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An audit of chest pain and the factors affecting it in private emergency department

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An audit of chest pain and the factors affecting it in a private Emergency Department

A research report presented to the

Division of Emergency Medicine,

Faculty of Health Sciences,

University of the Witwatersrand

In partial fulfilment of the degree

Master of Science in Medicine (Emergency Medicine)

by

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Hereby declare the following:

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ABSTRACT

Background

Chest pain is an important and complex presenting complaint to the ED. McGraw-Hill[4], defines chest pain as a general term for any dull, aching pain in the thorax, usually referring to that of acute onset. This wide definition and the broad range of potential diagnoses make these patients a diagnostic challenge. The primary aim of the ED doctor is in diagnosing and excluding life-threatening causes, as failure to do so may result in serious consequences for the patient and doctor. Understanding various aspects specific to this chest pain population would assist in this evaluation.

Methods

Patients presenting with chest pain to an urban private ED in South Africa were identified from patient registers from 01 January to 31 December 2013. Patient data sheets were completed for each patients by evaluating gender, age, race, triage diagnosis, time of arrival, mode of transportation and disposition amongst other variables before analysis was completed.

Results

A total of 939 chest pain presentations were identified. 862 patient presentations were analysed. The largest age group represented was 30-39 years. Race distribution was 55.7% white, 30.1% black, 10.8% indian, 2.3% coloured and 0.23% asian. 55.1% of patient were male and 44% female .An average of 2 patient presentations was seen daily with 60.2% presenting during the day period and 39.8% at night. 81.7% of patients were triaged as orange, 7.3% red, 7.1% yellow and 2.6% green. 92.6% of patients arrived via non-medical transportation and 7.31% arrived via ambulance. Diagnostic groupings were as follows: No diagnosis (15.78%), cardiac (22.74%), respiratory (18.45%), gastro-intestinal (15.89%),

musculoskeletal (14.73%) and psychiatric/psychological (7.77%). 13% has life-threatening conditions. 70.53% of patients were discharged, while 22.97% were admitted.

Conclusion

Chest pain remains a complicated entity for ED evaluation. Understanding aspects of the patient population assist the ED doctor in guiding investigation and appropriate resource allocation. ED doctors actively work to exclude life-threatening causes. While there is no doubt that this is important, the low incidence in this population, raises the question of whether current systems may overemphasise this with a resultant high resource cost in terms of staffing, time and investigation.

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LIST OF ABBREVIATIONS

ED:	Emergency Department
ECG:	Electrocardiogram
SATS:	South African Triage Scale
TEWS:	Trauma Early Warning Score
RHT:	Refusal of Hospital Treatment