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# Undergraduate nursing students improving Time to Treat

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## Summary

Category 2 walk-in chest pain patients are at the highest risk in the Emergency Department (ED) waiting room because of an inability to access electrocardiogram (ECG) within recommended timeframes due to lack of resources, including staffing, equipment and treatment space. Only one waiting nurse is responsible for all waiting patients - acute and ambulatory - which at times can be 30

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patients and sometimes up to 60. On Average, only 45% of Category 2 arrivals who self-present are seen and have treatment commenced in time. Underegraduate students in Nursing (USiN) have limited scope and are taught a set skill, but they are enthusiastic for workplace exposure. Because registered nurses do a more thorough assessment and work-up, it can be inefficient in the Emergency Department (ED) waiting room to perform an ECG, where the main task is to assess the risk to patients. USiNs take about 10 minutes to complete an ECG, whereas registered nurses can take double that amount of time because of thorough patient history documentation. In this project, Logan ED have employed USiNs under an 'ECG Technician' type model and new role descriptions were developed to align and compliment other waiting room initiatives. The USiN role was designed to perform ECGs on all Category 2 chest pain patients. Role specific education was developed and commenced as two shifts per day, seven days a week.

## Key dates

Aug 2022

Jul 2023

## Implementation sites

Logan Hospital

## Key Contacts

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## Aim

To improve time to treat for Category 2 Chest Pain walk-in patients in Logan Emergency Department.

## Benefits

The primary benefits of the project is that patients are provided care within a timely manner and have improved quality of care. Patients with ST-Elevation Myocardial Infarction (*STEMI*) get pulled from waiting room within minutes and treatment commence in a resuscitation bay. Using a USiN to perform the task of an ECG, similar to a technician position, has freed up nursing time to perform critical prioritisation within the waiting room. From a fiscal point, the USiN is also more cost effective to add to a workforce already stretched from a budget perspective.

## Background

Approximately two thirds of Logan ED's 104,000 annual adult presentations arrive via the front door, known as walk-ins. Access block often results in the patient experiencing lengthy delays in the waiting room prior to receiving treatment.

Both ED staff and clinical incident analysis identified the waiting room as an area of high clinical risk because waiting room patients represented the most vulnerable cohort in the whole ED as they have had no treatment commenced. Patients who arrive by ambulance have already had some treatment or care. This vulnerable cohort who self-present with chest pain at Logan Hospital was the focus of the project.

## Evaluation and Results

- Post implementation an average of 86% of Category 2 Chest pain patients have an ECG performed and reviewed within 15 minutes of arrival.
- Since the project commenced in August 2022, Logan has had no significant clinical incidents reported from the waiting room cohort. In fact, we have actually had early recognition and diagnosis leading to intervention and transport to Catheterisation Laboratory at Princess Alexandra Hospital within treatment time.
- The significant win is positive patient outcomes and decrease patient harm.
- Workforce future proofing – All USiNs have applied for graduate programme within the ED.
- The USiNs are work-ready and have great experience before they commence as Registered Nurses.

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## **Lessons Learnt**

Take into account the rosters of students due to their commitments at university and placement. Take into account when students finish their degree because they cannot be then employed in technical role. Contemplate a change process for waiting room nurse, as now they effectively became a team leader.

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