Minutes of the FIE Medical Commission Meeting
June 23-24, 2007
Hotel de la Paix, Lausanne, Switzerland
Submitted by Peter Harmer (AUS), Recording Secretary

Members present: George Ruijsch van Dugteren (President)(RSA), Catherine Defoligny-Rayaume (FRA), Clare Halsted (GBR), Peter Harmer (AUS), Jeno Kamuti (HUN), Maha Mustafa Mourad (EGY), Ezequiel Rodriguez-Rey (PAN), Wilfried Wolfgarten (GER).

Ex-officio: Ana Pascu, MH (Executive Committee liaison) (ROU)

Apologies: Hamid Naghavi (IRI), Ann Marsh (USA),

The meeting was called to order at 9:05am on Saturday, June 23, 2007, by Commission President van Dugteren.

Agenda

Item 1. Congress proposals. The first order of business was discussion of three proposals for the Congress forwarded by the Executive Committee.

Proposal 1: *"Reincorporate bib as valid surface in foil"* (submitted by Fencing Federation of Brazil).
Harmer (AUS) presented data from 5 year study of national competitions in USA (almost 80,000 participants). Only 4 neck related, time-loss injuries (MF=1; WE=2; WS=1) were recorded, which indicated that there was minimal risk associated with this proposal. However, Wolfgarten (GER) pointed out that certain actions in foil presented different risks to the neck than the other weapons. Questions were raised about data on how often off-target hits on bib occurred and why this was significant enough to act on. All members agreed that anything that reduced safety was to be avoided and that one of the major responsibilities of the Commission was to ensure consistency of care, to minimize the risk of injury and, thereby, enhance the popularity of fencing. As there are no data or arguments that there would be additional risk to the torso if the bib were target, the Commission reached a compromise – it did not support the proposal that the whole bib become valid target because of the risk to the neck, but portions of the bib not protecting the neck could be safely incorporated as target. Therefore, a "safety zone" on the bib that is not target needs to be determined, based on anatomical definition of the safety zone. It was recommended that only the area of the bib below a horizontal line drawn between the sternoclavicular joints (the base of the neck) with the fencer in an upright position be incorporated as target.
Recommendation: The proposal to incorporate the whole bib as valid surface in foil is not supported for safety reasons. However, incorporation of the lower portion of the bib (below a horizontal line at the level of the sternoclavicular joints would be acceptable.

Proposal 2: *"Foil Mask Bib Electrification"* (submitted by Italian Fencing Federation).
After extensive discussion, the Commission decided not to support this proposal because: a) the area of electrification was not acceptable (see "Proposal 1") and b) if the inner surface of the bib was made conductive to provide electrical connection with the jacket it was considered there was an unacceptably high risk that fencers would lift the head, thereby exposing the neck, to reduce or avoid electrical contact from occurring.

Recommendation: The proposal is not supported.

Proposal 3: "Modify FIE Rule t.33" to admit cramp as a treatable condition in competition (submitted by van Dugteren, President of Medical Commission).
Recent high-profile instances of exercise-associated muscle cramp having diminished the quality of fencing at international competitions, the Medical Commission again studied the question of adding cramp to the definition of treatable injury in competition. Extensive discussion, background and definitions are contained in the original proposal. After thorough discussion, the Commission recommended that muscle cramp should be added to t.33. and made minor corrections to the text.
Recommendation: The proposal to modify Rule t.33 is accepted, with modifications underlined as follows:

> **Injuries or cramp, withdrawal of a competitor**
>
> **t.33. 1.** For an injury or cramp which occurs in the course of a bout and which is properly attested by the delegate of the FIE Medical Committee or by the doctor on duty, the Referee will allow a break in the fight lasting no longer than 10 minutes. This break should be timed from the point when the doctor gave his opinion and be strictly reserved for the treatment of the injury or cramp which brought it about. If the doctor considers, before or at the end of the 10-minute break, that the fencer is incapable of continuing the fight, he will decide that the fencer should retire (individual events) and/or be replaced, if possible (team events) (cf. o.44.11.a/b).
> **2.** During the remainder of the same day, a fencer cannot be allowed a further break unless as a result of a different injury or cramp.
> **3.** Should a fencer demand a break which is deemed by the delegate of the Medical Committee or by the doctor on duty to be unjustified, the Referee will penalise that fencer as specified in Articles t.114, t.117, t.120.
> **4.** In team events a fencer judged unable to continue the bout by the doctor may, nevertheless, on the advice of the same doctor, fight in subsequent matches on the same day.
> **5.** The Directoire Technique may modify the order of bouts in a pool in order to ensure the efficient running of the competition (cf. o.16.1).

Guidelines for dealing with exercise-associated muscle cramp will be included in the Medical Handbook ("*Cahier des charges*").

If passed by the Congress, the Medical Commission must coordinate with both the Rules Commission and the Arbitrage Commission to ensure that rule t.33 is appropriately and effectively applied. The Arbitrage Commission, in particular, must emphasize to referees the meaning of the rule and accurate application.

Kamuti (HUN) also proposed that in cases where there is obvious injury/illness, or an inability on the part of the athlete to effectively defend him/herself, the Medical delegate and/or referee should be permitted to terminate the bout. This issue is to be sent to Rules Commission for deliberation.

1:00pm. President Roch attended the meeting to discuss the Commission deliberations on the various proposals

1:45pm. Break for lunch
2:30pm. Meeting resumed

Item 2. Bout management.
Following a directive from the Executive Committee to determine the feasibility of reducing the time between DE bouts from the current 10 minutes, Harmer (AUS) investigated the time of bouts from the table of 32 at 2005 World Championships in Leipzig. The range and average fencing time in minutes were:

Event	Range 32	Average	Range 16	Average	Range 8	Average	Range 4	Final	Average
Foil									
Men	3:04-9:05	7:26	4:40-9:24	7:48	6:30-8:48	7:28	4:36-8:06	6:57	7:26
Women	7:00-9:50	8:46	5:52-9:22	8:22	8:19-9:02	8:50	7:34-9:00	9:30	8:40
Epee									
Men	Missing		Missing		4:10-8:48	7:05	8:15	7:45	7:23
Women	4:25-9:23	7:48	5:33-9:02	7:54	5:28-9:00	7:08	6:59-9:31	9:14	7:48
Sabre									
Men	0:37-2:23	1:07	0:45-1:42	1:05	0:34-0:55	0:49	0:43-0:44	1:17	1:03
Women	0:37-2:36	1:22	0:53-1:54	1:24	0:54-1:34	1:14	0:37-1:09	1:13	1:20

Although these data indicate fencing time of bouts, the actual time on piste cannot be calculated. For additional information on the impact of shortened time between DE bouts on recovery and performance or risk of injury, more research is necessary on physiological factors related to hyperthermia, effect of environment (e.g. altitude), and psychological characteristics. Athletes and coaches need to be included in the discussion. Halsted (GBR) questioned whether this break time was still an issue, given the new competition protocols. The question will be referred back to the Executive Committee for clarification. However, given all of the current information, the Commission does not feel a change is appropriate because it will involve an unfair discrepancy in recovery time in favor of the first semi-final fencer in every final.

Additionally, in the broader context of recovery time, concern was expressed for the health of athletes regarding the competition calendar with many weeks of World Cup competitions in a row for many events. This may not allow adequate recovery time between competitions and the impact of such scheduling on athlete health needs to be investigated.

Item 3. Injury research.
Harmer (AUS) presented the results of three research studies: a) analysis of time-loss injuries in competition, b) non-broken blade penetrating hand injuries in sabre, and c) a case of complete neck penetration by a broken sabre blade.
The time-loss study involved the largest and longest study of fencing injuries to date. Findings indicate that: a) fencing is very safe compared to more popular sports such as basketball and soccer, although the risk of a serious penetrating injury is always present, b) the rate of injury in sabre fencing is significantly greater than for foil or epee, c) women sabre fencers are at the greatest risk for time-loss injuries, and d) most time-loss injuries are in the lower extremities and involve the ankle and knee.
Related to penetrating hand injuries in sabre, 15 cases involving fencers in USA and Europe have been identified. Nine possible risk factors were presented, including the characteristics of the sabre blade, the current nature of sabre fencing, and design of guard and gloves. The number of such injuries, which have occurred in both men and women, from beginner to international elite level, is small but significant and needs to be addressed for the benefit of the athletes and the good image of fencing.

Finally, a case of a broken sabre blade completely penetrating the neck of a fencer was presented. Video analysis shows the mechanism clearly. Discussion followed on the need to reduce the probability of sabre blades breaking, including requiring maraging blades.

Rodriguez- Rey (PAN) reported on orthopaedic injuries, particularly those of the head, face, spine, and upper and lower extremities, treated at 4 international events. It was reported that 50% of the injuries were in the lower extremities; 26% in the upper extremities'; 15% related to the spine. Ankle sprain was the single most common diagnosis.

5:50pm. **Joint Meeting with SEMI Commissio**n:
This was the first joint meeting of the Medical and SEMI Commission for many years. Initial discussion on Medical Commission decisions regarding Proposals 1 and 2 related to the Foil Bib as target. dos Santos (POR), President of SEMI, noted that SEMI had arrived at the same decisions on these two items.

Harmer (AUS) summarized his research on sabre injuries: non-broken blade penetrating hand injuries and broken blade penetrating neck injury for discussion of these problems by SEMI. He recommended the need to look carefully at these related problems to arrive at a solution that will meet the needs of both (e.g., changing the structure of the tip of the sabre blade and requiring sabre blades to be maraging). dos Santos (POR) argued that the hand injuries are due to the poor quality of all gloves, such as AllStar synthetic leather which loses its integrity when wet, although Mayer (CAN) disagreed. Karamete (TUR) and DeChaine (USA) indicated that tip changes were possible, referring to a former design from Russia as one solution. dos Santos (POR) did not think the composition of the sabre blades needed to be changed as the quality of the current blades was the same as maraging. However, sabre blades are not tested in the same way as foil and epee blades. These issues were to be taken up by SEMI. dos Santos (POR) proposed that gloves with holes or wet gloves would not be permitted in competition. This would be checked at weapons control and in the table of 32. The Medical Commission appreciated the discussions with their colleagues in SEMI, and their indication to reconsider tip design and the other concerns raised. However, the Medical Commission recommends structural testing of sabre blades given the increasing use of the point and the problems with penetrating wounds from unbroken blades.

6:30pm. SEMI Commission leaves to resume separate discussions.
Medical Commission review of discussion with the SEMI Commission.

7:00pm. Meeting adjourned for the day

Meeting resumed at 9:00am, Sunday, June 24, 2007.

Item 4. IOC Medical Code.
General discussion of the Commission members' response to the IOC Medical Code (originally published in 2005). Comments had been previously submitted by members on-line and compiled for initial submission to the IOC in April, 2007. Further clarification of certain issues, including problems with the conflict of the Code with national law, was obtained. However, as the Code is principally related to the Olympic Games, several concerns were moot. The Commission unanimously voted to support the document in principle, to advise all members of the FIE of its value, and recommend implementation as appropriate.

Item 5. Anti-doping issues.
Veterans: van Dugteren (RSA) reported inquiries from the organizers of the 2007 Veterans World Championships regarding doping control. ASADA has indicated doping control may

be instituted. Following discussion of the issue, the Commission reiterated its support of the FIE policy that exempts the Veterans Championship from doping control and will recommend the organizers inform ASADA of the FIE policy. If, as allowed by the FIE Anti-Doping Rules, ASADA wishes to continue with testing, an appropriate protocol for TUE submission will be forwarded to the organizers. Defoligny-Rayaume (FRA) raised the issue of ensuring the good health/wellbeing of veteran athletes in competition. This discussion was tabled for the next meeting.

Testing: van Dugteren (RSA) reported that there are 192 athletes in the current FIE testing pool who are required to provide regular "whereabouts" information in order that they may be tested "out-of-competition"; 18 out of competition tests will be conducted by the FIE prior to the Olympic Games in Beijing. During the 2007/7 calendar year in-competition tests will have been carried out on 1,234 fencers at 402 competitions under the aegis of the FIE. Kamuti (HUN) asked for clarification of the number of tests for the Continental and European Championship and noted that the requirement for elite athletes to maintain whereabouts notification for out-of-competition testing was becoming very onerous (with "whereabouts" reporting responsibilities to WADA, the FIE, National Federations, and National Anti-Doping Organisations/NADOs).

ADAMS: van Dugteren (RSA) gave an overview of the new Anti-Doping Administration and Management System (ADAMS), a coordination protocol initiated by WADA which can be used for out of competition testing to avoid duplication of testing and reduce administrative demands on Federations and athletes. The athletes are responsible for keeping the system informed of their whereabouts. Rodriguez (MH), van Dugteren (RSA) and Halsted (GBR) are familiar with the system. WADA is currently offering to teach IFs, NOCs, and NADOs, etc, how the system works. This information will be sent to all federations as soon as practical.

TUEs: In additional, it would facilitate anti-doping if the FIE could enter co-operation agreements with more NADOs regarding the mutual recognition of Therapeutic Use Exemptions. This is an issue that must be actively pursued once the World Anti-Doping Code review is completed in November 2007.

Anti-Doping Information & Education: van Dugteren (RSA) reported that to comply with WADA Code, the FIE must do more out of competition testing and establish a meaningful education program. To this end it would be useful to develop a web-page for the Medical Commission to provide more Anti-Doping educational material; to provide for anti-doping talks, seminars and outreach kiosks at Grand Prix and at World Championships, to display posters, etc. However, to achieve these goals, it would be necessary the FIE to commit the funds for such programs. Kamuti (HUN) noted that 2% of the IOC stipend to the FIE after the Olympic Games should be for anti-doping activity.

Administrative support: The current system of heavy in-competition testing also needs to be re-considered for more efficient use of resources (i.e., develop a system for fewer tests but with the same level of deterrence). To do this, the Commission will look into obtaining the necessary administrative support from the FIE to do statistical analyses of the problem by providing complete information on number of tests scheduled, number actually completed, number of different athletes tested, results, etc. This could allow a shift in focus to more out of competition testing and decrease the costs incurred by competition organizers.

Prohibited List: No major changes are proposed to the WADA List of Prohibited Substances for 2008. However, the revised WADA code (to be introduced beginning January 1, 2008) will provide greater emphasis on serious doping with, in particular, Anabolic Agents, Amphetamines, Hormones (including EPO and Growth Hormone) and prohibited Methods. There will be more stringent penalties for offenses involving these substances, but lesser penalties for other transgressions (e.g. use of "specified substances", that is, those substances "susceptible to unintentional Anti-Doping Rule Violations, because of their general availability for medical purposes or are less likely to be abused as doping agents", such as inhaled asthma medications).

Item 6. World Championship issues.
Despite the stipulations of the medical *cahier des charges*, recent experience at World Championships has shown that organizers still either lack understanding of the requirements or are disregarding them. The Commission discussed the implications of this problem and possible solutions. It was recommended that one Medical Commission member be delegated to visit the organizing committee and competition venue long enough before the competition to ensure that all aspects of the medical requirements are in place.
This recommendation is to be forwarded to the Executive Committee.

Medical Commission delegates for 2008. Recommendation to Executive Committee:

- Cadet & Junior C'ships (Italy) : **Kamuti** (HUN); **Halsted** (GBR)
- Team World Championships/Olympic Test Event (CHN): **Wolfgarten** (GER)
- Veterans (FRA): **Marsh** (USA)
- Olympic Games (CHN): **van Dugteren** (RSA); **Harmer** (AUS).

  This was a contested assignment and the recommendation follows a secret ballot of Commission members conducted by Executive Committee delegate Pascu (MH) (ROU).

***Item 7. Other important matters*.**
a) proposal to further develop FIE Medical Commission policy on **anti-doping education**. Target educational sessions at Cadet championships and IOC Youth Games. Rodriguez-Rey (PAN) provided a summary of an educational symposium he conducted for sabre coaches in Latin America as an example of what may be instituted.

b) proposal to Executive Committee for the **Medical Commission to meet once per year**. The Medical Commission agenda cannot be adequately completed, or important issues dealt with in a timely fashion, on the current cycle of meeting every other year. It is especially important to have an additional meeting prior to the Olympic Games. The meetings in non-Congress years could be held in conjunction with the Medical Symposium at the Senior World Championships.

c) proposal to the Executive Committee to assign an **additional Medical Commission delegate to World Championships**.
It was noted that: a) the working day for the Medical Commission delegates is longer (from before the beginning of the competition to after doping control each day) than for Arbitrage or SEMI Commission (both with 3 or more delegates), and b) to ensure the quickest response to certification of an injury on piste (and the smooth running of the competition), especially if the competition is conducted in more than one venue, an additional medical delegate is necessary. Additionally, one Medical Commission member should attend the venue

sufficiently before the beginning of the competition to ensure that all aspect of the cahier des charges are met, including appropriate supplies, facilities and conditions for the best care of all participants, translation ability of local organizing staff regarding medical terminology, and functional communication (e.g., two-way radios) for Medical Commission delegates. Recent experience has shown that organizers are not attending to these issues appropriately and the risk to the international image of fencing from a mishandled catastrophic injury or death should not be under-estimated.

d) proposal to the Executive Committee to **establish a budget to support**:
(i) **an annual Medical Symposium** for the Senior World Championships. This important activity for the safety and welfare of athletes suffers from the lack of a permanent budget to coordinate with competition organizers to consistently present a professional meeting of up-to-date scientific and medical information, and
(ii) **research activities** of the Commission. The Executive Committee has tasked the Commission with certain responsibilities without resources, which makes it difficult to complete these assignments. Furthermore, research to enhance the safety and welfare of participants is a requirement of the IOC Medical Code that is, as yet, unaddressed by the FIE.

e) proposal to Executive Committee to have a member of the **Athletes Commission** attend Medical Commission meetings. Input from athletes' representative is important in many of the issues of the Medical Commission and, equally important, for athletes to understand the rationale behind decisions.

f) proposal to the Executive Committee to support and **ensure dissemination of Medical Commission reports** to the international fencing community through publication in *Escrime*. To date, no reports submitted to Escrime have been printed. Additional space on the FIE website for permanent, real time access to Medical Commission reports and information is also requested.

g) recommendation to Executive Committee to emphasize to FIE Observers, and other officials, to ensure that coaches and athletes **wear appropriate protective equipment**, especially masks, during lessons and warm-up. Observations at a number of World Cups have indicated that some coaches do not respect this basic safety action.

h) recommendation to Arbitrage Commission: emphasize to referees the need to check the integrity of **transparent visors** before each match, specifically that all of the screws are in place. Anecdotal evidence indicates that masks have been altered by athletes after Weapons Control that reduces the integrity of the equipment.

i) recommendation to Arbitrage Commission: referees should give priority of medical care of athletes on the piste to the medical personnel of the athlete's team, where available, rather than the medical team of the organizers, provided this does not unduly disrupt rapid resolution of the problem. Experience at World Championships over a number of years has shown that language barriers, lack of specialized treatment equipment, and unfamiliarity with fencing-specific injuries by medical personnel of the organizers causes unnecessary confusion and delay in treating injuries on the piste.

Meeting adjourned by President van Dugteren (RSA) at 4:00pm.