

Coronavirus Pandemic

COVID-19, indications for professional football teams and referees training resumption

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Abstract

These indications were drawn up by the Federal Medical-Scientific Commission (FIGC Commission), supplemented for the necessary time by some experts on the subject; currently they are intended to grant the highest achievable guarantee level to protect the health of players, referees and all professionals involved in case of resumption of collective training (Document dated 18 April 2020). They were designed to minimize the risk of contagion were thus based on the fact that during that phase of SARS-COV-2 virus pandemic (COVID-19) and in the absence of an effective vaccine, the zero-contagion risk did not exist and does not exist to date. Those guidelines have been updated on the basis of ongoing medical-scientific evidence, taking into account the indications given by the Technical-Scientific Committee and the opinion of the Italian Football Federation representatives, during a meeting that took place on May 7 and was transmitted to FIGC on May 11, 2020; these indications are to be considered stringent and binding for the purposes of sport training resumption.

Key words: COVID-19; infection; prevention; football; protocol; referees.

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General indications

The day for the resumption of group training for professional teams and referees has been established in Italy as May 18, 2020. Each sport club will have to indicate through this document the site to resume collective training and annexed facilities (Sport Centres, Sport Field/s, gym/s, health facility, restaurant, warehouse, meeting room, etc.). For further clarification, please note that the place might be the sport centre/guesthouse owned by the company; alternatively, it indicates the whole hotel, training ground(s), gym(s), identified by the company to be exclusively used by the Team Group.

The sports club must ensure daily cleaning and periodic sanitization of the premises, facilities, workstations as well as common and leisure areas, together with the adequate ventilation of the premises according to the provisions of the Ministry of Health, Circular numb. 5443/22, February 2020, and in compliance with what foreseen in the most recent version of the “Guidelines pursuant to art. 1, letters f and g of the Decree of the President of the Council of Ministers, April 26, 2020. Methods of carrying out

training for individual sports” (pages 12-14: Cleaning and sanitizing places and equipment in sport sites) [1]. Similarly, following the aforementioned provisions of the law, each Sport Club will have to provide with individual protection devices all the medical staff members assigned to the preliminary assessment and clinical surveillance of the team group and all the support staff (see Use of contagion prevention devices, pages 11 and 12 of the same Guidelines). Likewise, following the aforementioned legal provisions, it must be taken into account the assessment of the psychological and motivational profiles for the protection of the mental/psychological health in the new working environment (see pages 14-15 of the same guidelines) [1].

The sports club will have to identify the Team Group by adopting the medical screening procedures (subsequently indicated) in an absolutely safe manner avoiding any gathering at this preliminary stage.

The Team Group is meant to indicate all subjects who during the resumption phase will necessarily have to operate and will work close to each other: footballers, coaches, masseurs, physiotherapists, warehouse

Table 1. Test monitoring program.

72/96 hours	D 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
T	T S				T				T				T		S		T

T = coronavirus swab (performed every 4 days); S = Serological test (performed every 2 weeks); h = hours; D = days.

workers, other staff members, etc. and, of course, the Team Doctor(s). In this phase, the group must be reasonably limited in number just to people essential to ensure a resumption of collective training in maximum safety and efficacy.

All this with the aim of "creating a group that is medically consistent with the indications already provided by the Technical-Scientific Committee (TSC) regarding measures for epidemic containment".

The initial medical screening procedures will be applied to individuals holding an Italian Football Federation (FIGC) Health Card in accordance with the Italian Sports Medicine Federation (FMSI) Protocol for the resumption of sports activity of professional athletes. All Athletes are required to hold a valid fitness certificate for agonistic sport (Ministerial Decree 18/02/82) all requirements pursuant to Law 23/03/81 n.91 must be complied with [1].

Subjects holding FIGC Health Card are divided into two groups

1. Individuals who tested positive to COVID-19 and were cured and subjects who based on the judgment of the Healthcare Manager had referable symptoms including, but not limited to: body temperature > 37.5 °C, cough, fatigue, dyspnoea, myalgia, diarrhoea, anosmia, ageusia.

2. Individual who tested negative to COVID-19 and asymptomatic subjects (not tested), including individuals who had been in contact with positive patients but always remained asymptomatic and untested. In addition to the latter: members of the technical staff and Team staff or family members.

All subjects will undergo

- Clinical examination carried out by the Healthcare Manager, specialized in Sports Medicine;

- Research of viral RNA (swabs or other validated rapid test) at 72/96 hours prior to the beginning of group training and also at Time 0 for collective activities. The swab will be repeated every 4 days. The serological test for IgG/IgM/[IgA] research will be carried out at Time0 and will be repeated every 14 days (Table 1).

Negative RNA subjects are subjected to IgG/IgM/[IgA] tests (venous sampling).

If individuals are tested IgG positive and IgM/[IgA]negative, they have probably contracted the

disease and will be tested as for Group 1 (COVID-positive).If they are shown to be IgG-positive and IgM/[IgA]positive, they will have to undergo Group 1 tests (COVID-positive subjects).If IgG/IgM/[IgA] results are negative, they will have to undergo viral RNA test (swab or other validated rapid test) every 4 days and tests planned for Group 2 (COVID-negative subjects) [2,3].

Positive RNA subjects are infected and follow the normal COVID-positive procedures foreseen by the competent authorities.

Group 1 (COVID-19 positive) will undergo

- Maximal stress test with pulmonary evaluation (cardio pulmonary test) and O₂ saturation at rest, during and after exertion;

- Color Doppler echocardiogram;

- ECG Holter 24hr. Including a training or effort session;

- Full Spirometry Exam;

- Blood chemistry tests Blood chemistry tests: CBC, ALT/AST, Gamma GT, Creatininemia, CPK isotypes, Troponin, LDH, PT/PTT, INR, Protein Electrophoresis, D-dimer, PCR, Ferritin, Complete urine test);

- Pulmonary radiology: CT scan for COVID-positive: recommended and based on the opinion of the doctor in charge;

- Infectious disease clearance at recovery (for COVID-positive athletes).

Covid-positive subjects must observe an individual period of gradual recovery in the following 15 days, before gradually starting training under the careful supervision of the healthcare manager, who based on his judgement will be able to prescribe extra tests and diagnostic exams.

Tests required to Group 2 athletes (COVID- 19 negative)

- Maximal stress test;

- Color Doppler echocardiogram;

- Full Spirometry Exam;

- Blood chemistry tests (blood chemistry tests: CBC, ALT/AST, Gamma GT, Creatininemia, CPK isotypes, Troponin, LDH, PT/PTT, INR, Protein Electrophoresis, D-dimer, PCR, Ferritin, Complete urine test).

A further specification: if test result is positive for IgG and negative for IgM (with negative swab) it means that tested individual contracted the virus in the past months and developed antibodies. So these subjects can resume, but they must be considered members of Group 1.

If they are IgM/[IgA] positive, they must undergo a new viral RNA test (swab or other validated rapid test) [4-6].

The other subjects in the Group (doctors, physiotherapists, massage therapists, people in charge on the warehouse and other staff members) will undergo a molecular test at 72-96 hours before the day of collective training, the molecular test at Time 0 and every 4 days. They will also undergo zero-time serological tests and every 14 days.

In compliance with the guidelines formulated by the TSC, it should be noted that the supply of molecular tests for people interested in the resumption of team training "must not have the slightest impact on the availability of reagents for samples to be processed during Covid-19 screening and tracing activities by local healthcare facilities", and costs are entirely charged on each Club. In order to minimize operational difficulties related to reagent provisions in some specific areas and to standardize the tests procedures without prejudice to the activities carried out by individual teams, the Football League will act to identify authorized laboratories, examination criteria and timely transmission of reports to a third unit; this activity will be carried out in order to guarantee coordination and prompt communication, in compliance with provisions highlighted in the previous paragraph [5-6].

The task assigned to the healthcare manager/ club doctor/team doctor and to the competent doctor (for athletes who do not have a FIGC Health Card) is to monitor the group, subjecting it to constant clinical evaluation with daily control of temperature and others symptoms (even though febrile symptoms are not always shown by Covid-19 positive patients).

The aforementioned doctors must give indications to all group members on the behaviour to be adopted in the changing room, massage room, technical meeting, dining room, etc.; for aspects not expressly reported by this summary document, they will have to follow indications contained in paragraph 12 of the aforementioned "Guidelines pursuant to art. 1, letters f and g of the Decree of the President of the Council of Ministers, April 26, 2020. Methods for carrying out training for individual sports" entitled: Health Surveillance pursuant to Legislative Decree 81/08 and

Health Protection in the sports sector and monitoring" [1].

Training sessions

In the initial phase, the coach and the technical staff will always wear a mask and will keep a minimum distance of at least 2 meters from each other. Subjects belonging to the team group must reach the training site and return to their home at the end of the training by their own means and respecting the anti-contagion measures. Hiring professional drivers should be avoided as much as possible. All subjects must be equipped with Personal Protective Equipment.

The club must set up a temperature control station (remote thermal scanner) and place an oximeter at the entrance of the training site, to be disinfected after each use; medical staff in charge must be equipped with the appropriate PPE; isolation procedures should be adopted moving athletes in two separate rooms in case of detection of body temperature > 37.5 °C. The person identified with body temperature > 37.5 °C must immediately return home and will be assisted in compliance with Ministry of Health Guidelines for Covid-19 cases detection. The subjects must follow a differentiated entry and exit path to access the training site.

Gym sessions, must continue to be reduced to the essential, favouring physical training outdoors, at least for the first week of training. Furthermore, when performed they must be programmed in such a way as to limit the number of players during training, alternating them, and positioning the gym machines/equipment at at least 2 metres away from each other, possibly outdoors or in a well-ventilated area or with forced ventilation, ensuring maximum hygiene of the instruments.

It is always important to remember to carefully identify the technical staff members who take part to sessions in addition to the players should be limited at each stage to the strictly indispensable number of one member. After confirming the negative status of the group members, after the negative result of the third swab, the technical staff will not be requested to wear protective masks.

In the changing rooms, the distancing of the players of at least 2 metres must be guaranteed. If this is not possible, the entrance must be staggered to allow correct distances. The shower environment, rich in water vapor, could favour the spread of the virus (aerosol). For this reason, at least during the first week, athletes cannot have showers at the training site. As for the use of the medical room, massages, physiotherapy,

the sessions, at least in the first week, they must be scheduled under the coordination of the club doctor and limited to real needs. The areas must be organised to guarantee distance of at least 2 metres between them and they must be equipped with disposable materials and the physiotherapy equipment/machinery must be sanitized after each session. It is recommended to avoid gatherings while waiting for treatments and that health workers wear the mask, gloves and protective glasses and surgical mask are worn by players.

Common areas

At least in the first week, it is recommended to avoid internal meetings if not strictly essential. When it is necessary/urgent to organize them, participation must be minimized and an interpersonal distance of at least 2 metres must be guaranteed. These should preferably be held outdoor and/or well-ventilated spaces. In any case, the use of telematic platforms for business meetings should be favoured.

Access to the restaurant area must be based on small groups, ensuring continuous ventilation of the premises and a reduced amount of time inside the room itself, with the maintenance of a safety distance of at least 2 meters between people. Meals must be served through self-service and contact with restaurant staff, who must wear a mask and gloves, should be avoided. Hand washing is mandatory before arrival in the room, where disinfectant hydro-alcoholic solutions must be available. Recreation should not be allowed in bars, game rooms, etc.

Specific situations

People coming from abroad or from areas with outbreaks of infection and who will join the group, will comply with the regulations in force before the resumption of collective training.

Adequate precautions must be adopted in the event that a player needs to go to an external diagnostic facility for examinations deemed indispensable (*e.g.* magnetic resonance for osteoarticular or muscular injuries). Only one person/driver is allowed and he/she should be the club doctor or a person delegated by the same, belonging to the team group. Both the footballer and the other person must be equipped with adequate PPE. The Company must ask the diagnostic facility in advance to observe maximum safety at the time of the arrival of the player and the doctor to the facility and while performing the examination.

If during the period of group training resumption a case of COVID-19 positivity is diagnosed, immediate isolation of the person concerned must be guaranteed.

In addition, general cleaning/sanitation must be ensured in accordance with provisions of circular numb. 5443-22 February 2020 of the Ministry of Health. Tracing of positive patient further contacts will be based on National Health System prescriptions.

From that moment, all the other team group members will be subjected to fiduciary isolation in a specific facility; they will undergo a careful clinical evaluation under the continuous supervision of the club doctor; they will undergo a swab (or also rapid test) every 48 hours for 2 weeks, in addition to serological tests to be carried out for the first time after an ascertained positive case and to be repeated after ten days, or according to further indications given by TSC. No member of the aforementioned team group may have external contacts, while allowing the isolated group to continue training.

Management of the Sports Centres

The Sport Club must carry out an accurate analysis of the activities carried out by identifying the essential ones and drawing up a list of people who can be admitted to the training site. Non-essential activities (*e.g.* administrative tasks) must be postponed or carried out through smart working to limit access to the training site only to the team group and to the most important support workers (cooks, waiters, cleaners, etc.). These workers must be subjected to a molecular test with an 8-days frequency. All activities must be organized in such a way as to guarantee social distancing (at least 2 metres), even in open spaces. If activities require working at an interpersonal distance of less than 2 metres and there are no other solutions, the use of masks is mandatory.

Movement within the training site must be limited to the essential and in compliance with indications given by the Club. The participation of employees to meetings is suspended with the exception of the most important ones. The use of online platforms for meetings with external subjects (*e.g.* press conferences) must be promoted. All internal events and all training activities should be suspended and cancelled.

In the changing rooms, the staff in charge on sports materials must carefully keep in separate rooms clean and dirty items. All members of the team group and any other person are prohibited from entering the premises intended for employees in charge on sports materials. The distribution of the clean items and the withdrawal of the dirty items will take place in an absolutely distinct way with spatially and temporally separated paths.

Sport staff should always wear PPE (gloves and masks). According to the dirty/clean path, the PPE must be replaced based on specific procedures. Careful hand hygiene is constantly recommended. An interpersonal distance between operators of at least 2 metres must also be constantly maintained in the arrangement of sports materials on the training ground.

Other staff members

This term includes all those who work at different times and are not in direct contact with the team group (field maintenance workers, sanitisers, etc.). These operators will not be subjected to initial screening for the identification of a possible COVID-19 infection, but will have to comply with obligations established by current and future regulations.

With regard to ANTI-Doping, the FMSI procedures already transmitted to Italy National Anti-Doping Organization (NADO-Italy) and to Section for the supervision and control of doping and for the protection of health in sports activities of the Italian Ministry of Health (SVD), are transposed as regards the performance in compliance with World Anti-Doping Agency (WADA) COVID-19 Guidelines of the anti-doping activity carried out by its medical inspectors (DCO/BCO).

The sports club ensures that, as a rule, no person outside the team group can access to the training site without a specific reason. In case of proven and essential need it will be possible to access to the place through a filter area, with measurement of body temperature, wearing masks and gloves, keeping social distance and for a limited time.

Other staff members different from the team group admitted to the training site have the obligation to:

- wear masks and gloves during the service provided and in any case during the stay at the training site.
- Have the obligation to stay at home in case of temperature over 37.5 ° and/ or other flu, flu-like or otherwise suspected symptoms (headache, anosmia, etc.). They should immediately inform family doctor, the Health Authority and the club/competent doctor in charge.
- If the above symptoms appear during working hours, they are requested to stay in an isolated room and in any case keep a distance of at least 2 metres from colleagues, immediately informing the club doctor/competent doctor and strictly follow instructions that will be received.
- It is compulsory to stay at home for subjects who know that have been in contact with a person diagnosed

with Covid-19 over the 14 days period before the disease was diagnosed. If this occurs, the subject must immediately inform the family doctor, Health Authority, employer and the club doctor/competent doctor.

- Each person is asked to respect all the provisions from the Club, from the employer regarding safety at the workplace, even when traveling as well as during the stay in the training site (especially maintaining the safety distance, observing the rules of hand hygiene and adopting correct hygiene practises).

- It will be club responsibility to ensure that the employer has informed all workers involved, in any way, on prevention measures at the work place and on the objective of these provisions as far as they are applicable to them.

- He/she is committed to comply with all provisions of the Health Authorities outside the training site.

Supplier access

For the access of external suppliers, entry, transit and exit procedures must be identified with predefined methods, routes and times, in order to reduce the opportunities for contact with staff staying at the training site.

If possible, drivers of trucks in charge for delivery must remain on board. During loading/unloading procedures, if needed, the transporter must keep a distance of at least 2 metres from the personnel usually operating at the training site.

For suppliers/transporters and/or other external personnel it is necessary to identify/install dedicated toilets, provide for a ban on the use of toilets used by the personnel working at the training site, ensuring adequate daily cleaning.

If in one or more people at the training place suddenly show symptoms related or suspicious for a COVID-19 infection they must isolate themselves in a well-ventilated room that must remain closed, without anyone being able to access except from the emergency teams and staff members in charge on safety procedure appointed by the Club, who must be equipped with the specific PPE foreseen for these situations and must in any case limit close contact as much as possible until the arrival of the public emergency service.

Rules adopted by the rest of the world and amateurs.

Each Country that issued regulations related to professional teams training resumption (Italy, Spain, Germany, France, etc) indicated specific changes to the protocol in relation to Covid-19 infection rate reported

during a specific period in the country and in general. Spanish and German protocols are similar to the Italian protocol, requiring the isolation of the positive player alone and not of the whole team.

As far as amateurs are concerned, it is not possible to apply such a protocol to them *sic et simpliciter*, as it is designed to be applied to professional teams and it implies very high costs.

Furthermore, in Italy, as in other countries, it is compulsory for the athlete to be submitted to a physical examination by a sport doctor before the beginning of the championship; in the case of an athlete who had been previously reported as positive to Covid-19, extra diagnostic exams will be added to this examination, such as a heart scan Holter, blood tests.

The highest importance is given to respecting hygiene practices and health regulations published, such as in the “Indications to avoid Covid-19 spread and examples of good practices” issued by FMSI; on the other hand, it is crucial to pay attention to the way training activities will be organized; they should be resumed gradually and progressively, taking into consideration the long period of inactivity of athletes as well as the physiological and psycho-neuroendocrine balance related to the resumption: a careful redefinition of workload should be re-assessed especially for young athletes in the developing age. For amateurs, rules will be drawn by the Medical-scientific Commission aiming at appointing a person in charge on prevention measures who will have the task to check the correct implementation of ordinary and extraordinary prevention practices; such a role will not have to be assigned to a doctor as the latter does not always exist in amateur sport teams.

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