Injuries in Elite U.S. Rugby 7s Tournament Players over 4 years: Time Loss and Medical Attention


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PURPOSE: There is a lack of injury data on U.S. rugby and the new Olympic sport Rugby-7s. To determine the incidence (per 1000 playing hours (ph)), severity (days absence), and mechanisms of injuries.

METHODS: A prospective epidemiology study of Elite/national candidate males (348) and females (336) in USA Rugby sanctioned tournaments, 2010-2013; compliant with the international consensus statement for studies in rugby union.

RESULTS: Incidence of injury for medical attention and time-loss injuries combined were 89.7/1000ph (n=88) (men 23.9±3.6 years old; women 25.0±4.6 years old). Time-loss injuries were encountered at 41.8/1000ph (n=41, 95% CI: 30.0-56.7) as compared to medical attention at 47.9/1000ph (n=47, 95% CI: 35.2-63.7). Male competitors (backs 134.3/1000ph, n=40; forwards, 71.6/1000ph, n=16; RR: 1.28; P=0.03) were injured more often than women (backs 83.7/1000ph, n=22; forwards, 45.6/1000ph, n=9; RR: 1.2, P=0.134) (RR: 1.3, P=0.005). More days absence from play were encountered by women than men (1123 versus 548 days missed; P=0.017). Most injuries were acutely (68%) encountered in the tackle. Main injuries were ligament sprains (34%) to lower extremities (53%). Knee injuries were more frequent in men than women (P=0.005). There was a high incidence of head/neck injuries (including concussions) among both sex (overall 22%; men 25%; women 16%) (P=0.044).

CONCLUSION: U.S. Elite tournament players were injured at lower rates than their international Rugby-7s counterparts. Given the high rate of injury in head and neck; and repetitive injury incidence, injury prevention initiatives should focus on proper tackling techniques, diagnosis of injury post tournament and a standardized return to play protocol. Understanding incidence of injury rates in U.S. national candidates would guide injury prevention protocols for the national program.