BIOLOGICAL RISK ASSESSMENT DOCUMENT FOR CORONAVIRUS (COVID-19) IN BRIDGE ACTIVITIES

Assessment of the risks for the health and safety of bridge players during international championships and the appropriate operational procedures to be adopted

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1) INTRODUCTION

a) This document has been prepared in order to provide indications and mitigation actions that come into play when resuming international bridge sports activities following the lockdown for the Covid-19 emergency. Indications and mitigation actions will be formulated depending on the features of this sporting activity. They are aimed at sports operators (players, match officials and organisation staff). The indications given here are intended to be temporary and strictly related to the emergency phase, although some of them may also be useful once the emergency is over.
b) All parties concerned will be required to fully comply with and apply the safety measures set out in this document, and therefore the PPE, safety measures and precautions contained herein are to be considered mandatory, to be used correctly and continuously as long as considerable risk conditions remain. The document will therefore be communicated to everyone, players and technical and managerial staff, as appropriate. Failure to comply with the established rules will result in disqualification and exclusion from competitions for players and administrative sanctions for those in the organisation who fail to comply.

c) In order to ensure its adequacy and effectiveness over time, this document must be reviewed periodically every six months, or whenever new evidences emerges that may change the perception of risks in the places where the competitions are held, or when changes are made to the organisation or in case of contagion.

2) RISK OVERVIEW OF CONTAGION TRANSMISSION

2.1- COVID-19

Coronaviruses (CoV-2) are a large family of respiratory viruses that can cause mild to moderate disease. Other human coronaviruses deriving from animals (zoonotic viruses) have been responsible for outbreaks of severe respiratory syndromes in the last twenty years: SARS in 2002/2003 (severe acute respiratory syndrome) and MERS in 2012 (Middle East respiratory syndrome). They are called “coronavirus” because of the crown-shaped tips on their surface.

Coronaviruses are common in many animal species (both domestic and wild) and it is now clearly demonstrated that through their natural reservoir, bats can pass viruses to infect humans from other animal species. This spillover has unfortunately occurred quite frequently in recent years. The conditions that allow this spillover between species are often seen in China, where many farms usually breed several animal species together, including bats, which are bred and slaughtered in places with very poor sanitary conditions. In these places and under these conditions the viruses may adapt to humans; if
transmission among humans is easily developed the risk of epidemic outbreak becomes likely, and may evolve to a pandemic due to globalisation. In 2002, the SARS epidemic was caused by the SARS-CoV-1 virus and in 2012 the MERS epidemic was caused by MERS-CoV virus, both belonging to the Coronaviridae family, genus beta.

In December 2019, a new zoonotic human coronavirus responsible for severe inflammatory pulmonary diseases linked to SARS was identified in Wuhan, China.

In the first half of February, the International Committee on Taxonomy of Viruses (ICTV), which deals with designating and naming viruses (i.e. species, genus, family, etc.), assigned the new coronavirus its final name: "Severe acute respiratory coronavirus 2 syndrome" (SARS-CoV-2). The new name was given by a group of experts specially commissioned to study the new coronavirus strain. According to this pool of scientists, the new coronavirus is very similar to the one that caused Sars in 2002 (SARS-CoVs), hence the chosen name of SARS-CoV-2. SARS-CoV2, like SARS-CoV, is a zoonotic infection caused by bats.

In the first half of February 2020 (11 February) the World Health Organization (WHO) announced that the respiratory disease caused by the new coronavirus was called COVID-19. The new abbreviation is a summary of the terms COrona VIrus D-isease and the year of identification, 2019.

2.2 Symptoms

The most common symptoms of a coronavirus infection in humans include a fever, cough and difficulty breathing. In the most severe cases, the infection can cause pneumonia, acute respiratory distress syndrome (ARDS), kidney failure, and even death. Common human coronaviruses usually cause mild to moderate upper respiratory tract diseases, similar to the common cold, which last for a short period of time. Symptoms may include:

- rhinorrhea (runny nose)
- headache
- pharyngitis (inflamed throat)
- fever
- general feeling of malaise.
Like other respiratory diseases, the new coronavirus infection can cause mild symptoms such as rhinitis (cold), pharyngitis (sore throat), cough and fever, or more severe symptoms such as pneumonia with very severe breathing difficulties. A common finding is the presence of anosmia (decrease/loss of smell) and ageusia (decrease/loss of taste), which seem to be features of many clinical pictures.

In some cases the infection can be fatal. **The people most susceptible to serious forms are the elderly and those with pre-existing diseases:** in Italy, the Italian National Institute of Health (Istituto Superiore di Sanità -ISS) reported, as of April 2, 2020 [note: https://www.epicentro.iss.it/coronavirus/bollettino/ReportCOVID-2019_2_aprile.pdf], that the most frequent pre-existing diseases in deceased individuals were cardiovascular diseases, arterial hypertension, type 2 diabetes mellitus and chronic respiratory diseases, such as chronic obstructive pulmonary disease.

To date, the median age of symptomatic individual is 62, for deceased individuals, it is 78 years (interquartile difference 73-85 years). The distribution of cases according to gender is 31.4% for women and 69.6% for men.

Since the symptoms caused by the new coronavirus are non-specific and similar to those of the common cold and influenza virus, laboratory tests can be performed to confirm the diagnosis if suspected.

The laboratory test that seems to show the best profiles of sensitivity and specificity, to date, is the nasopharyngeal swab with research of the virus by Real Time-PCR (RT-PCR).

It is important to reiterate that the usefulness of this approach is epidemiological if it is addressed to population studies or, in the professional field, to assess the suitability to resume work after infection.

In clinical settings, the test is obviously needed for a correct differential diagnosis, but it is to be stressed that it is not correct to attribute a preventive value to this method, because the positive result is a function of different possible exposure conditions, perhaps even immediately following a negative result on a previous swab.

However, according to the WHO "although the use of commercial rapid virological diagnostics kits is desirable and is a necessity in emergency situations such as the current one, the technically most advantageous, reliable and available diagnostic approaches remain those based on virus detection in respiratory secretions by RT-
PCR methods for amplification of viral genes expressed during the SARS-CoV-2 infection.

2.3 Transmission

The new coronavirus is a respiratory virus that is mainly spread through contact with droplets of breath expelled by infected people through, for example:
- saliva, coughing, sneezing or just talking;
- direct personal contact;
- hands, for example, by touching the mouth, nose or eyes with contaminated hands.

**The virus is highly contagious.**

In rare cases the infection can occur through faecal contamination.

**Droplets normally do not manage to travel more than one meter before falling to the ground, which is why a distance of one meter is considered sufficient to prevent transmission.**

The study of droplet size emitted by a subject when coughing showed that the entire particle distribution of the droplet is between 0.5 and 16 microns, with a multimodal distribution with peaks of 1, 2 and 8 microns. The smaller particles, with little momentum, leave with greater difficulty and in the performance of indoor or outdoor sport, the air displacement caused by athletes and / or its placement in their wake, can facilitate the droplet contamination over longer distances than the canonical 1-1.5 m of suggested social distance. In these circumstances, the stronger the wind seems, the greater the distance required to ensure safety conditions.

Respiratory diseases are not normally transmitted through food, but it must be handled in accordance with good hygiene practices.

2.4 Transmission mechanisms

According to currently available data, symptomatic people are the most frequent cause of virus spread. The WHO considers infection with a new coronavirus to be infrequent before symptoms develop, although there are numerous observations of transmission of the infection in the two days prior to the onset of symptoms.
The incubation period varies between 2 and 12 days; 14 days is the maximum precautionary limit.

The most frequent route of transmission is the respiratory route, secondly from surfaces contaminated by hands and subsequent contact with the oral, nasal and conjunctiva mucous membranes.

2.5 Treatment - Vaccination

In the current state of scientific knowledge, there is no specific treatment for the disease caused by the new coronavirus and no vaccines are currently available to protect against the virus. Taking into account the timing of preclinical testing on animals and non-human primates, phase 1 and 2 human safety studies, and phase 3 efficacy studies, a vaccine cannot be expected to be available before 2021.

The treatment is based on the patient's symptoms and respiratory support therapy can be very effective. Specific therapies are being studied. Currently, protocols mainly including drugs such as hydroxychloroquine, antivirals, antimonoclonal antibodies are mainly applied. No consolidated scientific information on their effectiveness is available yet.

2.6 Epidemic in progress

On 30 January 2020 the WHO declared the outbreak of Coronavirus in China an international public health emergency. The WHO raised the threat of the coronavirus epidemic to a "very high" world level on 28 February 2020.

On 11 March 2020, WHO Director-General Tedros Adhanom Ghebreyesus said the spread of Covid-19 was no longer an epidemic confined to certain geographical areas, but a pandemic spread throughout the planet.

On 13 March, the WHO declared that Europe is becoming the new epicentre of the pandemic.

The risk of serious disease associated with the COVID-19 infection for people in Europe (EU/EEA and UK) is currently considered moderate for the general population and high
for the elderly and people with chronic underlying diseases. In addition, the risk of milder diseases and the resulting impact on social and work activities are considered to be high. The number of COVID-19 cases has increased very rapidly. Clusters associated with COVID-19, similar to those in Italy, are currently developing in other European countries, and the risk of exceeding the response capacity of health systems is high. Although these data vary depending on the use of swabs in the non-patient population, it can be estimated that patients have a severity that requires hospitalisation in about 25% of cases, 4% require treatment in intensive care, and lethality is around 10% of patients (Italian ISS Report, April 3, 2020). The median age of positive cases, 62 years, and the relevance of risk factors such as male sex, the presence of chronic diseases and tobacco smoking remain constant.

3) CRITERIA ADOPTED IN THE RISK ASSESSMENT
The criteria used for the assessment of the risk of transmission of epidemiological contagion in the bridge-sport environment due to the presence of COVID-19 are mainly determined by:

(a) Identification of the risk factors associated with higher severity of the disease caused by the virus
(b) Identification of the mechanisms of virus transmission reported in the scientific literature. In this sense it is well known, as an input for the evaluation, that the transmission takes place both by air and by contact.
(c) Identification of the expected sources of possible contagion within sport sites which we may have an impact on the organisation of places, work, practice or assistance by accompanying persons.
(d) Qualitative identification of the probability of transmission following contact between sports operators.

As a result of the risk assessment, a set of prevention and protection tools for risk management is proposed.

Assuming, for the purposes of this analysis, that the World Health Organization classifies the epidemic as a "pandemic", placing it, at this
moment, in a "high" level of severity, it is specified that the risk assessment will have to be updated according to the general epidemic evolution and, coherently, will have to evaluate the relative measures of prevention and protection of contagion containment.

3.1) The assessment has been carried out taking the following elements into account:

   a) Players and operational staff
   b) Features of game environments
   c) Potentially exposed subjects
   d) Analysis of protective measures
   e) Risk assessment
   f) Consideration of health risks due to cross-cutting factors
      (type of tournaments, ergonomic and environmental factors, etc.)
   g) Probability of a harmful event occurring
   h) Possible effects due to the harmful event
   i) Definition of protective measures
   j) Reduction of risks that cannot be eliminated
   k) Programme of measures to be implemented
   l) Evaluation of the effectiveness of the safety measures put in place
   m) Periodic review in case of changes

3.2) Identification of exposure risks

   (a) Overview of potential risk factors
   (b) Safety measures to be taken: training, information,
   (c) Personal protective equipment, safety operating procedures (distancing, sanitation, etc.)
   (d) Health surveillance

3.3) Estimation of exposure risks

   (a) Verification of the acceptability of the hygiene and environmental conditions for the protection of players and staff in the organisation
   (b) Measurement of risk parameters
(c) Formulation of an integrated programme of safety measures, given the exposure risks

3.4) **Characteristics required for game environments**

(a) Washable smooth floors and walls
(b) Play tables and equipment that can be washed and sanitised
(c) Adequate air exchange in playing venues
   (better if done naturally than artificially by air conditioning)
(d) Appropriate hygiene standards for everyone (players and organisational staff)
(e) Availability and proper use of PPE suitable for biological risk protection

3.5) **Training and Information**

Training and information must be provided to all parties concerned (players, operational staff, etc.) in a detailed and comprehensive manner, with periodic updates if necessary.

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On the basis of all the above mentioned criteria and the characteristics of international bridge tournaments, as well as the high average age of the players (Youth Tournaments aside) which exposes them to more serious consequences of a possible contagion, it is considered that the risk from biological agents such as Covid-19 should be classified as "Moderate" (for example between 1 and 2, considering the classification adopted by CONI for sports activities ranging from 0 to 4)

**OPERATIONAL PROTOCOL FOR BRIDGE ACTIVITIES**

1) An information sheet - with self-certification and statements of any symptoms, recent exposure, etc. – will be compiled and given or sent to the WBF Medical and Prevention Commission for anyone authorised to enter the venue. Players, captains, coaches, team managers, representatives of Federations and accompanying persons will have to return the form 24 hours before the Tournament start date. The organisers, officers and
operators in charge of supervising, organising, and setting up and running the event must return the form 24 hours before the day that they first access the venue. Spectators admitted to the venue will be requested to fill out the mandatory information form and hand it over to the on-site representative of the Medical and Prevention Commission.

2) All the rooms used for the competitions must be properly sanitised every day with appropriate disinfectant agents, while the game tables and tools and any furniture must be sanitised at the end of each play session and in any case before the start of the next one.

The same rooms must be ventilated, by circulating fresh air, at the end of each session. In the case of environments where air is supplied by air conditioning systems, these must be carefully maintained with special sanitation procedures regularly performed on the filters.

3) Before entering the venue, all those who are authorised must have their body temperature measured on the forehead with laser thermal detection equipment. If a temperature above 37.5 degrees Celsius is detected, the individual is not allowed access.

4) Separate and restricted accesses and exits to the Tournament premises will be defined, with appropriate physical and temporal distances.

5) Social distancing (at least one metre) will always be encouraged in the areas adjacent to the playing area (corridors, recording areas, results control and in any case entertainment) and in the operational areas (secretariat, offices, etc.)

6) Everyone who is authorised to access the venue must use appropriate individual PPEs (Personal Protective Equipment):
   a) Masks for protection against medium toxicity dust, fibres and water-based aerosols of particle material $\geq 0.02$ micron (type FFP2).
   b) Disposable latex or vinyl gloves, powder-free and with high resistance, elasticity and softness.

7) Use of play tables (1m x 1m) with a cross divider (preferably plexigas) in addition to the current screen, in order to create four separate spaces for
players, keeping the same visibility between the two opposing players on each side.

8) Spacing the play tables at least 4 metres from each other, with a space of at least 16 square metres for each table.

9) It is recommended to use individual tablet devices to avoid the use of cards and bidding-boxes, which could certainly lead to a rise in the risk of contamination. Adopting this system would also allow to avoid BBO operators at the table, reducing the number of people and therefore the risk of contagion.

When deciding to use the cards and bidding-boxes anyway, it is necessary to replace them or at least sanitise them after the end of each session, so that at the beginning of each session this equipment can be considered safe. In this case, the minimum distance of one metre should also be considered for the BBO operators.

Specifically for pair tournaments, within the current format of WBF competitions, which provides each table with the complete set of boards to be used in the session, the bidding-box must be assigned to all the players in the E-W line who are continuously changing tables. If tablets are used for each player in the E-W line, individual tablet devices need to be assigned.

10) Spectators and non-essential staff will be forbidden to enter or stay in the play rooms. In team matches, if Captains/Coaches are to be present, they must be equipped with appropriate PPE and respect safety distances.

11) The Tournament Director (or any other authority of the Tournament) called to the table must respect safety distances.

12) In the Vu-graph theatre hall, operators and spectators will have to be equipped with appropriate PPE and respect safety distances. The same criteria shall be adopted for meetings and conventions.

13) Considering the variability of the venues, periodically evaluate how to streamline toilet use, with precise access rules and multi-day sanitation.

14) All rooms will be equipped with hand sanitisers and disinfectants
15) The Championship Committee, in agreement with the Medical and Prevention Commission, will periodically put all the most appropriate measures in place (including those not mentioned here) in order to minimise the risk of contagion.

16) The Championship Committee is responsible for monitoring the implementation of technical-organisational rules and procedures, while the Medical and Prevention Commission is responsible for monitoring the implementation of the health standards provided periodically before a Championship.

Approved by the WBF Management Committee on May 25th 2020
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