What is the nature of the disparity between the evidence-based practice and actual clinical practice for management of patients who present with suspected ST elevation myocardial infarction (STEMI) to smaller rural hospitals in the Northern Area of HNELHD?

What are the factors that are influencing clinical decision making by primary care providers in rural STEMI patients?

OBJECTIVES

1. What is the nature of the disparity between the evidence-based practice and actual clinical practice for management of patients who present with suspected ST elevation myocardial infarction (STEMI) to smaller rural hospitals in the Northern Area of HNELHD?

2. What are the factors that are influencing clinical decision making by primary care providers in rural STEMI patients?

METHOD

The study used a descriptive study design. All of the patients with STEMIs that presented through Tamworth Rural Referral Hospital (TRRH) Emergency department (ED) for the 2 calendar years 2016-2017 were identified. They included both local presentations and transfers from outlying hospitals. The patient medical records were reviewed to create a local database that included all patients eligible for thrombolysis but were not lysed within 4 hours of triage. This database was then expanded to include other data points such as demographics and clinically relevant information. On completion of this database, statistical analysis informed us to the specifics of this population and identify any commonalities that may exist such as anatomical location of the STEMI

Relevant data was then included in the cover letter for a survey distributed to the General Practitioner Visiting Medical Officers (GPVMOs) in this area. Information from the database also informed questions for a survey. This survey was designed to ascertain factors that may contribute to delays in the care of the STEMI patient.

RESULTS

Of the 139 STEMI patients over the two year period, 15% of eligible patients were not diagnosed as STEMI to receive thrombolysis within 4 hours of presentation to the Emergency Department. On surveying GP VMOs within these ED's on their management of STEMI patients, gaps were identified in clinical knowledge, operational processes and support mechanisms. This ranged from ability to interpret ECGs competently for all types of STEMI to lack of understanding of escalation and transfer processes.

CONCLUSION

Several barriers to timely STEMI management were identified despite the provision of appropriate equipment, evidenced based medicine policy, transfer process flowcharts and consultation availability. There is opportunity from here to address knowledge deficits around all aspects of the patient journey with the view to improve STEMI outcomes.

Without addressing the gaps in service delivery, the unacceptable delays in STEMI management in rural health services may continue to exist. Patients with missed STEMI are at higher risk of morbidity and mortality and increased length of stay. This in turn, can be added burden to the patient, carer and health service.

KEYWORDS

STEMI, Australia, rural, Acute Coronary Syndrome, evidence based practice

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Helen Orvad is in her 34th year of nursing for Hunter New England Health. Her career has encompassed medical, Intensive Care, Coronary Care and Retrieval nursing, and Interventional cardiology clinical and management roles. Her district role as Clinical Nurse Consultant for Cardiology has identified several issues around management of rural cardiac patients. It is this work that the need for this project on the disparity of STEMI management developed.

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