240 AN EPIDEMIOLOGICAL STUDY OF INJURY AND ILLNESS IN THE BRITISH SKELETON SQUAD – 2009–2013

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Background Injury and illness prevention can have not only athlete health benefits but also potential positive performance gains in elite sport. Valid injury/illness surveillance data is needed in the first step towards prevention.

Objective Provide injury/illness epidemiology information on the British Skeleton squad.

Design Longitudinal prospective surveillance study, recording injury/illness, and training/competition exposure data. Definitions for injury/illness, time-loss and performance-restriction were used to identify the rate and severity of athlete injuries/illnesses.

Setting British skeleton national training centre, including domestic and international training/competition venues between 2009–2013 (4 seasons).

Participants 21 (14 male; 7 female) National team athletes.

Interventions Standardised report forms for injuries/illnesses were completed by medical, and competition/training exposure by coaching, support staff.

Main outcome measure Injury/illness rate, severity and causes.

Results There were 49 training (4.3/1000 athlete training hrs) and 10 competition (14/100 competition starts) injuries, with 10 days and 3 days lost per injury, respectively. Injuries to the thigh (41%), followed by knee and lumbar spine (20% each) were most common, with 4, 13, and 14 days lost per injury, respectively. Muscle strain was the most common type of injury (36%), and lesion of meniscus/disc the most severe (36d), the latter also causing the greatest burden. The most common cause of injury was push start strides and upright sprinting, all resulting in thigh (posterior) muscle strain injuries. There were 16 illnesses (40% squad seasonal prevalence; severity 4d) and respiratory was the most common illness type (80%), occurring most frequently around periods of high training volume, competition and travel.

Conclusions Prevention initiatives focussed on thigh and lumbar spine injuries, and also illnesses around competitive periods in the season may be beneficial in reducing the number of athlete days lost to training/competition.

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