

PART B

MEDICINE OF SPORT

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PREFACE

Karim Khan

“Sports and Exercise Medicine” is, in many countries, mostly a synonym for Musculoskeletal Medicine—treating injuries and pain in athletes. In other countries, “Sports Medicine” was an amalgam of exercise physiology and musculoskeletal medicine so the focus of the sports physician was to treat medical (i.e., non-musculoskeletal) conditions of the athlete and focus on improving the athlete’s performance (i.e., with nutrition/supplements, training strategy). In this model, injuries and their management were the domain of physiotherapists and surgeons.

A substantial number of conditions seen in athletes are indeed “Medical”, i.e. not related to orthopaedic sports injuries. Survey data from major events usually confirm this by showing a 60/40 or 40/60 balance between injuries and illnesses, depending on the type of Sport. Contact- and power-type sports usually show more injuries, whereas non-contact and endurance-type disciplines feature illnesses and related matters as main problems.

The Sports and Exercise Medicine physician has training and expertise in a wide range of topics. Before we highlight chapters that highlight specific medical conditions, we outline the role of sports physicians in various team settings, the value of the period health examination and the advances that have been made in sports injury prevention. These advances are in the overall training approach and in focusing on specific injuries that can be prevented—such as ankle sprains and ACL injuries.

When I started in sports medicine in Australia in the 1980s, it’s fair to say that concussion was getting little attention. Players in various football codes got knocked out, they often continue playing and they rarely missed games. Clearly, we were neglecting them and things have been very different in the 2000s and 2010s. In chapter 4, you can read how doctors and scientists are working together to develop evidence-based consensus statements, how guidelines are rolled out into a clinical program (research into action in rugby) and how the sports of boxing aims to protect athlete health.

Cardiac issues are often front of mind for the sports physician because of the tragedy of sudden cardiac death. Sports cardiology is a clear strength of Aspetar and hence the Aspetar Sports Medicine Journal. In this Collection experts explain the physiological changes that underpin ‘Athletes’ Heart’, the common pathologies that cause cardiac death in football as well as the risk of life-long prolonged, intense exercise for the heart.

Respiratory problems are feared by athletes and often neglected in sports medicine prevention plans. COVID-19 may change things so that physical distancing becomes more normal (even post-pandemic) and I believe the 2020 virus experience make athletes and coaches less likely to attend training and meetings with other athletes when they have upper respiratory tract symptoms. The Collection includes an important paper on managing respiratory symptoms in swimmers and of course, there is a deep dive on asthma/exercise induced bronchospasm.

Overtraining syndrome continues to thwart our very best athletes at the peak of their prowess. More insidiously, the relative energy deficiency syndrome is increasingly recognized by clinicians but athletes may deny its existence. These medical conditions have a powerful impact on performance and long-term health can be compromised. Also, many medical conditions are often underdiagnosed, thus causing a sustained negative impact on the athlete’s performance. On the positive side, you can read about the many benefits that exercise confers on the immune system.

Highlighting the breadth of the Aspetar Sports Medicine Journal's content, this Collection includes 5 papers on different aspects of the athletes who compete in para-athletics and the opportunities for their medical care. Keeping with Aspetar's commitment to delivering front line care, one of the papers shares vast experience from the team physician perspective.

An entire chapter is devoted to event medical services and the Aspetar authors are very experienced because of the over 60 events held in Doha annually. The chapter includes a focus on football ahead of the 2022 FIFA World Cup in Qatar and a report on medical care at the World Championships in both Handball and Swimming

The final chapter in this section focuses on 3 elements: sports ethics, its counterpart doping and a discussion of women's participation (or not) in sport. Too much medicine is discussed under this umbrella and while it's unethical to deliberately provide services that are not needed but defining 'need' is not easy. Read about the pressures on the physician who is working alongside elite athletes. Be reminded of the important things for all doctors to consider (and reconsider!). The story of women in sport will be thought by many to be a horror story and there remain difficult challenges. This section on Medicine in Sport then closes with specific insights to one major doping scandal. It then addresses the question 'Why?'—what encourages athletes to dope? You'll see antidoping plans put into action in Cycling and Handball and read about the latest in doping science and technology. Who needs a biological passport and what advantages does it have over previous methods?

We editors have been delighted to work with these interesting papers and our hope is that you enjoy them and learn from them as much as we did.
