

# **World Taekwondo Medical Code**

(in force as of December 5, 2019)

## **1 Adoption of the Olympic Movement Medical Code**

- 1.1. Effective as of April 6, 2018, the World Taekwondo (“WT”) adopts the Olympic Movement Medical Code in force from March 31, 2016. In accordance with the Olympic Movement Medical Code, the WT publishes this World Taekwondo Medical Code.
- 1.2. The Medical Code shall be updated periodically under the authority of the WT Anti-Doping & Medical Committee.
- 1.3. The WT requires that the medical control of WT Promoted and Recognised competitions be in conformity with the WT Medical Code and operated in close cooperation with the WT Anti-Doping & Medical Committee.
- 1.4. For the Olympic Games, the WT shall fully comply with the IOC Rules and Protocols.

## **2 WT Anti-Doping & Medical Committee**

- 2.1 The WT Anti-Doping & Medical Committee Chair (“MC Chair”) is ex-officio member of the Competition Supervisory Board (“CSB”) for each competition promoted by the WT. MC chair may designate a member of the WT Anti-Doping & Medical Committee or a WT Commissioned Doctor on the list of official WT Commissioned Doctors to replace him if necessary.
- 2.2 The MC Chair shall propose amendments to the WT Medical Code for approval by the WT Council.

## **3 Medical Guidelines for International Competitions**

- 3.1 Under Article 2 of the Olympic Movement Medical Code, each sports discipline should establish appropriate guidelines regarding the necessary medical support, depending on the nature of the sports activities and the level of competition. These guidelines should include the following points:
  - A. the level and scope of medical care provided at training and competition venues
  - B. Necessary resources, facilities, equipment and services (supplies, premises, vehicles, etc.)
  - C. the development of emergency plan for seriously ill or injured competitors and emergency health services to spectators
  - D. the information for teams, coaches and athletes on the processes and procedures in place in competition and training settings
  - E. the system of communication between and among the medical support services, the organizers, the relevant health authorities and local health care facilities

#### 4. Roles and Responsibilities at International Competitions

- 4.1 Before each WT promoted competition, the MC Chair shall hold a medical meeting with team doctors and venue medical team to review WT medical code, medical preparedness and emergency action plan for the competition.
- 4.2 Before each WT promoted or recognised competition, the MC Chair shall review and approve the credentials of the event's Official Medical Director ("OMD") at the venue. LOC must send credentials and resume of OMD candidates to MC Chair at least 4 months prior to the event and get the approval from MC Chair.
- 4.3 OMD and the MC Chair shall organise anti-doping training.
- 4.4 The MC Chair shall organize anti-doping controls with support of NADOs, RADOs or WADA.
- 4.5 The MC Chair shall monitor medical operation and anti-doping control by the medical staff of the Organizing Committees at WT promoted competitions.
- 4.6 Each WT promoted or recognised competition shall have an Official Medical Director ("OMD") and a Medical Operation Manager ("MOM") appointed by the event's organizer.
- 4.7 OMD is the lead of Venue Medical Team by LOC. OMD direct venue medical service. The following are requirements for the OMD:
  - A. OMD must speak English fluently.
  - B. OMD must have competency in emergency medicine, trauma medicine and sports medicine.
  - C. OMD is to report to the MC chair of the WT.
  - D. OMD must practice medicine in accordance with the principles of good conduct.
  - E. OMD must be compliant to WT medical code with full understanding of it and cooperative to MC chair in preparation of medical requirement before the competition begins. MC chair and OMD should start communicating each other at least one (1) month prior to the beginning of the competition.
  - F. OMD must be available from one (1) day before the event to meet with the WT MC chair to check the medical equipment, facility and emergency action plan at the venue.
  - G. OMD must be in charge of the training of venue medical staff, lead the venue medical team to provide venue medical service at least 2 days prior to the beginning of the event till the end of the competition.
  - H. OMD must educate and train venue medical team periodically before and during the competition under MC Chair's guidance and make sure venue medical team fully aware of WT medical code.
- 4.8 MOM (Medical Operation Manager) shall provide OMD with administrative assistance and support for
  - A. Preparing for necessary medical supplies before and during the event.

- B. Assisting OMD to arrange hospital transfer.
- C. Supporting the patient for medical insurance related issues by coordinating the communication between hospital, insurance company and the patient.
- D. Assisting OMD for coordinating venue medical service with venue medical team

#### 4.9 Competition Medical Commission and Commissioned Doctors

MC Chair shall assemble Competition Medical Commission before each WT promoted or sanctioned event begins. MC Chair shall select members of Competition Medical Commission for each event.

MC Chair, CU Medical and Anti-Doping Chair and OMD are ex-officio members of Competition Medical Commission.

For World Taekwondo Championships, World Taekwondo Junior Championships or World Cadet Championships, MC Chair can select a WT Medical Commissioner from WT commissioned doctor's list who shall assist MC Chair.

For G1, G2 and G4 events, MC Chair shall designate a CMD to function as a WT medical commissioner on behalf of MC Chair to supervise LOC venue medical team if MC Chair or CU anti-Doping and medical chair is not available.

MC Chair may appoint a qualified venue medical doctor as an assistant commissioned doctor for the competition who meets minimal qualification criteria for CMD and is recommended by OMD if needed.

Competition Medical Commission members shall serve as Commissioned Doctors ("CMD") for the event.

\* The following is the requirement for the CMD:

- A. CMD must be a medical doctor with competency in either sports medicine and/or emergency/trauma medicine who has an official WT CMD license or special recognition by WT. (\*note: CMD license program is currently under development).
- B. CMD must speak English fluently.
- C. CMD must practice medicine in accordance with the principles of good conduct.
- D. CMD is selected and appointed by MC Chair.
- E. CMD must be under the administrative control of MC chair (OMD must report to CMD if MC chair is not available).
- F. CMD must fully understand WT Medical Code and medical forms.
- G. CMD must be supervise venue medical team at the ringside medical station and venue medical room at the venue and monitor the competition at all times during the competition hours.
- H. CMD cannot concurrently function as a team doctor for his/her MNA on the same event

due to conflict of interest.

- I. CMD is entitled to
  - i. Be called into the competition court by central referee during the competition to evaluate and treat the injured athlete on the mat.
  - ii. Make a decision on “fit-to-fight” (whether injured athlete is safe to continue or not)
  - iii. Supervise venue medical team with safe evacuation of the injured athlete out of competition mat and transferring to either venue medical room or hospital.
  - iv. Perform in pre-competition medical evaluation for athletes and post-competition medical evaluation
  - v. Perform concussion evaluation for athletes with suspected concussion or significant head trauma.
  - vi. Fill out WT medical suspension form and athlete injury form (\*this is applicable to MC Chair, CU Chair, WT Medical Commissioner and OMD only)
  - vii. Inspect athlete’s taping, brace and mouthguard and give a direction to referees as requested by referees at inspection area.

## 5. Requirement for Medical Service and Resources

The LOC shall provide medical, physiotherapy and first aid services, facilities and personnel at the competition venue. See appendix III for details.

5.1 Each WT promoted or recognised competition shall have the following:

- A. Ambulance with full resuscitation equipment on standby at the venue during all training and competition hours.
- B. Venue medical room equipped with the following:
  - i. A desk, chairs and medical exam table, for medical examination
  - ii. Sphygmomanometer, thermometer, glucometer and pulse oximetry
  - iii. gloves
  - iv. stethoscope
  - v. medication:
    - ① sedatives
    - ② painkillers
    - ③ drugs for cardiac arrest per ALS guidelines
    - ④ splinting materials, arm sling and crutches for musculoskeletal injuries
  - vi. material and medicine necessary to manage any medical emergency
    - ① Oropharyngeal Airway
    - ② Monitoring Screen for vital signs
    - ③ Defibrillator (or AED)
    - ④ Oxygen mask cannula and oxygen tank
  - vii. ice cubes in a freezer or ice boxed
  - viii. drinkable water and IV fluid kit
- C. appropriate medical staff and medical equipment needed to care for the injured; this

includes as a minimum:

- i. for 3 courts or less 1 medical station
- ii. for 4 to 6 courts 2 medical stations
- iii. for 7 to 9 courts 3 medical stations

D. a medical station consists of the following:

- i. at least one medical doctor and at least two EMT and one registered nurse standby at all time (four (4) medical personnel per each medical station)
- ii. first-aid kit:
  - ① sphygmomanometer
  - ② flashlight (penlight)
  - ③ gloves
  - ④ material for wounds care and bleeding control
- iii. stretcher to be carried by four people and wheelchair
- iv. rigid cervical collars
- v. upper limb splints, lower limb splints
- vi. oropharyngeal airway and pocket mask
- vii. oxygen mask for manual ventilation with oxygen bottle
- viii. defibrillator
- ix. cold pad
- x. ice cubes
- xi. medication:
  - ① sedatives
  - ② painkillers
  - ③ drugs for cardiac arrest per current ALS guidelines

## 6. Procedures

### 6.1 Care for the competitors

The CMD (especially OMD) must provide competitors with proper first aid and medical care with the collaboration of team physician and venue medical team.

### 6.2 Evacuation of the injured

The OMD (or OC medical staff designated by OMD) must arrange an ambulance to transport the injured to the hospital designated by the Organizing Committee and report to MC Chair. Prior to transport, the medical staffs are to contact and notify the hospital of the transfer.

### 6.3 The Management of loss of consciousness or head trauma: See Appendix II

### 6.4 An Arbitration decision requiring a CMD

The Centre Referee may ask the CMD whether an injured competitor is medically fit to continue the competition.

### 6.5 Competition Medical Report

At the end of each day, the OMD must collect WT injury surveillance form and any other WT medical forms for the competition-related injuries and submit these forms to the MC chair.

## 7. Members

### 7.1 Continental Unions

A. Continental Unions (“CUs”) of the WT (see Article 19.3 of the WT Statutes) are to adopt the Medical Code of the Olympic Movement at continental level

- B. Continental Union Medical Chair (or CU Anti-Doping and Medical Chair) shall organize and lead CU Anti-Doping and Medical Committee which must consist of at least four (4) medical doctors within the CU.
- C. CU Anti-Doping and Medical Chair is in charge of anti-doping and medical matters of the pertinent CU in accordance with the related regulations and the WT.
- D. CU Anti-Doping and Medical Chair must attend official meeting organized by the WT Anti-Doping and Medical Chair at each World Taekwondo Championships, World Taekwondo Junior Championships, WT Taekwondo Medicine conferences and WT commissioned Doctor Certification/Recertification Courses. CU Anti-Doping and Medical Chair shall designate a CU medical committee member to represent the CU Anti-Doping and Medical Committee at the mandatory WT medical committee meeting.
- E. The CU Anti-Doping & Medical Chair shall be appointed as an ex-officio member of the CSB of the CU-promoted championships, and required to fully attend at least one (1) of CU-promoted championship at least once a year. CU Anti-Doping and Medical Chair must designate one of CU medical committee members for other CU-promoted championships that CU Anti-Doping & Medical Chair cannot attend.
- F. CU Anti-Doping and Medical Chair requested to submit a separate report on anti-doping and medical matters (in-competition doping tests, injury, etc.) after the end of the CU-promoted championships (within the two weeks following the conclusion of the competition) to WT MC Chair and WT Sport Department
- G. CU Anti-Doping and Medical Chair must report their educational, administrative and medical activities of their committee and its members to WT MC Chair at least once yearly.

## 7.2 Member National Associations

- A. Member National Associations (“MNAs”) of the WT are to implement the Medical Code of the Olympic Movement at national level.
- H. Each MNA should maintain a national (MNA) medical committee presided by a chairperson appointed by the MNA president. MNA Medical Committee must have at least three (3) qualified medical doctors
  - i. The MNA Medical Committee draws up the national medical code in conformity with the Medical Code of the Olympic Movement and WT Medical Code.
  - ii. The MNA Medical Committee functions as or oversees the venue medical team at each nationally recognized major competition (e.g. national championships or WT-promoted open championships).
  - iii. The MNA Medical Committee helps the fight against doping in collaboration with the NADO and the competent sports authority.
    - ① The national Medical Committee organises anti-doping training.
    - ② The national Medical Committee manages TUE application.
  - iv. The MNA Medical Committee should arrange appropriate educational activities for affiliated clubs on the application of the WT Medical Code.
  - v. The MNA Medical Committee must report their educational, administrative and medical activities of the committee and its members to CU Anti-Doping and Medical

Chair at least once yearly

### 7.3 National Team

- A. MNAs must regularly mandate their national team members to undertake Electrocardiogram (for athletes at age between 14 and 35) and exercise stress testing (for athletes at age 36 or older) annually as a part of medical certificate. See appendix III for details.
- B. MNAs must receive a medical certificate prior to participating in a WT promoted or recognised competition. The certificate must be submitted for participating in taekwondo sparring or poomsae competition. The certificate must be received on an annual basis at minimum, and signed by a qualified medical doctor. The MNA must provide the WT and MC chair with a copy of each participating athlete's medical certificate before the beginning of each competition.
- C. National Team Medical Staff
- i. The national teams should be accompanied by a medical doctor, an athletic trainer and/or a physiotherapist and/or a chiropractor. A medical doctor will be a lead of the national medical team. To be qualified as a team doctor, medical diploma, completion of appropriate medical training program (e.g., training in emergency medicine, family medicine (or general medicine), orthopedic surgery, trauma medicine, rehabilitation medicine, or sports medicine) and valid professional board certificates are required. The MNA must confirm the authenticity and appropriateness of the professional certificate.
  - ii. Only certified medical doctors can apply for accreditation as Team Doctor at any event where the WT Medical Code is applied. A certified physiotherapist is only eligible to apply for accreditation as Team Physiotherapist. A certified athletic trainer is only eligible to apply for accreditation as team athletic trainer. A certified chiropractor is only eligible to apply for accreditation as team chiropractor.
  - iii. To receive their accreditation, the team doctor, team physiotherapist, team chiropractor and team athletic trainer must attend the medical meeting held before the event.
- D. Functions of the team doctor or team medical staff (either physiotherapist, athletic trainer or chiropractor)
- i. Care in competition: the team doctor is to provide basic medical care outside competitions (or during the match if CMD or central referee permits). This includes the following:
    - ① Cryotherapy (ICE) for contusions, strain and sprain
    - ② Simple wound care or minor laceration care
    - ③ Management of bleeding
  - ii. The fight against doping: The team doctor is to aid in the fight against doping by:
    - ① Training of national team members (referees, coaches and athletes)
    - ② Management of TUE controls
  - iii. Providing assistance to CMD: The team doctor should help CMD provide medical treatment and emergency care for injured competitors per request by CMD or central referee and translate the conversation between athletes and CMD if necessary.

iv. Health and safety protection for the athlete

- ① Conduct, coordinate and manage periodic preparticipation examination and annual medical certificate exam of their athletes
- ② Develop and apply injury and illness prevention methods for their team
- ③ Provide follow up care and coordinate the care for their injured or ill athletes
- ④ Ensure proper protection gear, mouthguard and taping/brace/padding and not wear potentially harmful materials to them or opponents
- ⑤ Advise on withdraw from the competition if the athlete is not medically fit to compete due to an injury or illness or there is any concern for safety of the athlete.

7.4 Local clubs

The local taekwondo clubs and organizations affiliated with MNAs are strongly encouraged to require athletes to submit a medical certificate (medical clearance letter) by medical doctor before they register for the practice of taekwondo and participate in competitions.

A. Type of activity that require medical certificate

- i. Club activities
- ii. Kyorugi (sparring) competitions
- iii. Poomsae competitions
- iv. Para-taekwondo competitions

B. Anti-Doping training

The local taekwondo clubs and different level of organizations with the help of National Anti-Doping Organisations (NADOs) or MNAs are strongly encouraged to give to their members the rudiments of anti-doping training.

## 8. Injury Surveillance, Periodic Health Evaluation and Research

### 8.1. Post-competition injury surveillance

- I. Primary post-competition survey: During any WT promoted or sanctioned sparring competition, any athlete who participated in sparring competition must receive a brief post-competition injury survey (up to one (1) minute) by CMD or medical staff authorized by MC Chair right before they leave the venue after the competition is done, unless there is any emergent situation that the athlete cannot receive the injury survey.
- J. Secondary post-competition survey: For any athlete who have any competition-related injury (or suspected injury) revealed by the brief post-bout survey, more thorough medical evaluation must be done at venue medical room. Point-of-care ultrasound scan shall be used for non-emergency injury assessment if on-site ultrasound is available. Concussion evaluation by SCAT5 (or similar validated concussion test approved by MC chair) shall be done if concussion is suspected.
- K. Any athlete or MNA personnel shall cooperate with medical staff or WT injury surveillance team performing post-competition injury surveillance and comprehensive medical evaluation.

### 8.2. Research protocol



- A. Any athlete participating in any WT promoted or sanctioned competition shall grant WT MC Chair and Medical and Anti-Doping Committee the right by automated consent to the access and the use the athlete's any data related to the injury for injury surveillance and other research purposes (injury prevention and safety protection for the athlete).
- B. Any identifiable information must be kept confidentially and the privacy of the athlete must be protected.
- C. The research or study must not cause any potential harm to the athletes.
- D. Any research project protocol using athlete's data must be reviewed, authorized and monitored by WT MC Chair (or reviewed and monitored by WT Medical and Scientific Subcommittee per WT MC Chair's approval) after assessing the potential benefit and risk to the athlete and ensuring the athlete privacy protection and data confidentiality.

### 8.3. Periodic Health Evaluation (or Medical Certificate)

- i. Periodic Health Evaluation must be done and updated annually by MNA with necessary medical workups such as blood work, TB screening and Cardiac Screening (ECG or Stress test). See appendix III for details.
- ii. WT medical committee mainly adopts the principle of IOC periodic health evaluation consensus (published in 2009).
- iii. MNA must submit the electronic copy (PDF file) of current medical certificate of actively enrolled athletes to WT Sports Department by confidential method (e.g. encrypted email) in January of each year.
- iv. Competition Medical Commission may perform pre-competition medical evaluation for athletes on the same day of first weigh-in. MNA must bring the copy of current Medical Certificate of participating athletes at WT promoted event (G4 and above) for Competition Medical Commission to review)
- v. Athlete without valid annual Medical Certificate shall not be allowed to participate in the competition. Any forged medical record or missing information on significant medical issue of the athletes shall result in disciplinary action or sanction against the athlete, Team Doctor and MNA

## 9. Criteria for “Stop-the-Competition by MC Chair” due to serious deficiency in safety

- 9.1. MC Chair shall notify Competition Supervisory Board and stop the competition in any circumstance that may seriously compromise the safety of athletes, staffs and spectators as listed below.
  - A. No ambulance at venue at any moment.
  - B. Lack of essential emergency medical equipment and necessary medications listed on WT medical code.
  - C. Lack of medical staff per minimal requirement in WT medical code during the competition both at ringside medical station and venue medical room.



D. Significant deficit of professionalism or serious ethical issues against WT medical code, which may jeopardize the athlete safety

\* See Appendix III for requirement for personnel, equipment and medications in detail

## **10. Disciplinary Action**

**10.1.** Failure by any WT member to abide by this code may result in disciplinary action by the WT, including but not limited to loss of membership status for both the offending individual(s) and their affiliated organization.

## **Appendix I:**

**A. The procedure for the management of loss of consciousness, head trauma or Knockdown**

- ① The Centre Referee immediately calls the CMD; and the CMD immediately comes to the mat; the counting of one (1) minute by central referee begins as soon as the CMD arrives in the mat.
- ② Until the injured is examined by the CMD, the injured must remain lying down on the floor and care shall be provided in this position.
- ③ The CMD quickly examines the athlete and provides the injured with emergency medical care.
- ④ The team doctor may assist the CMD per CMD or Central referee's permission. However, the team doctor must comply to the CMD's direction for the care.
- ⑤ The CMD removes the mouthguard and the head guard with caution with protecting the neck.
- ⑥ The CMD performs a neurological and cardiopulmonary evaluation quickly; check Glasgow-coma scale score, breathing, respiration rate, and carotid pulse rate/rhythm. If necessary, CMD must start ACLS protocol; resuscitation with chest compression, a manual breathing (may use oropharyngeal airway with pocket mask if no spontaneous breathing), using the automatic external defibrillator (AED) and activate emergency medical service with assist of EMT / Paramedic / RN.
- ⑦ If cervical spine injury is suspected, CMD shall perform cervical spine immobilization protocol (ATLS) by placing rigid C-Collar on the neck and transporting the patient to stretcher with assist of at least 3 other medical staff.
- ⑧ If loss of consciousness is less than one (1) minute and the injured has stable vital sign without serious trauma, the CMD shall transport the injured in a stretcher to the medical room and perform complete medical examination.
- ⑨ At this point, venue at the medical room may resume the care for the injured athlete and the CMD can go back to the competition; If venue doctor is not available at the medical room, the CMD must stay at the medical room to monitor the injured athlete until venue doctor is available. (If there is no CMD at the ringside medical station, the competition must be stopped until the CMD returns to the ringside medical station.)
- ⑩ Then either Venue Doctor or Paramedic can take over the monitoring of the injured athlete by performing serial examination of the neurologic state (Glasgow coma scale score / orientation) and cardiopulmonary status (blood pressure, pulse rate, oxygen saturation level and respiratory rate) every 15minutes for the first hour, then once every hour up to 2-3 hours.
- ⑪ If the condition of the injured is being compromised or become deteriorated (showing either unstable vital sign, declining mental status, abnormal neurologic status, suspected C-spine injury, severe trauma or loss of consciousness longer than one (1) minute), the injured must be transferred to the designated hospital immediately (emergency room or trauma centre) by an ambulance accompanied by a paramedic and full resuscitation equipment.

**B. Any significant head trauma (any loss of consciousness or altered mental status more than 10 seconds due to concussion or moderate to severe traumatic head injury) carries mandatory suspension for any competition during the suspension period (see below for details). This mandatory medical suspension period cannot be shortened in any circumstances once the suspension is given.**



- Suspension period: Senior athlete: 30 days / Junior athlete: 40 days / Cadet athlete: 50 days
- Second concussion in last 90 days: 90-day suspension
- Third concussion in last 180 days: 180-day suspension

**i) The decision on the suspension on the athlete in competition must be made based on one of the followings:**

- (1) comprehensive neurological examination and neurocognitive testing (SCAT 5 or other validated concussion-assessment tools permitted by MC Chair) performed by either CMD or OMD in the venue medical room and reported and confirmed by MC Chair.
- (2) Any knockout (any loss of consciousness or altered mental status or inability to make any meaningful, stable and voluntary movement as a result of a direct head trauma) at least for ten (10) seconds or by count ten (10) by centre referee (referee-stop-contest) shall be regarded as concussion.
- (3) Failure to fully recover from head trauma and resume the match within one (1) minute of medical evaluation on the mat after the centre referee calls a doctor for possible concussion.

**ii) Administrative procedures for the mandatory suspension due to concussion and serious head trauma**

- (1) OMD (or CMD) must notify the athlete and MNA official (either the head of the team, coach or team medical staff) of the diagnosis of concussion/significant head trauma and mandatory medical suspension rules in person.
- (2) A Certificate of medical suspension must be written by OMD (or CMD) and report the incidence to MC Chair, TD (Technical Delegate) and WT Sport Department as soon as the diagnosis of concussion or moderate to severe traumatic head injury is made.
- (3) Any athlete with concussion or significant head trauma is not allowed to compete until mandatory suspension is completed, and cannot compete the next match even if the athlete wins the match by opponent's illegal attack on the head of the athlete.
- (4) Team medical staff of the athlete with concussion or serious head trauma must report the incidence to MC Chair and WT Sport and strictly follow the return-to-competition procedures for concussion.
- (5) For any incidence of concussion or knockout which was underreported, misdiagnosed or mismanaged without mandatory medical suspension, WT Sport Department, WT MC Medical Committee led by WT MC Chair shall investigate the case by retrospective video review of the incidence even after the competition period is over.

The incidence must be reported to WT MC Chair within 30days after the date of the incidence to commence the investigation.

If the video review confirmed by at least three (3) reviewers of WT medical committee reveals obvious concussion or serious head trauma (knockout more than 10 seconds) or other serious injuries which mandate at least 30-day mandatory medical suspension, WT medical committee shall override the medical examiner (OMD or CMD)'s decision and apply the mandatory suspension rules to the athlete to protect his or her health and safety.

**iii) The suspended athlete due to concussion/head trauma may return to competition if the suspended athlete meets all (1) to (4) criteria as below**

- (1) Strictly follow and complete the post-concussion rehabilitation protocol by team doctor or team physiotherapist (which takes at least 7-14 days).

(2) Obtain a medical clearance letter by either neurologist, or qualified concussion/ traumatic head injury specialist at least 14 days after the onset of the head/neck trauma and the post-concussion rehab protocol is completed.

(the medical examiner for the clearance must put their name/specialty/address of the practice / examined date / contact information (email / phone number) on the form and stamp/sign on the form)

(3) Submit the clearance form to WT Medical Division and WT MC Chair by email to request the review of the medical clearance letter for the return-to-competition

(4) Complete the entire suspension period and receive the notification by WT Medical Division

**\*\*\*The suspended athlete due to any major injuries other than concussion/head trauma may return to competition if the suspended athlete meets all (1) to (4) criteria as below**

(1) Follow-up with the specialist or team doctor for the medical condition as soon as return to their home country and complete post-injury or post-illness rehabilitation protocol by team doctor or team physiotherapist per current guidelines for the specific condition.

(2) Obtain a medical clearance letter by medical doctor; either specialist or team doctor (if team doctor is specialized in the area of the injury and mainly involved in the athlete's care) after the injury or illness is recovered and appropriate rehabilitation protocol is completed.

The medical examiner who writes the clearance letter must put his/her name /specialty /address of the practice / examined date / name and date of birth of the athlete / doctor's contact information (email / phone number) on the form, stamp/sign on the form and print out in official letterhead)

(3) Submit the clearance form to WT Medical Division and WT MC Chair by email to request the review of the medical clearance letter for the return-to-competition.

(4) Complete the entire suspension period and receive the notification by WT Medical Division.

**\*\*\*\* Any athlete's fake action intended to affect the result of the competition by pretending serious injury during the competition shall result in investigation and may lead to the sanction and disciplinary action against the athlete and the MNA.**

## Appendix II

### Requirement for medical service and medical resources

#### A. Medical Service and Facilities

- (1) In its commitment to organize an international taekwondo event, the LOC shall ensure to have the medical staff and medical equipment needed to care for the injured.
- (2) The LOC shall provide medical, physiotherapy, first aid services, facilities and personnel at the competition venue as set out below.
- (3) Designated medical staffs (medical doctors, registered nurses, emergency medical technicians / paramedics, physiotherapist (or athletic trainer) and assistants) should arrive and be ready at the venue one (1) hour prior to the initiation of the competition and should stay at the venue at least for 30 minutes after the competition.
- (4) OMD, MOM and medical team should ensure the medical preparedness and emergency action plan on each day of the competition
- (5) OMD must be in charge of medical team's medical rehearsal under direction of MC Chair with emphasize on the management of knocked-out athlete with entire medical team which should including cervical spine immobilization protocol, ACLS protocol and evacuation of the injured athlete out of the court to the ambulance.
- (6) Medical rehearsal should be done at least for 30 minutes on each day of competition. It should begin one (1) day prior to the competition.

#### B. Ringside Medical Station for Kyorugi (Sparring)

- (1) A ringside medical station should be set up by the mat to cover up to three (3) mats at the venue and the emergency medical equipment including stretcher, equipment for resuscitation, trauma and bleeding control must be prepared at the medical station.
- (2) The medical station should have one (1) large long table and four (4) chairs which should not be occupied by other than medical staffs at all times.
- (3) The minimum number of doctors and assistants at ringside medical station (s) shall be as follows based on the number of courts. The commissioned doctors shall be accompanied by medical staff.
  - i) One (1) medical doctor, one (1) registered nurse, one (1) paramedic/EMT (from one paramedic unit), and one (1) other medical staff (either MD, RN, PT or EMT) for one (1) Medical Station up to three (3) competition courts.

One paramedic unit must be available for one (1) to three (3) competition courts which consists of the minimum one (1) paramedic, two (2) Emergency Medical Technicians (EMT) and one (1) ambulance with full ACLS and ATLS equipment

- ii) Two (2) medical doctors, two (2) registered nurses, two (2) paramedics/EMT (from two (2) paramedic unit) and (2) other medical staff (either MD, RN, PT or EMT for two (2) Medical Stations up to six (6) competition courts.

Two paramedic units must be available for four (4) to six (6) competition courts which consists of the minimum two (2) paramedics, four (4) EMTs and two (2) ambulances with full ACLS and ATLS equipment per each unit

- iii) Three (3) medical doctors, three (3) nurses, three (3) paramedics/EMT (from three paramedic unit) and (3) other medical staff (either MD, RN, PT or EMT) for three (3) medical stations up to nine (9) competition courts.

Three paramedic units must be available for seven (7) to nine (9) competition courts which consists of three (3) paramedics, nine (6) EMTs and three (3) ambulances with full ACLS equipment per each unit

- iv) At least one (1) assistant for one (1) to three (3) mats, at least two (2) assistants for four (4) to six (6) mats, and at least three (3) assistants for seven (7) to nine (9) mats are required to carry stretcher, clean up mats, refill ice and help transportation of the athletes to the ambulance and hospital if necessary

(4) LOC must ensure extra medical staff available at the venue (at least one more medical doctor, one more nurse and one more EMT than minimal requirement) so that ringside medical staffs can take turn for break or the extra medical staffs can cover for other's absence in case of emergency or special circumstances.

In Addition, LOC must have one (1) non-ambulance vehicle (mini-van or large sized car is recommended) with a driver available at the venue for medical team during the competition period to utilize it for non-emergency hospital transfer to keep the ambulance at the venue for true medical emergency situation if it can.

(5) Any WT-promoted must comply to Standard requirement for medical service and medical resources. However, for G1 and G2 events, LOC may discuss with MC Chair and CU Anti-Doping and Medical Chair in advance (at least one (1) month prior to the event) to modify the requirement for medical service and medical resources if it is extremely difficult to meet the requirement due to special situations.

LOC needs to discuss with CU Antidoping and Medical Chair (G1) and MC Chair (G2) for alternative personnel and vehicle for appropriate level of medical service. MC Chair (for G2) and CU Anti-Doping and Medical Chair (for G1) may approve modified requirement as long as the alternative plan with modification of the requirement can properly ensure the safety of the athlete.

\* For any WT Promoted event (G1 and above), if the designated hospital is more than 15 minutes away from the venue by ambulance, two (2) ambulance must be available at the venue at all times. There is no exception on this.

\*\* For any event which is MNA-recognized but is not WT-promoted event, LOC must discuss with MNA Medical Committee director (or head team physician of there is no medical director if MNA medical committee director is not available) and get approval of the medical service and emergency action plan.

i) Venue medical service for any non-MNA recognized event must include at least one (1) registered nurse, (1) paramedic and one (1) EMT with ALS equipment (Defibrillator, Bag valve Mask, Oxygen tank, Oropharyngeal Airway) and a spine board set (cervical collar, spine board, headblock and belt) at the venue.

ii) Venue medical service for MNA recognized regional (province or state level), national or international event must include at least one (1) medical doctor and one (1) additional medical staff (either registered nurse, physiotherapist, physician's assistant, athletic trainer or sports chiropractor) Plus, one (1) paramedic unit must be available at the venue which consists of (1) paramedic, two (2) EMTs and one (1) ambulance with full ACLS and ATLS equipment

iii) Venue medical service for any WT promoted G1 event must include at least two (2) medical doctors (one must be specialized in either sports medicine, emergency medicine, critical care medicine, or trauma medicine), two (2) other medical staff (either registered nurse, athletic trainer, physiotherapist or sports chiropractor) and one (1) volunteer medical assistant

In addition, at least one (1) paramedic unit must be available at the venue which consists of (1) paramedic, two (2) EMTs and one (1) ambulance with full ACLS and ATLS equipment. Also, one (1) non-ambulance vehicle (mini-van or large sized car is recommended) with a driver available at the venue for non-emergency hospital transfer.

iv) Venue medical service for any WT-promoted G2 event should follow (3) Standard requirement. It must include at least three (3) medical doctors (two must be specialized in either sports medicine, emergency medicine, critical care medicine, or trauma medicine), three (3) other medical staff (either registered nurse, athletic trainer, physiotherapist or sports chiropractor) and at least one (1) volunteer medical assistant.

In addition, at least one (1) paramedic unit must be available at the venue which consists of (1) paramedic, two (2) EMTs and one (1) ambulance with full ACLS and ATLS equipment. Also, one (1) non-ambulance vehicle (mini-van or large sized car is recommended) with a driver available at the venue for non-emergency hospital transfer.

v) For Grand-Prix Series, World Para-Taekwondo Championships, World Cup team championships, World Cadet Championships, and Grand Slam Series championships, at least two (2) ambulances are required at the venue during competition period.

vi) For World Championships and World Junior Championships, at least three (3) ambulances are required during competition period. (two (2) ambulances at the venue at all times and one (1) standby ambulance within 10minutes to the venue to replace any ambulance being dispatched for hospital transfer.)



### **C. Ringside Medical Station for Poomsae**

(1) Each ringside medical station should be set up by the mat to cover up to nine (9) mats at the venue and the emergency medical equipment including stretcher, equipment for resuscitation, trauma and bleeding control must be prepared at the medical station.

(2) The medical station should have one (1) large long table and four (4) chairs which should not be occupied by other than medical staffs at all times.

(3) The minimum number of doctors and assistants at ringside medical station (s) shall be as follows based on the number of courts. The commissioned doctors shall be accompanied by medical staff.

i) One (1) medical doctor, two (2) paramedic/EMT (from one paramedic unit), and two (2) medical volunteers (stretcher bearers) for one (1) Medical Station up to nine (9) competition courts.

One paramedic unit must be available for one (1) to nine (9) competition courts which consists of the minimum one (1) paramedic, two (2) Emergency Medical Technicians (EMT) and one (1) ambulance with full ACLS and ATLS equipment

ii) Two (2) medical doctors, three (3) paramedics/EMT (from two (2) paramedic unit) and (3) stretcher bearers for two (2) Medical Stations for ten (10) to eighteen (18) competition courts.

Two paramedic units must be available for ten (10) to eighteen (18) competition courts which consists of the minimum two (2) paramedics, four (4) EMTs and two (2) ambulances with full ACLS and ATLS equipment per each unit

(4) If the Poomsae competitions are mixed and being held simultaneously with Kyorugi competitions, then the requirement for ringside medical station must follow the requirement for Kyorugi competitions.

### **D. Venue Medical Room (Kyorugi and Poomsae)**

The minimum number of doctors and assistants at venue medical room shall be as follows. The medical doctors at Medical Room shall be accompanied by medical staff.

1. At least One (1) medical doctor and one (1) registered nurse must always stand by at the Medical Room

2. At least One (1) assistant must assist medical doctors and nurses (or paramedic) at the Medical Room

3. At least One (1) Physiotherapist (or Athletic trainer or sports chiropractor) must stand by at the Medical Room for massage, stretching or taping.

4. At least one (1) of medical doctors must speak fluent English and have competency in emergency medical care, general medical care, and sports & musculoskeletal injuries

### **E. Medical Service for Athlete Village**

1. It is strongly recommended to designate one (1) doctor, one nurse (1) and one assistant (1) to be on-call and available for any urgent or emergent medical issue after competition hours (9pm-8am) if possible.
2. Thus, it is recommended to provide accommodation for medical staffs either at or near Athletes Village. The medical staff does not necessarily need to be standby at the Athletes Village, but they should be able to be reached by phone call and available within 15 minutes for sick athlete while they are on-call.
3. However, local emergency service (911 or similar) must be called immediately in case of medical emergency.
4. Medical Doctor at Athlete Village should have competency in general medical care and advanced cardiac life support (ACLS)

### **F. Requirement for medical equipment at Ringside Medical Station**

The following medical equipment must be prepared by medical team on site.

1. First-aid kit: sphygmomanometer (one medium and one large size blood pressure cuff), pen lights, gloves, trauma scissors, material for wounds and epistaxis (cotton balls, sterile gauzes, anti-bleeding material, nosebleed plug, trauma scissors), pulse oximetry, Accucheck for glucose monitor(with lancets and test strips), Bandages, Sterile gauzes, Pocket mask
2. A rolling stretcher
3. A wheelchair or chair stretcher
4. Two spine board set (scoop stretcher or hard board with belt and head immobilizer)
5. Rigid cervical collars
6. Upper limb splints, a lower limb splints (preferably fiberglass material) and arm slings
7. ACE wraps and tapes
8. IV lines
9. Sedatives for seizure (Lorazepam IM injection and/or Midazolam buccal injection)
10. Epi-pen (or its equivalent) for anaphylactic shock
11. Anti-bleeding solution (diluted epinephrine solution or its alternative)
12. Epinephrine, Amiodarone, Adenosine and Atropine for ACLS protocol
13. Cold spray (Ethylene Glycol Spray)
14. Ice cubes, plastic bags and plastic wrap
15. Crutches (at least 3 pairs for each 2 different size small/medium/large)
16. Oropharyngeal airway set (in different sizes)
17. Pocket mask
18. Intubation kit with oropharyngeal tube
19. Oxygen mask for manual ventilation with oxygen bottle

20. An automatic electronic defibrillator (AED) must be available at the ringside medical station
21. At least one (1) fully-equipped ambulance for medical emergency should stand by at all times at one of the exit of the venue ~~at least~~ for the whole period of the championships. Therefore, it is strongly recommended to have at least two or more ambulances at the venue in case one ambulance is out of venue for hospital transfer. See Appendix III. B. (3) for requirement.
22. At least one (1) private transportation vehicle for non-emergent hospital transfer cases
23. For the other medical matters, the LOC should strictly follow the WT Medical Code.

### **G. Requirement for medical equipment at Venue Medical Room (Sick bay)**

The venue must have venue medical room at the competition venue to be able to provide any injured or ill patient with care for medical emergency, managing musculoskeletal injuries or common general medical problems with the **following equipment**.

1. At least one (1) Medical exam table
2. Partition or curtain for privacy
3. Medical desk for medical doctors
4. at least five (5) chairs and 2 couches
5. A wheelchair
6. Trash boxes for contaminant (biohazard) and container for sharps
7. ICE in large ICE box
8. Bottles of water
9. Sphygmomanometers (one medium size and one large size Blood pressure cuffs) and thermometer
10. Pulse Oximetry for monitoring oxygen saturation
11. Ophthalmoscope / Otoscope
12. Accucheck for glucose monitor
13. Penlight, Stethoscope and Reflex hammer
14. Gloves and Sterile gloves
15. Hand sanitizer
16. Defibrillator (AED)
17. Oropharyngeal Airway set
18. Intubation kit with oropharyngeal tube
19. Rigid cervical collar
20. A stretcher
21. Oxygen mask for manual ventilation with oxygen bottle
22. ACE wraps(or flex wrap), tapes, kinesio-tapes
23. bandages in different sizes



24. Alcohol solution and pad / Betadine solution/swab / Chlorohexidine solution/swab
25. Cotton Balls, Q tip swabs, Nosebleed plugs, Sterile gauze (2x2, 4x4)
26. Stitch Material for laceration wounds (suture kit, derma-bond, sterile strips, Sterile drapes)
27. Scissors, Forceps, Trauma scissors, Tweezer, Toenail clipper
28. Upper limb and lower limb splints (preferably fiberglass material), finger splints, Arm slings
29. Crutches M/L/XL (3 pairs in each size)
30. Tissues and Paper towels
31. Nebulizer
32. IV lines, Tourniquets and IV needles
33. Small containers for topical medications / container for lost teeth
34. Syringes (1cc/5cc/10cc/20cc), Needles (1.5 inch 22G / 1.5 inch 25G, 16G large bore needle)

#### **H. A list of Required Medications at Venue Medical Room (Sickbay)**

The LOC shall ensure the following medications are ready for instant use at the medical room at the competition venue for the injured. (see below list)

1. Ventolin inhaler HFA
2. Ventolin (Salbutamol) or Duoneb (albuterol-ipratropium) ampoules for nebulizer / nebulizer machine
3. Sedatives (Lorazepam IM/IV and Midazolam IM/IV) for seizure/conversions
4. EpiPen IM (or its equivalent) for anaphylaxis
5. Pain killer (either Morphine IM, Toradol IM, Tramadol IM or NO2 inhaler)
6. Diphenhydramine (or pheniramine) IM injectable
7. Glucagon IM
8. Solumedrol IM/IV
9. Epinephrine and Atropine IV for ACLS protocol
10. Normal Saline 1L bags (at least 5 bags)
11. D5 NS 1L Bags (at least 3 bags)
12. Anti-bleeding solution (diluted epinephrine solution or alternative)
13. Antibiotic ointments (Triple antibiotic ointments and/or Mupirocin ointments)
14. Antifungal ointments
15. Topical NSAIDs (Diclofenac topical or piroxicam topical)
16. Hydrocortisone cream
17. Glucose gel or tablet
18. Artificial Tear



19. bottles of normal Saline solution for wound irrigation (at least 3 bottles)
20. medication for indigestion
21. Glucose tablet for hypoglycemia
22. Anti-acid (Ranitidine 150mg tablet or Omeprazole 20mg tablet or similar)
23. Antispasmodic (Dicyclomine or similar) for abdominal pain/cramping
24. Cough medicine (Dextromethorphan or similar)
25. Oral Pain killer: Tylenol (Acetaminophen), NSAIDs (Ibuprofen and Naproxen)
26. Anti-diarrhea (Loperamide or similar)
27. medication for constipation
28. Diphenhydramine (or pheniramine) (1<sup>st</sup> generation anti-histamine for pruritus/ anxiety)
29. Hydroxyzine (less sedative anti-histamine for pruritus / anxiety) if available
30. Anti-allergic medication (Cetirizine or similar)
31. Anti-emesis (Ondansetron or similar)

#### **I. Required Equipment and Medications for Athletes Village Clinic**

Refer to the requirement for medical equipment and medications at Medical Room.

#### **J. Requirement for ICE**

1. At least 1 icemaker (or ice freezer filled with ICE bags) should be available at the venue
2. At least 2 ice boxes filled with ice pack and cubes should be available in the venue (one in the Athlete Waiting Room, one in the Medical Room)
3. At least 1 ice box filled with ice pack and cube in the Athlete Village Clinic
4. All the iceboxes should be checked and refilled at least three times a day (at 8AM / 1PM / 6PM)

## **Appendix III: Medical certificate, Disqualification and Medical Withdrawal**

### **A. Medical Certificate**

The MNA team medical doctor and MNA medical committee are responsible to collect, review and maintain the annual medical certificates (periodic health exam) of all WT athletes of the MNA.

Each MNA medical committee must designate hospitals, clinics and qualified medical doctors for their athlete to get the annual medical certificate in accordance to this appendix of WT Medical Code.

#### **1. Mandatory elements of Medical Certificate**

A medical certificate must include;

- Past Medical History
- Past Surgical History
- Family history of sudden cardiac death, heart disease, hypermobility syndrome (Marfan syndrome, Ehlers-Danlos syndrome, etc)
- Any previous hospitalization
- Any competition or training-related injury
- Any history of concussion
- Allergy / drug allergy
- Current medical conditions
- Current medication list
- Current or recent (within last 2 weeks) skin cuts
- Review of system and Physical exam
- A proof of immunizations (must be current)
- A proof of HIV, Hepatitis B and C test (must be done within one year prior to the competition)
- A proof of Electrocardiogram once every year for athletes between age 14 to 35 and a proof of exercise stress test once every year for athletes at age 36 or older.

2. Failure to disclose any significant medical history or active medical problem of the athlete in the annual medical certificate or deficiency in required immunization or mandatory cardiac test (electrocardiogram or exercise stress test) shall lead to sanction or disciplinary action against the athlete, team medical staff and MNA.

## B. Disqualification

### 1. Safety protection gear and equipment

: Any athlete who fails to wear appropriate safety protection gear and equipment or remove potentially harmful material from their body at the inspection as below (1) ~ (3) shall not be allowed to participate in the competition

(1) Any athlete whose protection gear (such as head, body, groin, hand, foot protector and mouthguard) has any of the following conditions.

- i) Inadequate body part coverage by the gear
- ii) Inappropriate size
- iii) Significant defect of shape or material

(2) Any athlete who does not have appropriate mouthguard per WT mouthguard rules at the inspection and does not have appropriate mouthguard at any time during the match, or fail to wear appropriate mouthguard despite of receiving a warning by an inspection referee, center referee or WT commissioned doctor.

(3) Any athlete who has piercing, earing or any hard material in the face or any body part at the inspection or during the match despite of receiving a warning by an inspection referee, center referee or WT commissioned doctor.

\* Team medical staff and coaches have responsibility to ensure the athlete to wear proper protection gear and mouthguard per WT competition rules and interpretation and WT medical code and medical rules. Any team medical staff or coaches who fail to comply with the medical code or safety

2. Competition Medical Commission led by MC Chair may either stop the match and/or disqualify an athlete from the competitions by jurisdiction if the athlete meets any of the following conditions (1) ~ (11) that may jeopardize the safety of the athlete

(1) Any signs or symptoms suggesting concussion or post-concussion syndrome.

(2) Any signs or symptoms of neurologic deficit (such as prolonged lethargy, weakness, shakiness, nausea, recurrent vomiting, altered mental status, impaired speech or eye tracking, conversion, or seizure)

(3) Any signs or symptoms suggesting acute cardiac or pulmonary issues (e.g. chest pain, chest tightness/discomfort, shortness of breath, tachypnea, wheezing, coughing, low oxygen saturation)

(4) Any Signs or symptoms suggesting significant active infection (e.g. cellulitis, abscess, pneumonia, sepsis)

(5) Any signs or symptoms suggesting serious organ damage (e.g. rupture or laceration of the liver, spleen, kidney, eye or testicles)

(6) Unstable vital signs (e.g. low blood pressure or uncontrolled blood pressure, desaturation, prolonged tachypnea or tachycardia in resting)

(7) Acute complete or near-complete rupture of any ligament, muscle, or tendon that affects safety or functional performance of the athlete.

(8) Any confirmed or possible fracture of long bone or other fractures with obvious deformity and severe uncontrolled pain

- (9) Any irreducible dislocation or dislocation with neurovascular compromise
- (10) Any deep skin laceration wound with severe bleeding that requires stitches
- (11) Any other medical emergency or trauma that requires emergent medical care
- (12) Any conditions that significantly impairs athlete's ability of walking, jumping, bending, blocking, or avoiding or weightbearing

#### 4. Disqualifying conditions in medical certificate:

(1) Any athlete with any of the following conditions in the medical certificate are not allowed to compete.

- Severe chronic infections or blood dyscrasias (sickle cell disease)
- History of Hepatitis B, Hepatitis C or HIV infection
- Any active infection that can be contagious without completion of proper treatment
- Refractive and intraocular surgery, cataract, retinal detachment
- Exposed / open / infected skin lesions
- Significant congenital or acquired cardiovascular, pulmonary, neurologic or musculoskeletal deficiencies or abnormalities (this may not applicable to Para Taekwondo athlete)
- Active or persistent Concussion symptoms
- Significant psychiatric disorder or substance abuse
- Significant congenital or acquired intracranial bleeding or mass lesion
- Any seizure activity within the last 3 years
- Hepatomegaly, splenomegaly, or ascites
- Uncontrolled asthma or exercise-induced asthma
- Unhealed fracture of the long bone
- Limited range of motion of major joints, impaired basic functions (walking, jumping, squatting, blocking, avoiding) or inability to weight bear
- Uncontrolled diabetes mellitus, uncontrolled hypertension or uncontrolled thyroid disease
- No electrocardiogram or stress test result attached in the
- Pregnancy

\* these conditions must be disclosed in the medical certificate, and MNA team doctor or MNA medical chairperson takes full responsibility to disqualify the athletes with any of these disqualifying conditions)



### C. Medical Withdrawal

Any WT athlete may request medical withdrawal if there is any serious injury or illness which can affect the safety and health of the athlete significantly.

1. For Invitation-based competitions: The MNA or team doctor of the injured or ill athlete must submit the WT medical withdrawal request form with supporting documents before deadline the medical withdrawal notified by WT Sports Department as instructed in the form which can be downloaded in the medical form section of the WT website. WT MC chair or WT medical committee member designated by WT MC Chair will review the form and decide whether to approve the request or not. Refer to the instruction written in the form for details.
2. During the event period: The athlete must be personally examined by WT MC Chair (or medical officer of CSB for the competition) and get approval to be able to withdraw from the competition due to serious medical injury or illness. The athlete and MNA official (coach or team medical staff) must notify the medical officer of CSB before the match begins, then the medical officer of CSB must exam the athlete with OMD and fill out medical form and submit it to WT Sports Department Official staff at the competition as soon as possible to finalize the medical withdrawal approval. Any request after his or her match is over shall not be considered for review except for emergent medical transfer to the hospital due to true medical emergency. In case of emergent medical transfer, the MNA official must notify medical officer of CSB and sport department at the venue on the same day of the incidence.