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Profiling the physical demands of mounted police during a major event

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Aim: To profile the physical demands of a mounted police unit during a 10-hour shift.

Design: Prospective cohort study.

Method: Data were collected from 8 mounted police officers (males=2) during 10-hour shift at Mardi Gras (reportedly one of the most physically demanding shifts), in full patrol gear, weighing on average, 6.5kg. At the beginning of their shift, officers were fitted with Polar Team Pro units to monitor heart rate (HR) and HR variability (HRV) as well as components of distance traversed and speed. Ethics approval was provided by the Bond University Human Research Ethics Committee #BS02126.

Results: The officers' travelled on average 17.6±2.4km on horseback, with average speeds of 1.8±0.3km/h and mean maximum speed of 20.1±11.6km/h. There were on average 4.8±8.0 moments of accelerations of more than 2.8m/s² and 3.8±6.8 decelerations of more than -3.0m/s². Throughout the shift, the mean HR was 96.3±11.7bpm and HRmax 161.9±11.7bpm. Officers spent on average 26.9±39.3min at HR70-80%, 9.2±9.0min at HR80-90%, and 2.5±2.7min at HR90-100%. The average HRV (RMSSD) was 20.0±5.9ms, with a range of 9-30ms.

Conclusion: The profile of this 10-hour shift highlighted the unique physical demands of mounted police. Time, distance, and speed on horseback are noteworthy, as well as number of accelerations and decelerations.

Key Practice Points:

- Mounted police have different physical requirements to general duties police.
- Return-to-work programs for mounted police should consider the high physical demand to ensure optimal fitness for duty.