Every Second Counts – Pre Hospital Assessment for Primary Angioplasty
Integrated Health Care

Introduction
Delays in primary Percutaneous Coronary Intervention (PCI) after a patient arrives at hospital are associated with higher in-hospital mortality in those admitted with ST elevation myocardial infarction.

Aim
To decrease from 100 minutes Door to Balloon times for patients with Primary Angioplasty admitted to Wollongong Hospital (WH) to within the national benchmark of <90 minutes, within six months.

Method
Strong collaboration established between NSW Ambulance and Wollongong Hospital.
Installation of technology into NSW Ambulances enables transmission of electrocardiograph.
Purchase of PCs for ED, Cardiac Diagnostic Centre and the CCU, act as primary notification for the transmission of ECGs from the ambulances.
On call cardiologists provided with iPhones capable of receiving ECG images.

Results
Since the introduction of the Pre Hospital Assessment for Primary Angioplasty (APA) model of care, door to balloon time for primary PCI at WH has reduced to 47 minutes (53% improvement). See Figure 1.

In addition to the significant improvements in Door to Balloon times, the Arrival to the Cath Lab from presentation to Wollongong Hospital times has also significantly reduced. See Figure 2.

Conclusion
Wollongong Hospital now provides world class access to services for patients requiring reperfusion therapy. This is demonstrated by achieving consistent Door to Balloon times well below the world benchmark of 90 minutes.
Open communication between Ambulance Services and Hospital staff remains a key factor in this project’s success.

Acknowledgements
This project was supported by the Ambulance Service of NSW and the Agency for Clinical Innovation.
Special acknowledgements go to:
Director Cardiology: Dr Astin Lee
Project Sponsor: Ms Nicole Sheppard
ISLHD Cardiac Reperfusion Implementation Committee
Wollongong Hospital Cardiology Unit
Wollongong Hospital Cardiac Diagnostic Centre
Wollongong Hospital Emergency Department

Figure 1 – Wollongong Hospital door to balloon times between 2008 and 2013

Figure 2 – Arrival to the Cath Lab from Presentation to Wollongong Hospital