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**EPIDEMIOLOGICAL PROFILE OF HOSPITALISED INJURY
AMONG E-BIKE RIDERS**

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Background Along with the booming market for Electric bicycles (E-bikes) in China, increasing concerns are raised about riders' safety. Police reported 40% fatal crashes involving E-bikers; however knowledge of serious injuries was missing.

Objectives To describe the injury patterns of hospitalised E-bike riders involved in road crashes and investigate whether the injury risks differ in population segments.

Methods This cross-sectional study collected hospital separation records for an 8-month period to describe injuries of hospitalised injured E-bikers in Zhangjiagang hospital. Injured body regions and injury natures were categorised using the 10th revision of the International Classification of Disease. OR and its 95% CI were used to assess the risk of specific injury types controlling for demographics and crash details.

Results Overall, 323 E-bikers were hospitalised for injuries, accounting for 57.2% of total hospitalised road crash victims. The average age, length of stay, and hospitalisation cost were 43.8 years, 10.0 days, and 8 228.8 Chinese Yuan, respectively. Head injuries were the most common injury types and fractures were dominant across different injury natures. The risk of traumatic brain injury was significantly associated with collisions without motor vehicles (OR=2.1, 95% CI 1.3 to 3.3) and after-work crashes (OR=2.2, 95% CI 1.3 to 3.7). The risk of fractures was significantly elevated among local residents (OR=1.7, 95% CI 1.1 to 2.8).

Significance There are elevated injury risks in different segments of E-biker population. This differential should be addressed in future road safety initiatives. In addition, the findings also confirm the importance of road safety in the context of sustainable mobility.