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TRANSLATIONAL RESEARCH

Prehospital thrombolysis and transfer improves outcomes in segment elevation myocardial infarction Hunter New England Local Health District

Previously, a patient's treatment of Myocardial Infarction (MI) could only be commenced once the patient arrived at hospital. This project shows all patients, regardless of where they live, can begin treatment of their MI in the back of an ambulance using a mobile phone, with excellent results. Two well described methods of reperfusion strategies for the treatment of MI were examined: Prehospital Thrombolysis and Primary Percutaneous Coronary Intervention.

The innovative reperfusion strategies conceived and implemented collaboratively by Hunter New England Health and NSW Ambulance has allowed early identification and treatment of myocardial infarction which carries a high mortality rate if left untreated.

There has been an increased focus on achieving a significant reduction in time to treatment for patients having MI. By developing a reliable method of communication between cardiologists and paramedics, we are able to diagnose and treat patients more effectively recording an average time from Triple Zero call to the administration of thrombolytic medication as 48 minutes. This is usually not achievable under any standard operating protocols. This systemic change ensures patients living in rural and remote areas have early access to treatment and intervention for their infarct.

System strategies designed to improve reperfusion have clear and well-defined



clinical outcomes in terms of morbidity and mortality, reduced length of stay, and reduced 28-day readmission. This project assisted with ETP targets, including reduced rate of admission to hospital emergency departments due to early identification of treatment, and subsequent early redirection to the source of the most appropriate hospital. This direct admission process to the cardiac catheterization lab, allows patients to bypass the emergency department. This dataset demonstrates timely access to treatment with improved patient clinical outcomes.

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