

## Epidemiology of Private Prehospital Calls over the Last Decade in South Africa

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**Abstract :** Introduction: The World Health Organisation has called on governments around the world to recognise emergency conditions as a global public health problem and respond with appropriate steps for effective preventative strategies. However, to understand the magnitude of the problem, good quality epidemiological data is required. This is especially challenging in low and middle-income countries, where routine data is scarce, specifically within the prehospital setting. Methods: We conducted a retrospective cross-sectional study of a national prehospital private sector EMS database. The database being the property of ER24 (private Emergency Medical Services (EMS) company in South Africa) contains claims submitted by the majority of ambulance services in South Africa during the period between 1 January 2008 to 28 March 2017. We used descriptive statistics and control charts to describe the data using STATA 14. Results: 299,257 calls were included in the analysis. The top clinical conditions requiring ambulance transport were transport accidents (10% of total call volume) and ischaemic heart disease (4.4%). The number of transport accidents consistently increased between 2009 and 2014 and reached beyond the limit for normal variation in 2015. Victims of transport accidents required basic life support services 60% of the time with 80% of injuries being minor to moderate. The frequency of ischaemic heart disease had a steady incline from 2011 to 2016. Advanced life support services were required about 50% of the time, with 60% of patients needing urgent care. Conclusion: Transport accidents, followed by ischaemic heart disease, are the most prevalent conditions in South African private EMS. There is a potential to address these conditions by developing the capacity of low and mid-level providers in trauma and advanced EMS providers in ischaemic heart disease.

**Keywords :** emergency care, emergency medicine, prehospital providers, South Africa

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