doping regulations and the procedures specified in WADA's International Standard for Testing (Article 7.0).*
- *The doctor taking the samples must ask riders which nutritional supplements they have taken, as this information could help with the interpretation of a positive analysis report and the decision on what kind of sanction to impose (Article 10.5 of WADA's World Anti-doping Code).*
- *The french doping control form should be amended so that there are fewer copies or that the copy to be sent to the Laboratory is the third or fourth sheet so that it is more legible. The IO team does not understand why one copy has to be supplied to the National Federation and a second to the International Federation.*

  If it is an international competition the copy should be given to the International Federation and if it is national it should be given to the National Federation. The IO team wonders why a copy has to be supplied to the French Ministry of Sport if the French Council for the Prevention and Fight against Doping already receives one.
- *The doctor taking the samples should pour all the urine collected into bottles A and B because it is sometimes the case that the laboratory needs a large amount of urine to be able to confirm a quantifiable substance or detect erythropoietin.*
- *The samples should be kept refrigerated in a secure place after they have been taken.*

- *The doctor taking the samples and the UCI Anti-doping Inspector should place the copies of the report in the envelopes intended for the various recipients after the last sample has been taken and close them using the security seals (Article 66 of the UCI anti-doping regulations).*
- *The doctor taking the samples should draft a report after each doping control session. A single report at the end of the Tour mission would not allow for corrective measures to be taken if there were irregularities in one of the controls during the actual Tour.*
- *The samples and envelope containing the reports to be sent to the laboratory should be placed in a case, which should be sealed by the doctor taking the samples and the Anti-doping Inspector.*
- *The doctor taking the samples or the Anti-doping Inspector should complete a security document for the case (in accordance with Article 9.3.2. of the International Standard for Testing), specifying the date and time at which the case was sealed and the security seal number. The integrity of each person who will carry the case should be guaranteed and a new entry must be made in the security document when the case is received.*
- *The Tour's organisation should choose a company with a quality assurance system to transport the case.*
- *The samples should be transported in a case refrigerated at a temperature between 0ºC and 10ºC while in transit.*

  Transporting the samples at -20ºC is secure but it slows down the procedures for preparing the samples in the laboratory as they have to wait until the samples have thawed once they have arrived.

6. OUT-OF-COMPETITION TESTING DURING THE TOUR

A total of seven out-of-competition controls were carried out during the Tour de France (one on 7th July, two on the first rest day, one on 18th July and three on the second rest day). The doctor from the Ministry of Sport taking the samples carried out the controls in cooperation with the UCI Medical Inspector.

The President of the UCI Anti-doping Commission decided on the riders to be selected and the laboratory screened all the samples taken for erythropoietin.

One of the WADA observers observed one of the controls carried out at 7 AM on 7th July. It was carried out at the rider's hotel. The only remarks to be made relate on one hand to the time the rider took to report for the control – 23 minutes – after being notified by one of the team managers without being accompanied by the UCI Medical Inspector and on the other hand to the system for transporting the samples. After taking the samples, the doctor carried them in a small bag.

RECOMMENDATIONS

- *The UCI and French Ministry of Sport should carry out more controls, especially to monitor riders with "suspect" blood profiles, instead of monitoring them by selecting these riders for in-competition controls. Post-competition proteinuria can make it more difficult to interpret the results from the procedure for detecting erythropoietin in the laboratory.*
- *The UCI Medical Inspector should accompany the team manager from the time of their meeting until the rider is notified.*
- *The samples should be transported and stored in a refrigerated case, closed with a security seal until the time it is finally transported to the laboratory.*

7. LABORATORY

The analyses of all the samples taken for anti-doping testing, in competition and out of competition during the Tour de France, were carried out by the French National Drug Testing Laboratory (LNDD) in Châtenay-Malabry.

The LNDD is a national public, administrative institute, which operates under the responsibility of the Ministry of Sport.

This laboratory carries out analyses under the terms of Article L.3632-2 of the French Public Health Code and is responsible for managing and sending the equipment required to take the samples, as specified in the article of the Decree of 11th January 2001 mentioned above. Another of the LNDD's tasks is to carry out research in the area of doping prevention.

The laboratory has evolved historically as part of the institutional framework represented by national and international sporting bodies (sports federations, International Olympic Committee and World Anti-Doping Agency) and administrative bodies in the form of the Ministry of Sport and more recently (1999) the Council for the Prevention and Fight against Doping (CLPD).

In view of this, the laboratory's activities meet the requirements of national regulations and those of the sporting bodies.

At the moment, the LNDD is the only establishment in France approved by the IOC and WADA for carrying out analyses of anti-doping controls. In order to maintain the quality level of the service provided, the remuneration of the staff involved in carrying out the analyses does not depend on the number of samples processed nor on the results of these analyses. The LNDD is situated in the Châtenay-Malabry centre for popular education and sport (CREPS). It is made up of three technical departments, a paratechnical department, a quality assurance department, as well as a general secretariat. It has a current capacity for processing around 9,000 samples annually, based on 800 (between 700 and 900) per month over 11 months, taking into account a period of one month to deliver the results from the time the samples are received at the laboratory.

The Laboratory's management team is made up of the Director of the Laboratory, Prof. Jacques de Ceaurriz and a General Secretary. The Director is the laboratory's technical manager.

The LNDD has a staff of 40 comprising:

- 1 Director
- 1 General Secretary
- 3 Heads of department
- 1 Quality Assurance manager
- 23 technicians and 3 para-technical staff

- 8 administrators.

The laboratory has three technical departments. The various heads of department are also the technical managers for their respective departments:

- Department of GC chemical testing. This testing department is responsible for carrying out conventional analyses using gas chromatography, with or without mass spectrometry.
- Department for analytical research and development and LC chemical testing. Its function is to develop new analytical methods for identifying new doping products, as well as to improve already existing ones.
- Department for biological research and development and immunochemical testing. Its function is to develop new biological analytical methods for identifying new doping products, as well as to improve already existing ones. This department is responsible for the technical procedures of erythropoietin screening.

The laboratory's quality control system has had general accreditation from COFRAC (French Committee for Accreditation) in Medical Biology (no. 1-1174) since 1st June 2001.

The LNDD currently has the following equipment:

11 units – GC/MS
3 units – GC/MS-MS
2 units – (LC/MS)
2 units – system for analysing luminescence with dark room and optical system
1 unit – (LC/MS-MS)

An observer from the IO team visited the LNDD on the morning of 10th July. The observer was very warmly welcomed by the Director and quality assurance manager. He was able to visit the laboratory facilities, which are currently under renovation. These facilities are quite extensive offering an ideal separation between all the departments and sections. For instance, each technical department has a screening section, confirmation section and research section.

The observer witnessed the reception of the samples taken during the 4th stage, which arrived at the laboratory via Dynaposte® at around 10 AM.
The procedure for receiving the samples was carried out in a highly professional manner, in accordance with the laboratory's quality system and WADA's International Laboratory Standards. The samples were frozen at the time of their reception.

The observer was able to look at some of the laboratory's quality documents. The quality control system is well structured and implemented in a very active and highly professional manner.
The IO team concluded that the analysis reports described the methods used for screening and confirmation, but that these reports did not mention the technical procedure codes used.
The IO team also concluded that there were a few weaknesses concerning the security system. For example, a door leading outside remained open while the samples were being received; the WADA observer was not asked for identification at the entrance to the laboratory and his presence was not recorded.

The laboratory sign at the entrance on avenue Roger Salerno was not very visible, which made it difficult for any visitor trying to locate it.

During the Tour de France the Laboratory made small changes to the way in which it organised its daily activities. The samples from the Tour de France were processed as a priority and working hours were extended slightly, but the laboratory was not open at night or during the weekend.

Outside normal working hours and during the weekend, there was nobody at the laboratory, not even a security guard. The laboratory does, however, have a double security system:

- centrally controlled anti-burglary shutters on all the windows
- an alarm linked to a remote monitoring and response centre (at the Director or General Secretary's request).

While the WADA IO team was present at the Tour, following a telephone call between 3 and 4 PM, the laboratory sent the analysis reports by fax, ensuring anonymity was preserved, to the President of the IO team.

After the IO team's departure the Laboratory sent the analysis reports every day via the IO team President's confidential fax number in Lisbon.

The analysis reports were sent to the UCI Anti-doping Commission and the President of the French Council for the Prevention and Fight against Doping (CPLD) and for information, to the President of the International Olympic Committee's Medical Commission and to the person dealing with these matters at the French Cycling Federation.

During the Tour de France the LNDD processed a total of 142 samples (132 taken in-competition and 10 out-of-competition). In 2002, 138 samples were taken and 170 samples in 2001.
The in-competition samples taken during the prologue, 2nd, 4th, 6th, 7th, 8th, 9th, 12th, 13th, 14th, 15th, 16th, 18th and 19th stages and all the out-of-competition samples were screened for erythropoietin and hydroxyethyl starch (HES).
This type of screening was carried out on a total of 100 samples (70.4% of all the samples taken during the Tour), which marks an increase compared with the last few years (82 samples in 2002 and 72 in 2001).

All the samples were also screened for glucocorticosteroids.

The timetable for taking samples was drawn up by the French Ministry of Sport and the LNDD in cooperation with the UCI Anti-doping Commission. Either the Ministry or the UCI gave the laboratory the order to carry out the EPO analyses on the samples.

During the Tour de France the time taken for the results to be issued to the WADA IO team was on average around 66 and 72 hours after receipt of the samples at the laboratory for normal and EPO screening procedures respectively.

The time for issuing the results for normal procedures was around 100 hours for samples taken during the 12th and 14th stages. It must be pointed out that samples arrived at the laboratory every day, at least 14 hours after the in-competition tests had been completed.

Tables 1 and 2 show all the reports indicating the presence of doping agents.

Table 1
Reports indicating the presence of doping agents other than erythropoietin

Substances	Number of samples	Comments on concentrations
Triamcinolone acetonide	28	Median – 6.0 ng / ml Variation – 1.0 ng / ml – 19 ng / ml
Betamethasone	6	Median – 26 ng / ml Variation – 1 ng / ml -37 ng / ml
Salbutamol	6	Median – 143 ng / ml Variation – 87 ng / ml -449 ng / ml
Dexamethasone	3	Median – 10 ng / ml Variation – 8 ng / ml -15 ng / ml
Caffeine	1	10.7 µg / ml
Terbutaline	1	
Lidocaine	1	
Total:	46	

Table 2
Reports indicating the presence of recombinant erythropoietin or with anomalies

Classification	Number of samples	Comments
Presence of recombinant erythropoietin	1	
Undetectable recombinant erythropoietin	15	Camera intensity below 10,000 LAU
Unclassifiable recombinant erythropoietin	4	Electrophoretic migration between 48% and 65%, between 65% and 85% for NESP and for epoietin alfa and beta respectively
Total:	20	

Looking at Table 2, it should be pointed out that 20% of the test results for the samples analysed for EPO had anomalies and that the only positive case was recorded in a sample taken out-of-competition.

The IO team has to emphasise the quality of the LNDD in terms of management, quality control system, facilities, staff and equipment. It would like to thank the laboratory's managers for their due cooperation throughout the whole of the Tour de France.

RECOMMENDATIONS

The IO team would like to make a few constructive recommendations with a view to optimize the services provided by the LNDD during the Tour de France:

- *The laboratory should reduce the time taken to issue results during the Tour de France. In a competition organised in stages like the Tour de France, a delay in announcing a positive result can allow a rider who has taken drugs to distort the competition results for a few days.*

  To achieve this aim, the IO team recommends that the laboratory increase its working hours, by operating extra hours at night and during the weekend and that samples are transported at between 0ºC and 10ºC to facilitate the start of the technical procedures carried out in the laboratory.
- *The laboratory should have a system for receiving the samples 24 hours a day, which would facilitate the security system protecting the samples and the start of the technical procedures.*
- *The laboratory's security system should be reviewed to eliminate a few weak spots.*
- *The laboratory should enter in the report the codes for the technical procedures used in the analyses to make the information clearer for its customers.*

8. HANDLING THE RESULTS

The IO team would like to say at this point that, in addition to the analysis reports from the LNDD, it also received copies of the reports with the concealed identities of the riders from the doctor taking the samples, because the French law does not allow them to be disclosed.

The results were handled during the Tour de France by the UCI (UCI Anti-doping control regulations) and by the French Council for the Prevention and Fight against Doping (CPLD) (French Public Health Code – Article L 3612-1).

a. WHILE THE OBSERVERS WERE PRESENT

During this period the IO team received a copy of the reports either from the doctor taking the samples or the UCI Medical Inspector the day after each test, in competition or out of competition. The observers have nothing to report during this period.

b. AFTER THE OBSERVERS' DEPARTURE

During this period the President of the IO team received copies of the reports at his confidential fax number in Lisbon or by post.

On 25th July at 1440 (Paris time), the President of the IO team received a fax of analysis report no. 117/07-EPO, which confirmed the presence of recombinant erythropoietin in a sample taken on 18th July during an out-of-competition control. Twenty minutes later the President of the IO team received a telephone call from the President of the UCI Anti-doping Commission, who provided the same information and said that the UCI Medical Inspector was going to inform the rider and his cycling manager after the final stage of the day.

On 1st August the President of the IO team received the report on the B sample analysis carried out at UCI's request on 28th July, which confirmed the presence of recombinant erythropoietin.

On 4th August the President of the IO team requested additional information from the President of the UCI Anti-doping Commission concerning the disciplinary procedures applied in the event of a positive test, as well as information about the existence of other disciplinary procedures concerning positive results obtained by the LNDD, relating to samples taken during the Tour de France (copy of fax in Appendix IV).

On 6th and 7th August the President of the IO team received faxes (in Appendices V and VI) from the President of the UCI Anti-doping Commission informing him that the positive result case was handled in accordance with Articles 174 to 183 of the UCI Anti-doping regulations.
The UCI received the result of the B sample analysis after the final day of the Tour de France and for this reason, it was not possible to apply the principles described in Article 183 of the UCI Anti-doping regulations i.e. to exclude the rider from the race. The case was handed over to the rider's national federation, in accordance with Article 113 of the UCI Anti-doping regulations for it to apply disciplinary procedures, which must be completed within one month of the time limit set for the dispatch of the summons.

In a fax of 6th August the President of the Anti-doping Commission advised the observers that all the other positive cases were examined by the UCI Anti-doping commission, which decided that all these cases were justified on medical grounds. In the case of treatments taken during the Tour de France, all these treatments had been prescribed with the cooperation of the UCI's medical experts and were entered in the riders' health booklets.

The IO team reviewed the drugs declared in the reports and noted that in 71.8% of the samples taken the riders had declared that they had taken a drug. In 60.6% of the samples taken, glucocorticosteroids were administered and in 27.5% of cases beta-2-agonists were used.
The IO team confirmed that, in spite of the information from the UCI Anti-doping Commission about the existence of justified medical grounds in every case where there was a positive result for glucocorticosteroids, the timescales between the date the sample was taken and the date entered in the health booklet when the substance was administered were extremely large.

The IO team calculated these differences in twenty of the twenty-eight positive reports with triamcinolone acetonide, which was 37 days on average, with a variation between 8 and 57 days. In five cases the difference was more than 45 days. The IO team could find no reliable scientific data which could support a urinary excretion time of this duration.

On two occasions the IO team did not find that there was any medical justification concerning the cases showing a positive result for glucocorticosteroids:

- one positive result with triamcinolone acetonide with a medical declaration specifying Betamethasone by infiltration;
- one positive result with Betamethasone (30 ng/ml) with a medical declaration specifying cutaneous aapplication of Betamethasone, the last occasion being 39 days before the test.

On the 18th August the President of the IO team requested additional information from the General Secretary of the CPLD concerning the disciplinary procedures applied with regard to the positive results received from the LNDD, relating to the samples taken during the Tour de France (copy of fax in Appendix VII).

On the same day the President of the IO team received a fax from the General Secretary of the CPLD (in Appendix VIII), informing him that, apart from the cases involving EPO, where proceedings were already under way, the President of the CPLD sent an initial letter to several riders to ensure that a “proof of a medical prescription based on justified therapeutic grounds” is sent to the CPLD.

RECOMMENDATIONS

The IO team recommends the following measures for improving the system for handling results in the Tour de France and other cycling competitions:

- *Results should be handled by an Anti-doping Commission with representatives from the UCI Anti-doping Commission and the CPLD to avoid any conflicts. A single code of regulations should be adopted, in accordance with WADA’s World Anti-doping Code.*

- *The UCI should adapt its anti-doping regulations to allow temporary suspension after the result of the B sample analysis has been notified and in accordance with the guidelines applicable to temporary suspensions under the World Anti-doping Code (Article 7.5).*

  Any rider who has obtained a positive result from the test carried out during the Tour de France may continue to participate in competitions until the final decision is made by his national federation, which has one or two months (if the national federation has a disciplinary appeal body) to complete the disciplinary procedures.

  Until the final decision is made, the rider can help other riders in competitions organised in stages to achieve victories or a good position in the classification. Article 184a of the UCI Anti-doping regulations does not cover every case where temporary suspension proves to be necessary in order to ensure sporting equality.
- *It is necessary to carry out studies into the urinary excretion of glucocorticosteroids following administration of these products by inhalation, local injection, intra-articular injection or other forms of local application to verify the detection time for these substances in urine. We also recommend carrying out studies concerning the metabolism of cortisol in riders in order to detect a temporary or permanent inhibition of its production.*
- *The UCI Anti-doping Commission should be more careful in its analysis of substances and the dates entered in the health booklet when verifying the existence of justified medical grounds if, for instance, the Laboratory has detected a glucocorticosteroid, as specified in point 3 of Article 64 of the UCI's Anti-doping regulations.*

9. INFORMING AND EDUCATING ATHLETES

The day before the Tour de France started, the ASO organised a session to raise the riders' awareness with regards to doping issues in the reception room at the Paris City Hall. This session was attended by Patrice Clerc (President of the ASO), Jean–Marie Leblanc (Director of the Tour de France), Daniel Baal (Deputy Director of the Tour), Jean-François Pescheux (Competition Director), all the teams and their coaches and the members of the WADA IO team.

The organisers of the Tour, in particular, Jean-Marie Leblanc and Daniel Baal spoke in very clear and firm terms about observing the Tour de France's Code of Ethics and they reminded the riders that zero tolerance was applied in this competition.
Daniel Baal gave some explanations about the anti-doping controls which were to be carried out during the Tour and reminded the riders that the UCI would introduce for the first time during the Tour an analysis for free plasma haemoglobin with a view to detecting any possible use of synthetic haemoglobin. He announced that all the riders would receive the same leaflet as in 2002 entitled "Dopage et Cyclisme - ce que vous devez savoir" (Doping and Cycling – what you need to know), which contained very important and useful information for the riders (in Appendix IX).

Daniel Baal stressed the importance of the Tour de France's Code of Ethics (in Appendix X), which appears in the regulations and in the Tour guide book and was signed by all the teams.
This commitment was included both in the Agreement between the ASO and the International Association of Professional Cycling Groups (AIGCP) and in the Agreement signed with each team before the Tour started.

10. UCI MEDICAL COMMISSION

For the third time the UCI appointed a medical commission for the Tour comprising nine doctors. Based on a rota system, two of them were present at all times during the Tour. This commission's task was to observe, advise on and authorise the administration of drugs, especially those subject to restrictions.

The observers requested from the UCI to be informed of the Medical Commission's activities while they were present at the Tour. However, the observers never received any information about any requests made by any team doctor or rider to the Medical Commission.

The observers want to congratulate the UCI for setting up the Medical Commission.

11. MISCELLANEOUS

The French government has set up a system for importing drugs similar to the system introduced during the 2002 Tour.

This involves, in particular, recommendations about importing drugs, with an emphasis on the importance of professional team doctors having two medicine kits (an emergency kit containing possible doping substances and a backup kit without any doping substances).

It is also recommended that a list is kept up to date of all the drugs contained in the two kits being taken out and put back and that these documents can be shown, particularly during custom controls. The CPLD sent the ASO a document summarising these procedures with the reminder that doctors from foreign teams must declare the activities they intend to carry out when in France during the Tour de France. The observers congratulate the French government for this initiative.

The observers also have to congratulate the ASO for its reaction concerning the doping problematic and for implementing during the last few years measures capable of making a significant contribution to the fight against doping during the Tour de France. These include:

- Changes to the course so that fewer kilometres are covered in total and in the time-trial stages and easier stages with fewer hills.
- Ensuring that there are always two days' rest during the Tour with easier transfers.
- Producing a guide for hoteliers offering advice on the cyclists' food requirements and on measures for ensuring the riders get sufficient rest.

12. CONCLUSIONS

The Tour de France is one of the most important sporting events in the world, with huge media coverage and a considerable financial impact.

This is why the positive and negative aspects of this competition will attract so much media attention and therefore, may have major repercussions from an educational point of view.
The scandal during the 1998 Tour de France brought many changes in the fight against doping in almost every sport and in the world of cycling, in particular.
The changes made are moving in the right direction, based on closer cooperation between the responsible bodies (French Ministry of Sport, CPLD, UCI and the Tour de France's organisation) in developing a strategy to combat doping during the Tour de France. The meeting held before the Tour started, between the responsible bodies and WADA, is a good example to support the statement we have made. Accepting an Independent Observer team from WADA is another example of this positive development.

The anti-doping control system developed during the 2003 Tour de France involved considerable sums of money and sometimes was even excessively demanding (e.g. transporting the case containing the samples by aeroplane). It had weaknesses too, though, which may be highly significant in the pursuit of the ultimate goal – to protect the riders' health and retain the true spirit of sportsmanship, especially for the riders who do not use banned substances or methods.
The observers have no doubts at all about the good intentions of all those people involved in planning and implementing the system, but these small weaknesses may help possible cheaters to get round the system or find solutions they can use to defend their actions.

Procedures for taking samples might well be carried out under ideal conditions, but if there are riders who know for sure that they will not be tested twenty minutes before the finish line or even before they have started (time-trial stages) and have the opportunity to perform some kind of physical manipulation before they reach the doping control station, the system cannot guarantee sporting equality.

In spite of some weaknesses in the anti-doping control system, the observers would like to stress that there were strong, positive points to come out of the 2003 Tour de France:

- The firm tone adopted in the speech made by those responsible for organising the Tour de France about observing the Code of Ethics and the fight against doping.
- The soundness of the UCI's health check system and the important role this system plays in the fight against doping in cycling.
- The strategy developed by France in its fight against doping, especially in the area of legislation and through creating the CPLD, providing a high-quality anti-doping control laboratory and implementing measures to prevent trafficking of doping substances.

Closer cooperation between the bodies responsible for anti-doping controls during the Tour de France and the implementation of WADA's World Anti-doping Code and International Standards will be sufficient to guarantee an ideal system. However, all the measures implemented may not be enough if all the partners involved do not assume their responsibilities, especially with regard to protecting the riders' physiological limits.
Furthermore, it is important to note that from now on, the observers will only carry out their mission if they have access to all the required documentation.

13. ACKNOWLEDGEMENTS

The observers would like to thank very sincerely all those who contributed to the success of this mission, in particular, the UCI, French Ministry of Sport, the ASO, CPLD and LNDD.

The President of the team would like to express his sincere gratitude to all the members of the IO team who were present during the 2003 Tour de France, where they demonstrated a high level of competence and availability.

14. MEMBERS OF THE INDEPENDENT OBSERVERS TEAM

- Prof. Dr. Luis Horta – Medical expert (POR)

  President of the Independent Observers

  Medical Doctor with a specialization in sports medicine, Director of the Lisbon Anti-doping Laboratory

- Dr. Anik Sax – Medical expert (LUX)

  Independent Observer

  Medical Doctor with a specialization in sports medicine, Department Head at the Institute of Sports Medicine in Luxembourg

- Ms. Jennifer Ebermann – Doping Control Expert (GER)

  IO Programme Manager / Independent Observer

  Manager, WADA

Appendix 1: Procedure for determining blood parameters (UCI)

Juillet 03

Procédure de l'examen médical pour la détermination des paramètres sanguins

0. Conditions générales

Le laboratoire accrédité par l'UCI est l'Institut Indépendant qui assume la responsabilité opérationnelle scientifique et médicale globale de la récolte des échantillons sanguins et des paramètres biochimiques nécessaires à l'établissement de valeurs fiables de l'hématocrite.

Le responsable médical du programme est le Professeur Patrice Mangin.

Pour chaque examen l'UCI désigne **un ou plusieurs Inspecteurs Médicaux.**

La procédure se déroule dans un local adapté qui peut être une chambre d'hôtel. Si possible dans l'hôtel où **sont logés les coureurs, pour les prises de sang. L'appareil de mesure est installé dans un endroit pratique pour la remise des résultats.**

1. La prise de sang doit avoir lieu avant tout effort physique et de préférence avant le petit déjeuner.

A cette fin, l'Inspecteur Médical de l'UCI transmet personnellement le formulaire "Notification au coureur" au Directeur Sportif ou au Chef d'Equipe, à défaut au coureur (dans un délai raisonnable).

2. Le coureur désigné doit se présenter

- dans le délai mentionné sur la notification;
- au médecin de l'Institut Indépendant, dans la chambre mentionnée sur la notification.

Il est obligé de déposer sa licence auprès de l'Inspecteur Médical.

3. Le laboratoire désigné s'engage à assurer les prises de sang veineux chez les cyclistes qui lui sont désignés par l'UCI dans les règles de l'art et à effectuer les analyses dans les délais requis.

A cette fin, **le laboratoire** met à disposition l'équipe médicale scientifique et technique nécessaire; notamment pour la prise de sang, un médecin diplômé, familier des problèmes du sport. **Le laboratoire garantit l'expérience du médecin quant à l'exécution de prises de sang successives.**

Le matériel du prélèvement est fourni par **le laboratoire**.

Les tubes sont rendus anonymes au moment du prélèvement.

NB. Sur demande du coureur, la prise de sang peut également être pratiquée par le médecin du G.S., à la condition *sine qua non* qu'il se conforme au protocole établi. La

présence de l'Inspecteur Médical est obligatoire. A défaut ou si l'échantillon de sang n'a pas été prélevé dès le 1er essai, la ponction est effectuée par le médecin de l'Institut.

4. Après les prises de sang, l'équipe **du laboratoire** effectue les analyses requises.

   Elles doivent répondre aux critères de qualité reconnus dans la profession.

   A cette fin, l'on utilise un appareil **« COULTER PORTABLE DE LA SERIE A^c ● T ou SYSMEX XT-2000i ».**

   Pour l'Hb synthétique, l'appareil **« HEMOCUE LOW PLASMA HEMOGLOBINE »** pourra être également employé.

   Les résultats obtenus sur place seront communiqués immédiatement sous forme écrite au responsable désigné par l'UCI, soit l'Inspecteur Médical, soit un médecin de la Commission Sécurité et Conditions du Sport.

   La totalité des paramètres sanguins sera communiquée au Président de la Commission Sécurité et Conditions du Sport.

5. L'Inspecteur Médical fait mention:

   A. des résultats aux Directeurs Sportifs ou Chefs d'Equipe concernés, en leur restituant la licence des coureurs examinés,
   B. des résultats inacceptables au Président du Collège des Commissaires au moyen du formulaire de l'UCI "Déclaration d'inaptitude",
   C. des valeurs hématocrite aux coureurs selon leurs désirs.

Cette procédure correspond aux conditions de travail idéales au déroulement des contrôles. Les déviances éventuelles ne peuvent donner lieu à des contestations, s'il n'est pas établi qu'elles ont pu influencer la validité des résultats.

Appendix 2: Measurement protocol (UCI)

Juillet 2003

Protocole de mesure de l'hémoglobine plasmatique libre

A. PRISE DE SANG – ECHANTILLONS A ET B

1. **Le coureur doit être en position assise.**

2. **Le garrot ne doit pas être posé trop longuement inutilement (délai de moins de une minute entre la pose du garrot et l'apparition du sang dans le tube).**

3. **Deux tubes de 2,7 ml de sang sont prélevés par une ponction unique. Ils sont désignés arbitrairement échantillons A et B. Ils sont étiquetés avec un numéro identique.**
   Le tube A est roulé au minimum 15 minutes et analysé immédiatement tel que la procédure le décrit ci-dessous dans le point C.
   Le tube B est placé dans un flacon numéroté. Le flacon est attribué à l'équipe toute entière. Le numéro du flacon est inscrit sur le formulaire "Contrôle sanguin" sous le point 9.
   Cet échantillon peut être utilisé pour une deuxième analyse, en cas de résultat entraînant une déclaration d'inaptitude.

4. **Si pour une raison quelconque, le remplissage du deuxième tube présente des difficultés par la même ponction, il sera demandé au coureur s'il désire une deuxième ponction, sinon il admet qu'en cas de résultat entraînant une déclaration d'inaptitude pour l'échantillon A, la deuxième analyse se fera également sur l'échantillon A. Cette condition est acceptée sous le chiffre 11 du formulaire "Contrôle sanguin".**

5. **En cas de résultat entraînant une déclaration d'inaptitude pour l'échantillon A, le coureur peut demander que l'échantillon B soit ouvert devant lui et analysé suivant les mêmes règles que pour l'échantillon A. Après une contre-expertise, c'est le résultat de l'échantillon B qui sera pris en compte de manière définitive. La demande d'ouverture de l'échantillon B doit être formulée dans un temps raisonnable, après l'annonce du résultat de l'échantillon A, en tenant compte des impératifs de la course et de la qualité des analyses. Ce délai sera discuté le cas échéant entre l'inspecteur médical, le directeur sportif du coureur et le responsable scientifique de l'équipe médical (cf. art 13.1.055 du règlement UCI).**

C. ANALYSE

1. Préparation des sangs et mesures

   Les sangs sont roulés pendant 15 minutes au minimum avant l'analyse pour homogénéisation et stabilisation de température.

   Après la détermination des valeurs hématiques habituelles (Hct, Hb, réticulocytes), les échantillons seront centrifugés.

2. Coloration du plasma

La couleur du plasma sera observée. Si le plasma a une **coloration rose/rouge**, l'échantillon sera alors analysé pour l'hémoglobine plasmatique libre, avec les appareils prévus (Coulter, Sysmex ou Hemocue).

Si la valeur d'hémoglobine plasmatique libre est supérieure à **300mg/dl (3g/l)**, on procédera à l'analyse de l'échantillon B.

- **Analyse de l'échantillon B**
  - Le coureur ou son mandataire est alors informé qu'il peut assister, dans un délai défini par l'inspecteur médical, à l'analyse de l'échantillon B.
  - La contre-expertise sera effectuée à l'aide de l'analyseur Coulter ou Sysmex ou Hemocue.
  - ***Déroulement de la contre-expertise :***
    - ***effectuer deux mesures à l'aide de l'analyseur Coulter ou Sysmex ou Hemocue***
    - ***si la valeur est > à 300mg/dl (3g/l) le coureur est déclaré inapte.***

Appendix 3: Information for riders (UCI)

UNION CYCLISTE INTERNATIONALE
COMMISSION SECURITE ET CONDITIONS DU SPORT

Messieurs les coureurs,

Nous aimerions vous donner quelques informations concernant les contrôles sanguins.

Contrôles sanguins
Lors des contrôles sanguins, notamment pendant le Tour de France, les paramètres habituels seront analysés : hématocrite, hémoglobine et réticulocytes.
Si les analyses devaient montrer des profils anormaux (valeurs ou évolutions anormales), on demandera au coureur (ou à son médecin) quelle est l'origine de cette anomalie, et on lui fera savoir qu'il sera davantage contrôlé, car il restera suspect à nos yeux.
Dès cette année, nous utilisons un nouveau protocole pour identifier les coureurs qui ont un profil sanguin non normal.
Il est évident qu'on les soumettra à des contrôles antidopage, pour la recherche de l'EPO ou du NESP.

Hémoglobines synthétiques
Depuis le début de l'année, nous mesurons, lors des contrôles sanguins, un nouveau paramètre : l'hémoglobine plasmatique libre. Ce paramètre augmente de façon très importante (plusieurs centaines de fois) en cas d'administration d'hémoglobine synthétique. Comme vous savez, l'Hb synthétique est une substance interdite, et sa commercialisation à plus large échelle est en train de se réaliser. Or, vu qu'elle est encore indécelable lors des contrôles urinaires, il nous fallait trouver une solution pour décourager son éventuelle utilisation, afin de garantir le droit à avoir des compétitions équitables.
Ce paramètre ne peut pas être employé en tant que test antidopage et, par analogie à ce qui se passe avec les valeurs d'hématocrite élevées, un coureur qui aura une valeur d'**hémoglobine plasmatique libre > 300mg/dl (3g/l) sera donc déclaré inapte**, et obligé à se soumettre aux investigations hématologiques. L'hémoglobine synthétique, grâce à la détermination de ce paramètre, peut être détectable pendant plusieurs jours.
Nos équipes médicales vont analyser ce paramètre lors de tous les contrôles sanguins du matin (y compris celui d'aujourd'hui), qui se dérouleront de la même façon qu'auparavant (même quantité de sang prélevée).

En restant à votre disposition pour tout renseignement supplémentaire, nous vous souhaitons tout le succès sportif que vous méritez.

Dr Leon Schattenberg
Président Commission Antidopage

Dr Mario Zorzoli
Médecin UCI

CH 1860 Aigle / Suisse
✆ +41 24 468 58 11 fax +41 24 468 58 12
www.uci.ch

Appendix 4: Request for information 04/08/03

LABORATÓRIO DE ANÁLISES E DOPAGEM
Avª. Prof. Egas Moniz (Estádio Universitário)
1600 LISBOA - PORTUGAL

TELEFAX Nº.: 21 797 75 29

De:	Prof. Doutor Luís Horta
Para:	**President of the Medical Commission of UCI**
FAX Nº.:	00 31 46 400 85 21

Nº. de Páginas: 1 **Data:** 04/08/2003

Dear Dr. Leon Schatewberg

As President of the Independent Observer Mission during the Tour de France, I want kindly request information about the development of the disciplinary procedures done in the positive case met in the sample A 190775 and confirmed in the sample B 190775, on 1st of August.

I want also to request if UCI develop any other disciplinary procedures concerning the positive reports delivery by the French Antidoping Laboratory in the samples collected during the Tour de France.

Best regards.

Luís Horta

President of Independent Observer Mission

Appendix 5: UCI reply (07/08/03)

INTERNATIONAL CYCLING UNION
CH 1860 Aigle / Switzerland
☎ : +41 24 468 58 11 – Fax : +41 24 468 58 12

FAX MESSAGE

To	:	Prof Dr. Luis Horta
Fax nbr	:	+351 21 797 75 29
From	:	Dr. Leon Schattenberg
Date	:	7 August 2003
Ref	:	Antidoping Services / Lsch / cv
Total pages	:	1 (including this one)
Subject	:	***Independent Observer Mission***

Dear Dr. Horta,

I would like to add some information to my last correspondence. As regard to the duration of the proceedings and according art. 113 AER: *"The proceedings before the competent body of the licence-holder's national federation must be completed within one month of the time limit set for the dispatch of the summons."*

We will of course keep you informed all along the procedure. All the documents we will get from the national federation shall be sent to you.

Best Regards,

On behalf of the Antidoping Commission,

Dr. Leon SCHATTENBERG, President

Appendix 6: UCI reply (06/08/03)

INTERNATIONAL CYCLING UNION
CH 1860 Aigle / Switzerland
✆ : +41 24 468 58 11 – Fax : +41 24 468 58 12

FAX MESSAGE

To	:	Prof Dr. Luis Horta
Fax nbr	:	+351 21 797 75 29
From	:	Dr. Leon Schattenberg
Date	:	6 August 2003
Ref	:	Antidoping Services / Lsch / cv
Total pages	:	2 (including this one)
Subject	:	***Independent Observer Mission***

Dear Dr. Horta,

I would like to give you the following information as regard to your demand concerning the Tour de France 2003.

The positive case found in the sample A+B 190775 has been and is being managed according to the UCI AER, art. 174 to 183 (Stage races).

The UCI was informed by the laboratory of the B sample result after the Tour de France ended. Therefore, the case has now been transmitted to the rider's national federation for disciplinary procedure.

As far as the corticoids are concerned, the results have been examined by the UCI Antidoping Commission. All cases were justified on medical grounds and were accepted by the Antidoping Commission. For treatments prescribed during the Tour de France, all of them have been prescribed with the cooperation of the UCI medical experts and treatments have been written in the health booklet.

I also invite you to read two articles written by Dr. Gérard Guillaume:

1. Corticothérapie locale et effet systémique (revue de la littérature) publié dans Médecin du Sport ; Gérard Guillaume et Marcel-Francis Kahn ; e-mail address : g-guillaume@wanadoo.fr

2. Intérêts et limite des infiltrations de corticoïdes dans le sport, publié dans journal de traumatologie du sport.

I will try to send you other information and publication as soon as possible.

Best Regards,

On behalf of the Antidoping Commission,

Dr. Leon SCHATTENBERG, President

Appendix 7: Fax to the CPLD (18/08/03)

Presidência do Conselho de Ministros
Secretaria de Estado da Juventude e Desportos

Instituto do Desporto de Portugal
Laboratório de Análises e Dopagem

FAX

REFERÊNCIA: (REFERENCE)	049/L.A.D./2003
DATA: (DATE)	18 DE AGOSTO DE 2003

PARA: (TO)	CPLD MR. PHILIPE ROUX-COMELI SÉCRETAIRE-GENERALE		
A/A:		FAX:	00 33 1 4062 77 39
DE: (FROM)	INSTITUTO DO DESPORTO DE PORTUGAL – LABORATÓRIO DE ANÁLISES E DOPAGEM		
N.º PÁGINAS: (NUMBER OF PAGES)	1		
ASSUNTO:	TOUR DE FRANCE		

Cher Philipe Roux-Comeli,

Comme President de la Mission d' Observateurs Independents de l' AMA dans le Tour de France, j'ai reçu les copies des PV sans l' identification des coureurs et les rapports analytiques du LNDD.

J' ai reçu plusieurs rapports analytiques positives pour glucorticosteroids. J'ai demande des informations à l' UCI sur la géstion de ces resultats. L' UCI a informé que sa Comission Médicale a decidé que tous les rapports positives avec glucocorticosteroids étions justifié par une declaration médicale dans le carnet de santé.

Je suis entrain de finir le rapport de notre mission et je veux savoir si le CPLD a quelque chose a ajouter a la position de l' UCI.

Salutations.

Luís Horta
President de la Mission O. I. de l' AMA

AV.ª PROF. EGAS MONIZ (ESTÁDIO UNIVERSITÁRIO) – 1600-190 LISBOA
TEL: (351)21 798 90 73 • FAX: (351)21 797 75 29
E-MAIL: cmd.lisboa@mail.telepac.pt

Appendix 8: Reply from the CPLD (18/08/03)

CONSEIL DE PRÉVENTION ET DE LUTTE CONTRE LE DOPAGE

39, rue Saint Dominique
75007 PARIS

Le Secrétaire Général

République Française

Paris, le 18/08/2003

Tél : 01.40.62.76.76
Fax : 01.47.53.75.36

Caractère : très urgent ☒
urgent ☐
courant ☐

EXPEDITEUR : Philippe ROUX COMOLI

DESTINATAIRE : Dr Luis HORTA, Président de la mission O.I. de l'AMA

N° DE FAX : 00.35.1.217977529

Monsieur le Président,

Le Président du Conseil de prévention et de lutte contre le dopage a reçu l'ensemble des procès-verbaux et résultats d'analyse relatifs aux contrôles effectués lors du Tour de France 2003.

Outre le cas portant sur l'EPO dont la procédure est en cours, il a transmis un premier courrier à plusieurs coureurs afin de s'assurer que ceux-ci transmettent au Conseil « *la preuve d'une prescription médicale à des fins thérapeutiques justifiées* ». L'instruction est donc en cours.

En restant à votre entière disposition pour toute information complémentaire, je vous prie d'agréer, Monsieur le Président, l'expression de mes sentiments les meilleurs.

Philippe ROUX COMOLI

Nombre de pages y compris celle-ci : 1

Appendix 9: ASO information leaflet for riders

Introduction

Chaque sportif souhaite améliorer ses performances.
La compétition étant au cœur du sport, surtout lorsqu'il se pratique à un haut niveau, il est légitime de chercher à se dépasser. Toujours plus haut, toujours plus fort !
Pour y parvenir, certains sont prêts à toutes les compromissions, y compris à tricher. Certains sont prêts à tous les sacrifices, y compris à se détruire la santé. Le dopage est un miroir aux alouettes. Il donne au corps l'illusion d'accroître ses capacités. En fait, sous dopage, le corps va artificiellement au-delà de ses limites. Cela n'est pas sans conséquences.
Ce guide vise à vous informer sur les risques liés au dopage pour votre santé. Il a pour objectif de vous montrer que le dopage est loin d'être anodin.
Ce guide est également destiné à vous montrer à quel point l'idée du dopage est éloignée du sport. Faire du sport, c'est d'abord prendre soin de son corps. Ceci est vrai quel que soit le niveau auquel on le pratique.
Parce que vous êtes des professionnels, ce message vous concerne tout particulièrement. Vous pratiquez un sport de très haut niveau et la tentation du dopage peut être très présente. Il vous concerne aussi parce que vous êtes un exemple pour les jeunes. Il importe de leur montrer, en particulier à ceux qui coureront dans quelques années sur les routes du Tour de France, que l'on peut être performant et gagner sans se doper. Car se doper, c'est tricher et mettre en péril sa santé : pour vous-même, pour les autres sportifs et pour le sport, refuser le dopage c'est vital !

Qu'est-ce que le dopage ?

Pour un sportif, se doper consiste à consommer des produits interdits ou à recourir à des méthodes prohibées. Dans tous les cas, l'objectif est d'obtenir une amélioration artificielle de ses performances physiques.
Il existe un grand nombre de produits dopants. Schématiquement, on peut les classer en deux grandes catégories : les médicaments et les stupéfiants. Parmi les médicaments, on trouve notamment les bêtabloquants, les corticoïdes, les anabolisants, les anesthésiques locaux, les diurétiques et l'hormone de croissance.
Un grand nombre de stupéfiants peut être utilisé comme produit dopant. Citons en particuliers les stimulants comme la caféine, l'éphédrine, la cocaïne et les amphétamines. Les narcotiques, comme le cannabis, la méthadone, l'héroïne et la morphine, figurent également parmi les stupéfiants.
Tous ces produits ne sont pas totalement interdits. Certains d'entre eux sont à usage restreint, c'est-à-dire qu'ils ne peuvent être utilisés que dans certaines conditions. C'est par exemple le cas des anesthésiques locaux, des corticostéroïdes et des bêtabloquants.
Par ailleurs, certaines techniques sont utilisées dans le cadre du dopage. Ces méthodes interdites sont le dopage sanguin et les manipulations chimiques, pharmacologique ou physique visant à masquer les substances dopantes dans les échantillons d'urine utilisés lors des contrôle anti-dopage.

Vrai ou Faux ?

Vrai ou Faux ?

Les produits dopants sont dangereux par eux-mêmes.

Faux

C'est la façon de les consommer qui est dangereuse. Certains des produits utilisés pour se doper sont des médicaments très utiles pour soigner des maladies. Ainsi, il faut bien distinguer l'usage de ces produits et l'abus de leur consommation. C'est l'abus qui est dangereux et qui conduit bien souvent à la dépendance.

Quels sont les risques du dopage ?

Le dopage fait principalement peser des risques pour la santé. La consommation excessive de produits dopants entraîne ainsi de nombreux effets nocifs. Ces derniers peuvent survenir rapidement ou, à l'inverse, apparaître longtemps après la prise du produit dopant (jusqu'à plusieurs années après).
A chaque produit sont associés des effets nocifs.

Citons quelques exemples :

Les stimulants (caféine, amphétamines...)

Ils peuvent entraîner des troubles cardio-vasculaires (troubles du rythme cardiaque, infarctus du myocarde, accident vasculaire cérébral), des troubles neurologiques et neuro-musculaires (troubles de la coordination, par exemple) et des troubles psychiques (agressivité ou dépression entre autres).

Les stéroïdes anabolisants

Chez l'homme, ils provoquent des atteintes au niveau de la prostate et du foie, une augmentation de la taille des seins, des troubles du fonctionnement des testicules, une production réduite des spermatozoïdes (avec un risque d'infertilité).

Les diurétiques

Ils peuvent provoquer une déshydratation aigüe, des troubles cardio-vasculaires, une fatigue et un état de faiblesse généralisée, ainsi qu'un dysfonctionnement des reins.

Les hormones peptidiques

(EPO, hormones de croissance, DHEA) : les principaux effets indésirables de ces produits sont la survenue d'une insuffisance cardiaque sévère (pouvant entraîner un infarctus du myocarde, voire une mort subite), d'un diabète, de troubles sexuels et de cancers.

Tous les sportifs recourrant à des produits dopants ne présentent pas systématiquement l'ensemble de ces troubles. Il existe en fait une variation importante d'une personne à une autre. Certains seront plus sensibles que d'autres aux effets indésirables d'une consommation de substances dopantes, sans que l'on puisse prédire à l'avance le degré de sensibilité de chacun. Mais il n'existe pas d'individu qui soit totalement insensible aux effets néfastes des produits dopants.

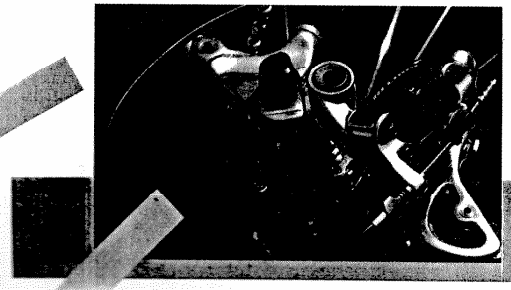
Le saviez-vous ?

Le saviez-vous ?

On considère que la durée de vie des sportifs qui se dopent est inférieure d'une vingtaine d'années en moyenne à celle de la population générale

Comment se passer du dopage ?

Le dopage n'est pas une fatalité, même dans le sport de très haut niveau. De très nombreux champions ont connu de grande carrière sans recourrir aux produits dopants. Comment ont-ils fait, comment vous pouvez faire ?
En fait, pour pratiquer un sport, quel que soit son niveau, sans user de substance dopante, il n'y a pas de « recette miracle » ! La performance repose sur les principes de base que sont l'entraînement, la récupération, l'hygiène de vie, le suivi médical et le travail d'équipe.



5 conseils pour améliorer vos performances sans dopage

1 **L'entraînement :** c'est la base de toute pratique sportive. Sans entraînement, on ne peut maintenir son organisme en situation de réaliser l'activité que l'on souhaite pratiquer. On ne peut pas non plus progresser dans ses performances. L'entraînement doit être adapté à chaque personne, en modulant l'intensité, le volume et la répétition des activités physiques.

2 **La récupération :** elle est tout aussi essentielle. Sinon, l'organisme se fatigue à l'excès et il devient moins performant. La récupération repose sur l'alternance « travail – repos » qui doit respecté le rythme entre l'éveil et le sommeil. Les techniques de relaxation, le stretching (méthode basée sur des étirements) et l'hydratation favorisent la récupération.

3 **L'hygiène de vie :** pratiquer un sport suppose une hygiène de vie adaptée. Celle-ci nécessite de respecter ses rythmes biologiques. Par ailleurs, chaque sportif sait combien l'alimentation est importante. Il est donc essentiel d'adopter de bonnes habitudes alimentaires.

4 **Le suivi médical :** il est très important d'être suivi sur le plan médical très régulièrement.
Le médecin doit pouvoir ainsi s'assurer de vos aptitudes à votre activité sportive, tout à la fois sur le plan médical, biologique et psychologique. La relation engagée avec le médecin doit permettre de mettre sur pied une véritable « stratégie de santé ».

5 **Le travail d'équipe :** dans le cyclisme, la performance est le fruit du travail de toute une équipe.
Vous le savez, auprès de vous intervient l'entraîneur, le préparateur physique, le kinésithérapeute, le psychologue et le médecin. Il est important que chacun exerce ses talents dans le respect des autres et des règles. C'est comme cela que les équipes gagnent !

Docteur Christian BENEZIS, Médecin du sport, Montpellier
« Pass-Président » de la Société Française de Médecine du Sport

Photos : J.-C. Moreau - B. Bade - ASO

Appendix 10: Tour de France Code of Ethics

>> Le code éthique du Tour de France 2008

Le **Tour de France** possède en propre des valeurs sans lesquelles il perdrait non seulement sa crédibilité sportive, mais encore son indiscutable fonction culturelle, économique et sociale.

Ces valeurs de référence conservent une signification à travers le temps, tout en prenant en compte les notions de compétition, d'affrontement, de dépassement et en finalité l'objectif majeur de victoire.

Mais il ne peut s'agir ni de n'importe quelle compétition, ni de victoire obtenue à n'importe quel prix.

Comme toutes les activités sportives, comme les autres épreuves cyclistes et davantage encore parce qu'il est la plus prestigieuse de toutes, le Tour de France doit donc s'accompagner :

- **De règles précises, dont ni la lettre ni l'esprit ne doivent être transgressés.**
- **Du respect des officiels chargés de l'application de ces règles et des décisions qu'ils peuvent être amenés à prendre.**
- **De l'égalité des chances offertes aux concurrents. L'avantage accordé à l'un d'entre eux d'une manière illicite est contraire à l'éthique sportive. C'est en ce sens que le dopage, trop souvent présent dans l'activité sociale ordinaire, est inadmissible en sport.**
- **D'une action rigoureuse menée contre la tricherie, la corruption et toute forme d'arrangement permettant de vaincre autrement que par les moyens du sport.**

L'acceptation de ces principes conditionne l'estime et la popularité qu'accorde au Tour de France un public nourri par une longue période d'exploits et de légende.

Les champions d'aujourd'hui ont en héritage un patrimoine qui ne saurait aller sans les vertus morales qui ont contribué à le forger.
Tout coureur cycliste, quels que soient la place qu'il occupe et le niveau de ses performances, est par conséquent tenu de respecter cette éthique fondamentale. A défaut, il risquerait de conduire son sport vers la perversion et la décadence.

4