0286 DESCRIPTIVE EPIDEMIOLOGY OF RHABDOMYOLYSIS IN ACTIVE DUTY US ARMY SOLDIERS, 2004–2007

O T Hill*, M M Wahi, R Carter, A B Kay, R F Wallace *Correspondence: Social Sectors Development Strategies (SSDS), Inc., 1411 Washington Street, Suite 6, Boston, MA, 02118, USA*

10.1136/ip.2010.029215.286

Introduction Rhabdomyolysis (RM) is a skeletal muscle disorder resulting in severe cellular injury caused by vigorous physical activity (exertional) as well as other systemic aetiologies (non-exertional). The sparse peer-reviewed literature on RM has limitations (eg, small samples and specialised study populations). We identified all clinically presenting RM in the entire US Active Duty Army (ADA) (2004–2007) to examine descriptive characteristics associated with RM in soldiers.

Methods We utilised the Total Army Injury and Health Outcomes Database, which contains ADA personnel and health data, to develop crude and stratified annual rates. A case of RM was any soldier having an ICD-9-CM diagnosis code of 728.88 within inpatient or outpatient clinical encounter records, consistent with prior administrative data research.

Soldier characteristics examined included gender, age, race, marital status, education and length of service.

Results Annual rates of RM remained fairly stable, ranging from 53 to 66 RM cases per 100 000 soldiers. Subtle rate fluctuations were observed. Rates were highest for: African-Americans (AAs) (97–119 per 100 000), those with <1 year of service (<1 SVC) (88–128 per 100 000), males (54–71 per 100 000), those <20 years of age (50–92 per 100 000), single soldiers (58–75 per 100 000) and those without a high school diploma (56–103 per 100 000).

Conclusion AAs and <1 SVC appear more susceptible to RM, in part due to the increased prevalence of sickle cell trait within AAs, as well as vigorous initial physical training. As soldiers at risk for RM are further identified, safety and injury prevention programmes should target these populations.