

# St John of God: Using e-triage to reduce emergency wait times



Dr Nicole Ghedina, lead researcher and emergency physician

With strained and overcrowded hospital emergency departments (EDs), patients often experience prolonged triage waiting times. This can increase their risk of clinical deterioration prior to accessing medical care, particularly in urgent cases.

Dr Nicole Ghedina is researching how to decrease pre-triage waiting time and improve clinical care for ED patients, using an electronic triage kiosk system with direct patient data entry. This will replace nurse-performed verbal and physical assessment but allow for simultaneous nurse-performed data entry.

"We aim to study whether the introduction of a patient self-registration and triage electronic kiosk decreases the door-to-provider time for ED patients with urgent care needs," Dr Ghedina explains.

"We also plan to review how the introduction of electronic triage kiosks impacts on pre-triage wait time, patient satisfaction, staff satisfaction, time to treatment and clinical outcomes for emergency department patients."

## Successful e-triage systems overseas

Dr Ghedina became interested in researching ways to improve triage waiting times after audits showed delays during peak activity times, and observing how e-triage kiosk systems have improved speed of care in overseas hospitals.

The research is being conducted in Dr Ghedina's busy urban district general hospital treating ~77,000 ED patients each year. In a pilot audit, they demonstrated a median triage wait time of 17 minutes, and longer during periods of high demand.

"Triage is a crucial part of the process of emergency department patient care. We were concerned that prolonged wait times may represent a delay to clinical care for people with urgent care needs," Dr Ghedina says.

"E-triage kiosk systems have been introduced in overseas hospitals with improvements in time to care. We plan to implement a patient self-registration and e-triage kiosk system to our ED. This technology has not been widely used in Australia, so we are interested to study the outcomes from the implementation."

## Spearheading improvements to ED patient care and outcomes

Dr Ghedina says the Avant Foundation grant will allow this important research to be conducted, improving triage processes in the hospital ED and the services offered to the broader local community.

"We will use the funds to undertake community consultation prior to implementation of the e-triage system, to employ a research assistant to study the effects of the implementation of the system, and to write up and disseminate the results of our study," she says.

"As this is a novel technology in Australia, other EDs may be interested to understand our experience and consider innovations in their own hospitals."

*Dr Ghedina of St John of God was the lead researcher of the project that received an Avant Foundation grant. She is the director of emergency medicine research at St John of God Midland ED.*



Patients with urgent care needs may be able to access the care that they need sooner. There may also be other improvements in patient safety including the chance to interact with the ED information system in languages other than English."

Dr Ghedina