

# PROVIDING MEDICAL SERVICES TO AQUATIC ATHLETES

## SIX KEY CHALLENGES

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Aspetar provides medical services to more than 100 national and international sporting events in Qatar every year. One such event was the 12th FINA World Championships (25m) in December 2014, while Doha also hosts the annual FINA Swimming World Cup. To effectively plan and execute medical service delivery, it is important to understand the specific challenges of aquatic sport. This article will discuss six key challenges:

1. Optimising athlete (and support team) health.
2. Communication, teamwork & collaborations (often involving healthcare professionals from different institutions).

3. Medical record-keeping.
4. Pharmaceutical management.
5. Managing the media (including social media etiquette for the medical team).
6. The three R's: review, report and respond (improve).

### 1. ATHLETES GET ILL AND INJURED – OFTEN AT THE WORST POSSIBLE TIME

Optimal athlete health is crucial to ensure best performance. It is therefore important to plan for comprehensive athlete medical care at the training and competition venue as well as at the athlete accommodation. In swimming, a physician is normally pool-side (close to the anti-doping officer) during competition (with trained life guards and

emergency medical staff) ready to manage any emergency. It is good practice to rehearse pool and pool-side emergencies with the team before the start of the event.

### *Risk and prevention*

A number of factors contribute to the increased risk of illness and injury in competitive athletes. Viral illnesses – especially respiratory and gastro-intestinal tract – are very common and remain one of the greatest threats to competition performance. Prevention is an important part of health management in elite athlete care and various measures should be in place to prevent and manage potential infectious disease outbreaks.



- Food – review all the food safety policies and involve experts in food management and licensing of food suppliers. The assistance and expertise of the Aspire Food Safety Committee was invaluable to ensure a safe food supply to athletes, officials and spectators at the 12th FINA World Championships (25m).
- Hand hygiene – provide facilities to wash hands and alcohol gel dispensers throughout the venue, including the team therapy area, call room and team official/media areas.
- Education – a major sporting event is the ideal opportunity to further educate athletes and coaches as well as travelling medical teams on important health matters. At the time of the FINA World Championships, the Aspetar Sports Medicine Journal featured an interview with Olympic gold medalist, Chad le Clos as well as a paper on the clinical approach to shoulder pain in swimming.

#### Illness

Elite athletes who travel more than five time zones from their home country have a two to three-fold increased risk of illness<sup>1</sup>.

On average, just over 7% (758) of all athletes fell ill during the 2012 Olympic Games<sup>2</sup>. In aquatics, 5.1% (diving) to 12.5% (synchronised swimmers) of athletes reported an illness during the Games. Asthma is common in swimmers and medical teams should be ready to treat these athletes – including those with acute exacerbations.

#### Injuries

Endurance aquatic athletes often train while injured; overuse shoulder injuries are the most common injury<sup>3</sup>. In particular, physical therapists, the Local Organising Committee (LOC) and travelling team therapists work non-stop to keep 'injured' athletes swimming.

These ongoing injuries remain a challenge, not only to the athlete and medical team, but also to the epidemiologists doing illness and injury surveillance. One-third of the athletes who participated in a study reported an injury or physical complaint in the 4 weeks prior to the 15th FINA World Championships 2013 (aquatics)<sup>4</sup>. Aspetar and FINA hosted a recent consensus meeting on illness and injury surveillance in aquatic sport and the final document will be published in the *British Journal of*

*Sports Medicine (BJSM)* early in 2016. One of the biggest challenges is to monitor athlete health using consistent variables both in- and out-of-competition.

Injuries, especially head of the neck and shoulder are particularly common in water-polo<sup>4</sup>. FINA recently introduced high diving as one of the aquatic disciplines. This event will require the LOC medical team to carefully consider the emergency medical plan.

#### Medical services to non-athletes

Don't forget medical services to event workforce, team management and support staff. They are often older, work long hours and typically walk longer distances than usual. An experienced general practitioner will add value, allowing sport and exercise medicine physicians to focus on competing athletes.

## 2. TEAMWORK – EFFECTIVE COMMUNICATION AND COLLABORATION TO IMPROVE ATHLETE HEALTH AND PERFORMANCE

There are a number of different and important bodies who play a role in major sporting events including (with reference to aquatic sports in Qatar): the LOC, Qatar

Olympic Committee, Qatar Swimming Association, FINA, travelling medical teams and emergency services (Qatar Red Crescent and Hamad Medical Corporation ambulance services).

We emphasised the importance of effective teamwork in our 2014 *BJSM* paper: ‘Managing the health of the elite athlete – a new integrated performance health and coaching model’<sup>5</sup>. The medical team should collaborate closely with team management and coaches. This is no different for the LOC medical team. The 12th FINA World Swimming Championships (25m) LOC closely partnered FINA and the Qatar Olympic Committee, the Qatar Swimming Association and Aspetar (as the LOC Medical Commission). The LOC facilitated direct communication with the FINA Medical Committee, providing the ideal framework for collaborative projects to improve athlete health and performance.

For the first time in the history of aquatic sport, FINA and Aspetar performed in-competition cardiac screening. This project, a pilot for the ‘Swimmer’s Heart Study’, proved very successful especially to those athletes with no such services in their own countries. Dr Nathan Riding reports in this issue some of the lessons learned and a comprehensive report will be published in the *BJSM* in 2016. FINA and Aspetar will collaborate further to extend this project as part of a prospective cohort study over the next 3 to 5 years.

The LOC Chief Medical Officer met with the Chairman of the FINA Medical

Committee daily to discuss mutual challenges and solutions. They also discussed athletes who withdrew from competition due to illness or injury. Medical teams travelling with athletes to major events are usually the first medical point of contact. However, many athletes travel and compete without a personal or regular team physician and/or therapist to consult, relying on the LOC medical team to provide the necessary services.

The LOC medical team co-ordinated all the medical services from a medical operations room close to the warm-up pool and team therapy area. This facilitated a seamless system whereby team medical staff, coaches and athletes could seek medical care or advice. Electronic medical records, referrals and emergency care were co-ordinated from this room. The LOC medical team project manager was available to assist with the number of logistical challenges – including ice baths, extra therapy beds, food, access passes etc.

A few general guidelines include:

- Have regular meetings (LOC medical commission) with minutes taken.
- Circulate the minutes to all the stakeholders, inviting comments and suggestions.
- Have a deadline for these comments – waiting for input might significantly limit the ability to execute in a timely manner.
- Establish radio communication between the LOC medical team, the different emergency teams and the operational

‘dispatcher’ – ambulances, official transport etc. Mobile phones or an event ‘WhatsApp’ group is an excellent way to communicate important logistical matters. Be mindful not to use these applications in a general group setting to communicate personal or confidential medical information.

### 3. PROFESSIONAL MEDICAL RECORD-KEEPING

It is often difficult to keep track of all the medical encounters during a very busy sporting event. Written (electronic) medical records are an important part of good clinical practice. All the members of the medical team (physicians, therapists and clinical scientists) should use a standard form of record-keeping and provide a report to the LOC Chief Medical Officer as soon as possible after an encounter. This is not only for obvious medico-legal reasons but also to answer injury and illness surveillance objectives and to provide athletes and visiting medical teams with professional post-event medical reports. This practice will facilitate continued medical care when the athlete returns to his/her home country or form part of a personal athlete health record.

### 4. PHARMACEUTICAL POLICY – SAFE MEDICATION PRESCRIPTION

Many medical teams and individual athletes travel with their own medical supplies, including medication and supplements. The travelling medical teams should be aware of the national regulations



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on importing pharmaceuticals, seeking LOC Medical Commission assistance if needed. We published the relevant Qatar National Government guidelines on the 12th FINA World Swimming Championships (25m) LOC website. All medical team members should also be well aware of the World Anti-Doping Association code.

The Aspetar pharmacy, a short walking distance from the competition venue, provided professional and logistical pharmaceutical support to the LOC Medical Team as well as individual athletes and teams.

## **5. MANAGING THE MEDIA**

Medical teams cannot ignore the importance of television, printed/online press and social media in elite sport. Establish a good working relationship with the LOC media officer as well as the FINA (or international governing body) media representatives – especially as it relates to elite athlete health. Communication challenges should be discussed, it is especially important to have all media communication through the LOC Chief Medical Officer and LOC management. Respecting patient confidentiality is critical.

Many teams and organisations now have a specific media policy. All medical team members should be aware of the social media policy. It is not professional for support staff (coach or medical) to tweet about their involvement with a specific athlete/team or to request a photograph without seeking specific informed consent.

As a general guideline, never speak to any media representative without seeking

the advice of your team media manager. Be especially careful with requests from television networks to film at the training or competition venue or inside medical and therapy areas. This cannot be allowed without the necessary consent, involving the athlete, team management and the LOC as appropriate.

## **6. REVIEW, REPORT AND RESPOND (IMPROVE)**

The LOC medical commission should perform an extensive post-event review of all the medical services. This review should include the planning and delivery phases and must involve members of the LOC medical commission, key non-medical members of the LOC and the medical committee of the international governing body (FINA).

The findings and proposed responses (improvements) should be reported as part of an official written 'medical report' with copies given to the different members of the relevant organisations involved in the event.

## **CONCLUSION**

No single event is the same; different venues, people and athletes each present their own challenges, as do the ever-evolving rules of the sport. It is prudent for any healthcare practitioner, involved in the care of competitive athletes before and during major events to ultimately focus on promoting athlete health. That's the key. In doing so, all other (personal) objectives are secondary. The athlete is there to perform, at his/her best. Our role is to respect and support that.

## **References**

1. Schweltnus MP, Derman WE, Jordaan E, Page T, Lambert MI, Readhead C et al. Elite athletes travelling to international destinations > 5 time zone differences from their home country have a 2-3-fold increased risk of illness. *Br J Sports Med* 2012; 46:816-821.
2. Engebretsen L, Soligard T, Steffen K, Alonso JM, Aubry M, Budgett R et al. Sports injuries and illnesses during the London Summer Olympic Games 2012. *Br J Sports Med* 2013; 47:407-414.
3. Van Dorssen E, Whiteley R, Mosler A, Ortega-Cebrian S, Dijkstra HP. Shoulder Injuries in Swimming - Meeting the Challenge. *Aspetar Sports Medicine Journal* 2014; 3:584-593.
4. Mountjoy M, Junge A, Benjamin S, Boyd K, Diop M, Gerrard D et al. Competing with injuries: injuries prior to and during the 15th FINA World Championships 2013 (aquatics). *Br J Sports Med* 2015; 49:37-43.
5. Dijkstra HP, Pollock N, Chakraverty R, Alonso JM. Managing the health of the elite athlete: a new integrated performance health management and coaching model. *Br J Sports Med* 2014; 48:523-531.

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