**Introduction**
In Hong Kong, there are around 25,000 sports-related injury attendances at emergency departments each year, with 13.2% of them requiring hospital admissions. Its impact on the community and health care system represent a significant challenge. In order to identify service gaps in prevention and to meet these challenges, the Hospital Authority Central Committee on Trauma Service investigated the pattern and profile of sports-related injury attendances at the five trauma centers in Hong Kong in 2009.

**Objectives**
To study the characteristics of severe sports-related-injury attendances at the trauma centers in Hong Kong.

**Methodology**
This is a retrospective study of sports-related injury attendances at the five trauma centers from January 2009 to June 2009. AEIS (at least Cat III) data were integrated with the trauma registries from the five trauma centers. Injury classification for the types of sports, mechanisms of injury and outcomes were performed by personnel trained in injury coding methodology. A compiled dataset was constructed for descriptive, comparative and inferential analysis. Recommendation for prevention and service planning was then derived.

**Result**
There were 1,004 records identified during the six-month study period. The gender ratio (M: F) was 5.25:1. The mean monthly attendances were 166.67 + 22.63, which peaked on Sunday. The mean age was 25.36 + 14.36 years. Controlling for age, a significant difference was found between genders (P<0.001). The top three types of sports were football (33.25%, n=267), basketball (25.03%, n=201) and cycling.
The top three mechanisms of injury were fall (57.1% n = 499), contact with objects (19.8%, n=173), and contact with people (12.6%, n=110). Upper limb (47.89%, n=454), head & face (25.21%, n=239) and lower limb (20.15, n=191) were most susceptible to injuries. There were 32 (7%) cases classified as major trauma by incidence within the top five types of sports. The overall admission rate was 42.4% (n=426), and a significant relationship with the type of sport was identified (P <0.001). There were 1,652 bed-days consumed with no mortality, a monotonic relationship was found with age (rho = 0.17, P<0.001). Conclusion: This pilot study identified the pattern and case profile of sports-related injury in Hong Kong. Further in-depth studies are indicated to explore the nature of sports participation, the role of warm-up exercise, protective aids and environmental factors in order to formulate service planning for effective preventive considerations.