

ABSTRACT

Coronary Artery Disease: Epidemiology and Management in a Tertiary Hospital in South Trinidad

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Coronary artery disease (CAD) care is enhanced by improving the epidemiological profile and minimising the evidence-practice gaps (EPGs) in the management of patients.

This thesis includes separate studies that targeted CAD patients hospitalised at the only public health care institution in south Trinidad. Recruited patients comprised suspected acute myocardial infarction (AMI) or confirmed AMI cases. Data were collected using questionnaires, by face-to-face and telephone interviews, and from patients' medical records. Questionnaires on epidemiology, mortality, pre-hospital care, hospital care and quality of life were used. Statistical analyses were performed on data sets entered in SPSS with secure password to determine epidemiological variations and evidence practice gaps (EPGs) in CAD care.

The age of presentation of AMI in Trinidad was about a decade earlier than in high income or industrialised countries. The overall mean age (standard deviation) of AMI presentation was 58.6 (\pm 13.43) years. The mean age of AMI mortality was 70.5 (range: 40 to 93) years. The prevalence of traditional risks such as diabetes, hypertension, hypercholesterolaemia, ischaemic heart disease (IHD), and a family history of IHD was nearly twice that of developed countries. The mean pre-hospital delay (PHD) was 7.5 hours (evidence-based guidelines EBG: 90 minutes) with a patient delay of 3.5 hours (EBG: 5 minutes). No primary angioplasty was performed. Emergency thrombolysis occurred in 70.5% of eligible patients with 57.5% of thrombolysis occurring within 30 minutes. Prescribed EBG medication (aspirin, beta blockers, statins and an ACE inhibitor) for AMI exceeded 80%. Cardiovascular risk evaluation and surgical and non-pharmacological treatment (counselling, cardiac rehabilitation) were virtually absent. About 43.9% of patients failed to obtain echocardiograms. Discharge medication included an ACE inhibitor (64.6%), beta blockers (70.6%), simvastatin (75.3%), clopidogrel (79.0%) and aspirin (79.8%). There was little documented information on advice on lifestyle, activity, cardiac rehabilitation, and follow-up care. In-patient mortality was 6.5%; about 3 times higher than that of high-income countries. Physical, social and emotional quality of life (QOL) improved over time and was better in males and the young.

In conclusion, ages for presentation with AMI, or AMI deaths, were about a decade earlier than in high-income or industrialised countries. Evidence practice gaps in CAD management, except for pharmacological treatment, were quite high.

Keywords: acute myocardial infarction; coronary artery disease; epidemiology of CAD; evidence practice gaps; primary care; public health; secondary care; tertiary care; Trinidad (Trinidad and Tobago).