

Epidemiology of a South African private emergency medical service.

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Introduction: Globally, 5.8 million deaths per year can be attributed to emergency conditions. Up to 90% of these deaths occur in low and middle-income countries. South Africa is one of three African countries with both government and privately (e.g. fee for service) funded Emergency Medical Services (EMS). Stakeholders have limited local data to inform prehospital policy, research and service delivery agendas. The aim of this study is to describe the call characteristics of private EMS patients over the past decade in South Africa.

Methods: We conducted a retrospective cross-sectional study on a large database owned by a private EMS in South Africa. The database contained routine data (billing information and call criteria) from all emergency calls made to the EMS between January 2008 and March 2017.

Results: We analysed 299 257 calls between 1 January 2008 and 28 March 2017. The top

clinical conditions requiring ambulance transport during the eight-year period were transport accidents (10% of total call volume), ischaemic heart diseases (4,4%) and other external causes for accidental injury (4,1%). A total of 12,2% of patients required very urgent emergency care, 58,5% required urgent care and 29,1% required non-urgent care. Basic life support providers were dispatched 51,8%, while intermediate life support providers 34,9% and advanced life support providers 13,4% of the time. Primary calls contributed 77,6% and 22,4% were inter-hospital transfers.

Conclusion: This study is a first in its kind and illustrated a large burden of disease attributable to transport accidents, ischaemic heart diseases and other external causes for accidental injury. Further research, as well as clinical practice guidelines and policies should be focused on the effective management of these conditions in the pre-hospital setting