The importance of sports medicine for the Sochi Games

Kathrin Steffen,1,2 Lars Engebretsen1,2

Many of us winter sport enthusiasts will still remember the last Winter Olympic Games in Vancouver 2010: fantastic organisation and weather—a real ‘folk festival’ with street parties up in Whistler and in downtown Vancouver. However, we also remember a high number of injuries and tears of disappointment among athletes in the spectacular snowboard and ski freestyle races at Cypress Mountain specifically.

In these cross-disciplines on snow, inspired by motocross, athletes compete in heats of four and race head-to-head at high speed through jumps and obstacles of varying difficulty. The International Olympic Committee (IOC) injury surveillance during the 2010 Olympic Winter Games reported snowboard and freestyle cross as high-risk disciplines, and women were specifically prone.1 In many cases, these injuries prevented the athlete from further participation in the Olympics.

SNOWBOARD AND FREESTYLE ARE UNDER CLOSE SCRUTINY

What are the IOC and the International Winter Federations doing to make the sports safer? Injury reports from the last skiing and snowboarding World Cup seasons indicate that knee and head injuries are the most common injuries.2 Catastrophic head injuries, such as skull fractures or cerebral haemorrhages, are rare but despite that there were two fatalities in the freestyle circuit in the last 2 years.

Snowboard and freestyle cross are spectacular events and important for the Games and the public with their fights for the best course line from start to finish, but are these courses too difficult for women? Was the high injury rate among female freestyle and snowboard athletes in Vancouver an aberration or an accurate reflection of the sport? Are women at substantially higher risk in these sports?

The IOC and International Sports Federations will carefully scrutinise the injury rates in Sochi and analyse the mechanisms of injury. The world’s leading clinicians, biomechanists, coaches and sports officials are working together to better understand injuries. They are continually on the lookout to balance the excitement of a sport with the risk that is inevitable in these events.

STEP BY STEP TOWARDS PREVENTION SUCCESS

In this Sochi edition of Injury Prevention and Health Protection (IPHP), we highlight the sports of Ice Hockey, Snowboard, Alpine, Freestyle and Speed Skating. Most of these papers address step 1 or 2 in van Mechelen’s four-step sequence of injury prevention.3 Step 1 is ‘How big and serious is the problem?’; step 2 relates to injury risk and mechanisms ‘What causes these injuries and how do they happen?’

The International Skiing Federation (FIS) is to be commended for its proactive commitment to sports injury prevention. In 2006, the FIS Injury Surveillance System, a long-term injury surveillance system, was established in partnership with the Oslo Sports Trauma Research Center.2 This comprehensive registry (database with inclusion of ALL injuries) forms the basis for ongoing and long-term injury prevention research. This will allow the federation to monitor injury trends over time, as well as to evaluate the implementation of rule or equipment changes.

New skis, slightly longer and with a larger turn radius, were introduced to the Downhill, Super-G and Giant Slalom World Cup circuits to make those events safer. A new helmet standard for World Cup alpine skiing has been implemented recently (2013/2014 season).

These initiatives to reduce injury risk could not be evaluated without having access to an established and well-run database and the continuous monitoring of injury risk over time. The articles of Major et al,4 Bere et al,5 Steenstrup et al6 and Randjelovic et al7 are all examples of research based on 6–7 years of data and more than 5000 athlete interviews.

HEALTH PROTECTION ON VARIOUS FRONTS—INCLUDING THE IOC

The Medical Commission of the IOC has for a long time recognised the important role played by sports medicine in protecting the health of athletes.8 The IOC is cooperating with the International Federations by enabling them to run studies aiming at making the Games safer for the athletes: step 3 in the van Mechelen-model—Prevention.3 As in Vancouver1 and the Olympic summer Games in Beijing9 and London,10 the IOC will continue with their Injury & Illness Surveillance project to potentially identify sports at high risk, evaluate rule changes and in general protect the health of the Olympic athletes.

On the basis of almost 2000 medical encounters from the physiotherapy service in the 2012 London Games Polyclinic, the Grant’s paper11 describes the role (‘extended scope’ for some countries) of sports physiotherapists in not just treating athletes but also contributing to recovery and injury prevention. The London Games proved the value of the multidisciplinary care model that operates in the UK; BJSM’s member society, the ACPSEM, deserves praise. Grant’s paper also identifies staffing needs; this will benefit organisers of future major sports events. The Ice Hockey paper by Dr LaPrade et al12 meets IPHP’s goal of providing practical information for team physicians.

As part of its commitment to supporting the health and performance of athletes and to the continuing professional development of those who care for them, the IOC Medical Commission now offers a postgraduate-level training programme in sports medicine. The programme is designed to meet the needs of team physiotherapists for elite athletes, particularly targeting the National Olympic Committee and International Federation physicians.3 Enjoy this edition of BJSM Injury Prevention & Health Protection (IPHP).

Have a wonderful Sochi 2014 Games! Remember to keep an eye out for the three other Injury Prevention and Health Protection issues this year (April, June, September) and you can find the issue by issue archive of all IPHP issues (since 2009): http://bjsm.bmj.com/content/by/year#iphp.

Competing interests None.

Editorials

1Department of Sports Medicine, Oslo Sports Trauma Research Center, Norwegian School of Sport Sciences, Oslo, Norway; 2Department of IOC Medical & Scientific, Lausanne, Switzerland

Correspondence to Dr Kathrin Steffen, Department of Sports Medicine, Norwegian School of Sport Sciences, Oslo Sports Trauma Research Center, PB 4014 Ullevål Stadium, Oslo 0806, Norway; kathrin.steffen@nih.no

Br J Sports Med January 2014 Vol 48 No 1
REFERENCES


The importance of sports medicine for the Sochi Games

Kathrin Steffen and Lars Engebretsen

doi: 10.1136/bjsports-2013-093253

Updated information and services can be found at:
http://bjsm.bmj.com/content/48/1/1.full.html

These include:

References
This article cites 12 articles, 6 of which can be accessed free at:
http://bjsm.bmj.com/content/48/1/1.full.html#ref-list-1

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/