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Time to care? How Emergency Departments are saving vital minutes with cloud-based speech recognition

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Australia's EDs are under increasing pressure from forces beyond their control. But cloud-based speech recognition technology is now helping some EDs to work faster, increase patient throughput, and safeguard the wellbeing of their staff and the populations they serve.

If you want to take the pulse of any health system, you visit its emergency departments (EDs). And in Australian EDs, the symptoms of wider, systemic challenges are currently all too clear.

There's the high number of presentations. As Clare Skinner, President of the Australasian College for Emergency Medicine (ACEM), told ABC News earlier this year, "Emergency departments have become the safety net of the entire health and social services system, so when there are problems elsewhere in the system we'll see people increasingly present to the emergency department."

But there's also the restricted flow of patients—from the those stuck in ambulances, waiting to be seen by overstretched ED staff, to those stuck in the ED, waiting for an available bed. These long wait times naturally add to patient stress and frustration. And beyond a certain length of stay, they've been associated with increased patient mortality.

Individual EDs are limited in their ability to treat systemic issues. They can't immediately alter the number of beds available in their hospital, or inspire more people to train for a career in emergency care.

But EDs can take steps to alleviate the symptoms, like restricted patient flow, by using technology to save their staff vital moments, and free them to see more patients.

Our new white paper unpacks the factors restricting patient flow in Australia's EDs, and explores how one

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technology—AI-powered cloud-based speech recognition—is helping EDs to create more efficient workflows and ultimately improve quality of care.

What's restricting patient flow: Bed blocking

When there aren't sufficient beds available on an inpatient ward, the sickest ED patients will remain in the ED, reducing the ED's capacity in turn.

This phenomenon, also know as 'access blocking', has become much more prevalent in recent years—something that's reflected in a sharp rise in the time patients spend waiting for admission. In 2016-17, 90% of ED visits for patients subsequently admitted to the hospital were completed in 10 hours, 44 minutes. By 2021-22, this had risen to 15 hours, 37 minutes.

What's restricting patient flow: Staff shortages

Patient flow is also restricted by the size of ED teams—and the Australian healthcare system is currently facing staff shortages across the frontline. It's estimated the shortage of nurses will reach 100,000 by 2025, an estimate made before many were driven out of the profession by the stresses of the pandemic.

When an ED's staff are at capacity, ambulances are unable to transfer patients to their care. Ambulance 'ramping' has become an increasingly common sight outside Australian ED, with the time taken to transfer patients from ambulances to the ED increasing year on year.

What's restricting patient flow: Overcrowding

With limited ED staff to treat incoming patients, and limited hospital beds for those who need to be admitted, it's all too easy for EDs to become overcrowded. And to make matters worse, there are simply more patients to see.

The number of patients turning to EDs for medical assistance has been growing faster than the population. In 2021–22, 8.79 million individuals sought treatment in the EDs of Australia's public hospitals.

Finding more time to care with cloud-based speech recognition

Individual EDs may not be able to magically increase the size of their teams, the number of beds in their hospitals, or volume of patients arriving at their doors. But some are still finding ways to open up their restricted patient flows, and safeguard the wellbeing of both patients and staff.

In the ED, every minute is precious. And a lot of minutes have traditionally been spent typing—whether to document care, or order tests and materials. Now, some EDs are using cloud-based clinical speech recognition solutions to help staff complete these essential tasks much faster, using their voice.

Dr Andrew Brier, an Emergency Physician at Mackay Base Hospital, has been using the award-winning, cloud-based speech recognition Dragon Medical One.

"The time savings are going to be drastic, particularly in a very busy ED," says Dr Brier. "State average is probably around 25%–30% presentations get admitted, so 70%+ of people go home from the ED. If we can document their journey quicker, we can do their referral letter quicker, we can get them out and free up those beds, reduce the times in the waiting room and improve patient satisfaction."

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>
> *– Dr Andrew Brier, Emergency Physician, Mackay Base Hospital*

As Dr Pieter Nel, Mackay's Chief Digital Director Medical Services explains, even small time savings can rapidly add up over the course of a busy shift. "We talk about at least two minutes per patient being given back to every clinician, which is a 30% reduction of time spent on documentation," says Dr Nel. "At the end of the day, it can mount up to quite a considerable amount of time you as a clinician can get back."

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The additional uplift in documentation quality

Using Dragon Medical One to capture information in real-time, directly into the integrated electronic medical record, also supports the creation of more complete and detailed clinical notes.

"When you document in real-time, you remember the finer details and you've done it in a structured way. That improves the quality of the notes, and it improves the coding system," says Dr Nel. "We also find that our notes are much more comprehensive, longer, with more details, but we still gained that two minutes."

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>
> *– Dr Pieter Nel, Chief Digital Director Medical Services, Mackay Health Service*

Dive deeper with Dr Brier and Dr Nel

As well as a deeper dive into the challenges Australian EDs face, our white paper features much more from Dr Brier and Dr Nel. They reflect on the power of speech recognition technology to impact everything from an ED's relationship with local GPs, to its staff's work-life balance.

I'd encourage you to download the full paper and explore their insights.

Tags: Dragon Medical One, Future of healthcare, Clinician wellbeing

About Dr. Simon Wallace

Dr. Simon Wallace is the Chief Clinical Information Officer (CCIO) of Nuance's Healthcare division in the UK and Ireland. Simon has worked as a GP, hospital and public health doctor in Brighton and London. His interest in health informatics began in the 90s when he spent a year at the King's Fund investigating the impact of the internet on shared decision making between patients and their healthcare professional. For the past 15 years, he has worked for a range of organisations including Bupa, Dr Foster, Cerner Corporation and GSK across a range of technologies which include electronic patient records, telemedicine, mobile health and lifestyle devices. Simon has a keen interest in the voluntary sector, recently completing a 7 year term as a Trustee for Fitzrovia Youth in Action, a children and young people's charity based in London.

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