

The benefits of speech-enabling your clinical documentation

We examine the benefits for individual healthcare professionals, patients and Australian healthcare overall.

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The pressure is on for healthcare teams and organisations to improve the quality of clinical documentation ensuring continuous, uninterrupted patient care especially during difficult times.

For healthcare professionals, high quality, accurate, up-to-date patient records enable better teamwork and collaboration, support for point of care decision making, and boost efficiency enabling clear and complete information exchange in a timely manner. For patients access to their own health data is key. Complete records enhance communication, trust and continuity of care leading to better outcomes and improved safety. For everyone in Australia's healthcare system, comprehensive clinical documentation makes claiming and budgeting more efficient and improves regulatory, legal and financial reporting and sharing relevant information with My Health record easier. Good quality clinical documentation captures the full patient story and is a rich source of relevant data (once patient privacy has been assured) that can be shared into My Health Record for medical research that benefits the whole community.

Challenge

How can we make it easier and quicker for doctors, nurses and other health professionals to meet high clinical documentation standards and provide exceptional care to patients?

Stay ahead of evolving healthcare

Digital technology is facilitating and disrupting healthcare at an unprecedented rate.



More than two-thirds of Australian GPs now exclusively use electronic medical records.¹

However, despite extensive investment and widespread computerisation, many healthcare professionals are struggling to harness the full benefit of a paperless system.²

Health professionals under pressure

Australian healthcare professionals have been at the frontline dealing with the pandemic while bearing the brunt of tighter resources, high-quality services, maximising bed utilisation, rising costs, greater treatment complexity and new ways to deal with escalating patient expectations, i.e., telehealth. More than 4.3 million health and medical services have been delivered to a total of more than three million patients through the telehealth items introduced by the Australian Government for the COVID-19 pandemic. The number of telehealth consultations has rapidly expanded, to more than 700,000 in the 2nd week of April 2020³. Remote patient monitoring, telehealth and advanced analytics can transform an existing healthcare organisation into a cost-efficient delivery system that engages more with patients for improved quality and outcomes.

An Australian qualitative investigation says that the documentation practices of clinicians are complex causing duplication and redundancy⁴.

The heavy documentation load also poses a risk to crucial doctor-patient relationships. Focus inevitably shifts to the device rather than the patient, as clinicians scroll and hunt through screens in all the various clinical software, navigate pull down menus and check boxes, and labour over their typing.

Factor in the effort needed to complete all the requisite paperwork and there is a real risk that the essence of the patient story becomes overly distilled. So often, the nuances of the patient journey can disappear replaced instead with a collection of unconnected data points.

Maintaining high-quality electronic medical records during the pandemic outbreak is not a simple task. An Australian study published by Melbourne institute shows that 96% of GPs were using telehealth compared to 76% non-GP specialists during the pandemic leading to an increase in the services provided.⁵

Healthcare teams use of technology surges in the face of COVID-19.⁶ They need to incorporate health information from different sources into the local medical records efficiently and in a manner that supports patient confidentiality, quality clinical handover and effective continuity of care.

Accessing reliable and accurate information at the right moment is crucial to provide consistent snapshot about patients health status and ensure appropriate care in these difficult times. ADHA said My Health Record already makes “critical health information available when it’s most needed”.

As of November 2020, 95% of GPs are registered to My Health record, 96% of public hospitals⁷ and 90.1% of

those eligible for Medicare participating in the system at the time of record creation.⁸

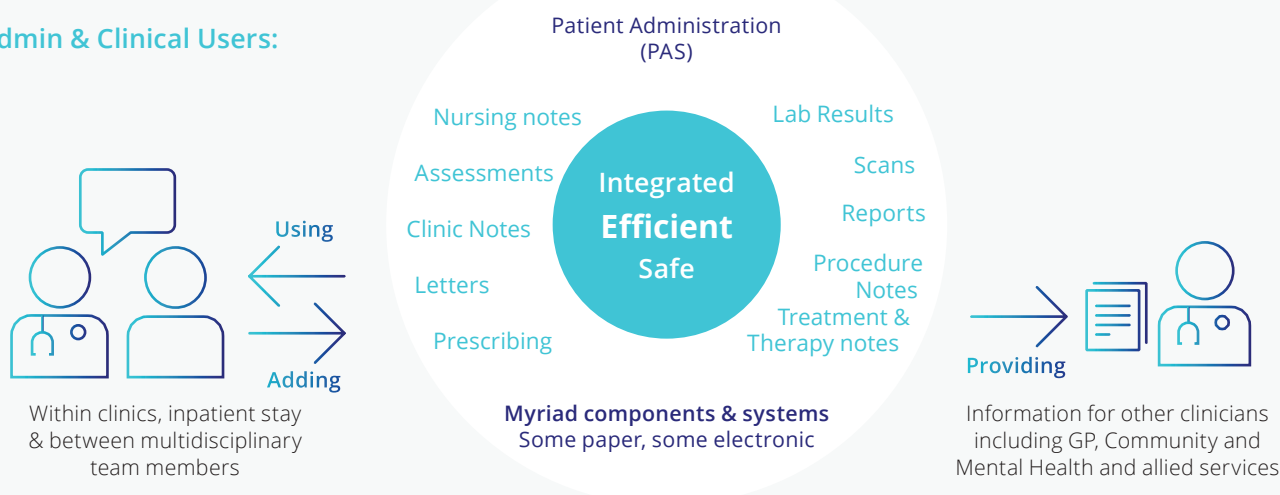
The growing demand for comprehensive, high quality documentation is adding to the pressure. With clinicians overload and shortages on the rise, the interest for improving clinical documentation, workflows, and EMR optimisation are vital. Real-time patient data at the point of care can improve results. Healthcare organisations using speech recognition are aiming improvements in several categories, including reduced transcription costs, reduced documentation time, and more complete patient narratives.

An Australian Medical Association survey on red tape says doctors spend nine hours a week on administrative duties and four hours on Government paperwork alone, at a cost of around \$15,000 a year in lost income.⁹ A study published in the Medical Journal of Australia shows more than 12% of GP4 consultations involve additional unbillable time arranging tests and referrals, consulting specialists or allied health professionals, medication renewals, and advice and education, all of which require documentation. If claimable through Medicare, the value of this time ranges from \$10,000 to \$23,000 per annum per GP¹⁰ - a significant drain on practice income and our fee-for-service system.

Secondary Users:



Admin & Clinical Users:



Understand the clinical process impacts of documentation in acute care.
Source: Accuracy and completeness of clinical documentation Report June 2015.¹³

AI Speech recognition - tomorrow's solution today

Automated speech to text software works with all kinds of record-keeping applications, from the GP desktop and office software, to electronic health records (EMR) and Patient Administration Systems (PAS). In a report from the UK's Nuffield Trust¹¹ on the benefits of digital healthcare, 'voice-recognition' technology is highlighted as one of the most obvious ways healthcare professionals can reduce the time spent on routine communication and administrative tasks.

In Australia too, speech recognition technology is helping to bring Australia's plans for a truly integrated digital health network to life. Great strides have been made in the quality, accuracy, performance and affordability of clinical speech recognition tools and healthcare uptake is growing fast as more users experience its speed, efficiency and ease of use.

Why does AI speech-enabled clinical documentation make sense now?

For the healthcare professionals

The time healthcare professionals dedicate to interacting directly with patients is shrinking and can account for less than 13 per cent of their day.¹² In addition, research shows that healthcare professionals spend more than 50 per cent of their working day creating, reviewing and updating clinical documentation.¹³

50%

or more is the time doctors and nurses spend with clinical documentation processes.¹³

In the US, a busy doctor can produce enough clinical documentation to fill 40 books of 400 pages each year – the equivalent of 7.2 million words.¹⁴ Several studies performed in 2018 in the Netherlands showed that doctors spent half of their time writing clinical notes leading to less time for patient care. Doctors want to keep the percentage of work that is spent on documentation tasks as low as possible. Recent research suggests the use of AI solution to help care teams saving time.¹⁵

Quality time with the patient

AI speech recognition technology allows healthcare professionals to capture patient data and complete clinical documentation more than twice as fast as typing and with greater accuracy and completeness.¹⁶ Using voice to text, users can navigate more quickly in the electronic documentation, use advanced voice commands to automate repeat functions or jump to specific screens, call up pre-configured templates and associated documents, and insert often repeated standard texts. Virtually all mouse actions can be replaced with voice commands and tailored to create a completely personalised workflow. Practitioners who are using Nuance's Dragon Medical speech recognition solutions report significant time savings – from 40 minutes for a nurse on an intensive care ward¹⁷ to as much as 2 hours in a typical day at the surgery for a GP.¹⁸

Despite all the extra work and time pressures, healthcare professionals want time to understand the complexities of each case, listening to and counselling patients, putting them back at the centre of care. Patients too highly value having sufficient opportunity for discussion, advice and recommendations, privacy and engagement with their healthcare provider.¹⁹

Speech-enabling clinical documentation not only saves time but also frees the healthcare professional from their keyboard and the screen, enhancing their communication and relationship with their patients.

Quality documentation

The use of speech recognition improves the quality of documentation by reducing repetition and the potential for errors and eliminating duplication of effort. Not only does it streamline the process of recording 'structured' information in forms and health records but speech recognition also encourages healthcare professionals to document the patient story (narrative) more fully, including all its subtleties and uniqueness.

UK study¹³ shows 68 per cent of clinical documentation is narrative. The rate at which speech recognition speeds record creation demonstrates its potential to improve both the volume and quality of time available for patient care. A complete, detailed patient record that goes beyond basic facts makes it quicker and easier for healthcare professionals to share vital information and helps guide and speed the transfer of care as patients move along the care pathway, from triage to consultation, referral and discharge.

Satisfaction at work

A substantial 80 per cent of healthcare professionals say good patient relationships are the most satisfying part of their job.¹² However, many are becoming de-motivated and frustrated because of administrative overload and a consequent lack of time to spend with patients.¹²

AI-powered speech-recognition improves the day-to-day working lives of healthcare professionals by enabling them to produce real-time, detailed, accurate clinical records as quickly as they can think and speak. It puts them in control, giving them more time to focus on patients, confident that the documentation they produce sets the standard for better quality care.¹²

"Speech recognition has raised the bar on the quality of our clinical notes. There is much more detail, the notes are easier to read and the quality of the information is so much better."

— Peter White, Paediatric Intensive Care Unit Nurse
Alder Hey Children's Hospital

"Thanks to the time speech-recognition saves me, I can now see four or five more patients during the day, and the more patients I can see, the better this is for our patients and, commercially, for the surgery."

— Bhagyesh Patel, General Practitioner
Station Medical Clinic, Chatswood, NSW

"Today I dictate the conversation I had with the patient right after their consultation. The technology has definitely made my life easier. The accuracy is great. It copes perfectly well with my Scottish accent. I have to say that I love it."

— Professor Peter Illingworth, IVF Australia, NSW

For the patient

The relationship between healthcare professionals and patients is at the heart of all treatment and healing. This begins with good communication and personal interaction but all too often, technology and the pressure to record the consultation in regimented templates and forms, gets in the way.

A patient survey¹⁹, commissioned by Nuance to identify what patients want and need from their doctors, indicates that patients are comfortable with the growing role health IT is playing in their care. However, they are less accepting of technology when it distracts or diminishes conversation time with their healthcare professional. The study shows that 40 per cent of patients feel rushed during a visit to their doctor. For more than 30 per cent, an appointment lasts less than 10 minutes – the time it takes to hard boil an egg.

Quality time

Using speech-enabled clinical documentation frees healthcare professionals from significant red tape and gives them more time to observe, listen and interpret the patient's story thereby putting the patient firmly back at the centre of care.

68% of clinical documentation is narrative and difficult to capture in the standard templates and click boxes of an EMR.

Speech enablement also encourages complete capture of the patient story – both the detailed narrative as well as the “structured” data pre-set forms and templates require. For complex cases, where patients require multiple treatment protocols and the support of multi-disciplinary teams, the whole team benefits from having a fuller and more accurate picture of the patient and their needs which leads to improved treatment co-ordination and better results.

Continuity and quality of care

Speech-enabled clinical documentation not only frees up healthcare professionals' time and ability to focus on the patient, it also helps improve care. As patients hear what is being said and recorded in their notes during a consultation, they become more informed and engaged in their own case management. Consequently, they are more likely to actively participate in treatment and to experience improved health outcomes.

For Australian healthcare

Digitised clinical documentation is the cornerstone of Australia's vision for a fully-integrated national eHealth network that will deliver productivity benefits for healthcare and quality outcomes for patients. Ongoing investment by all Australian Governments in the My Health Record shared EMR demonstrates their commitment to this vision and the pressure is on to show how this investment is paying off in today's tough financial environment.

\$15,000

a year in lost income is the cost to Australian GPs who are spending 2.5 hours each week on non-billable patient care.⁹

Accelerate adoption of eHealth

There are technical and cultural barriers to the uptake and adoption of the My Health Record and other shared record systems but simplifying and naturalising the user interface, using speech to input the data, removes the greatest barrier of all – that of overloading the healthcare professional with more administrative red tape.

AI powered speech recognition technology is fast becoming one of the most used tools in the quest for eHealth adoption because it improves clinical documentation, anywhere, any time, and on any device. It puts healthcare professionals back in control and ensures that there is faster and greater take-up of the national system to more quickly return the investment.

\$10,000-\$23,000

per annum per GP is the cost of unpaid time spent on patient care, if it was claimable through Medicare.¹⁰

Improve efficiency, productivity and turnaround times

Research from the UK has found that healthcare professionals spend up to half their day creating and updating clinical documentation, and another 52 minutes a day⁷ searching for information they cannot find in shared clinical records.

- Speech-enabled clinical documentation supports the creation of a more complete and accurate patient record at the point of care.^{12, 17, 19} This offers important flow-on benefits by reducing the incidence of missing information, improving communication between providers and enhancing the patient experience.
- The use of speech-recognition integrated into health records and other clinical documentation also improves individual productivity for healthcare professionals, freeing them from the burden of administration to focus on more patient-centred, higher value tasks.^{17, 18, 19}
- Speech-enabled clinical documentation helps eliminate paperwork backlogs because referral letters, discharge letters etc can be created, signed and forwarded at the point of care. This enables organisations to achieve turnaround targets and minimises inefficiency related to clinical documentation and communication between healthcare organisations and patients.
- High quality clinical records also deliver more accurate coding for quicker claiming and reimbursement and make it easier to meet regulatory, legal and financial reporting requirements. For medical research, high quality clinical documentation provides a rich source of data (once patient privacy is assured).

Employee satisfaction

Speech-recognition integrated into clinical documentation can help to avoid burnout. According to Beyond blue, Australian doctors are exhibiting high levels of burnout including emotional exhaustion (32%) and cynicism (35%)²⁰ and almost half of all Australian young doctors may be suffering from burnout according to a major mental health survey.²¹ During the COVID-19 pandemic, Australian healthcare workers self-reported moderate-to-severe symptoms of depression, anxiety and PTSD (21%, 20% and 29%, respectively).²²

Recent study²³ in the USA showed that nurses using front end speech recognition have spent less time on documentation and completed their chartings more quickly. Healthcare professionals begin to feel better about documentation, more in control and more satisfied at work. They feel more confident about technology and have a better experience. Now the 80% of healthcare professionals who find patient relationships are the most satisfying part of their job¹² are free to get back to practising the art of medicine.

LEARN MORE

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- 1 General practice activity in Australia 2013–14. General practice series no. 36. Britt H et al, Sydney University Press, November 2014 https://ses.library.usyd.edu.au/bitstream/2123/11882/4/9781743324226_ONLINE.pdf
- 2 The eHealth Readiness of Australian Medical Specialists, Department of Health and Ageing, Australian Government, Canberra, May 2011 [www.health.gov.au/internet/publications/publishing.nsf/Content/ehealth-readiness-medical-specialists-toc/\\$FILE/Medical%20Specialist%20ehealth%20readiness%20survey%20report.pdf](http://www.health.gov.au/internet/publications/publishing.nsf/Content/ehealth-readiness-medical-specialists-toc/$FILE/Medical%20Specialist%20ehealth%20readiness%20survey%20report.pdf)
- 3 <https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/australians-embrace-telehealth-to-save-lives-during-covid-19>
- 4 A qualitative investigation into clinical documentation: why do clinicians document the way they do? July 9, 2020 <https://journals.sagepub.com/doi/abs/10.1177/1833358320929776>
- 5 https://melbourneinstitute.unimelb.edu.au/__data/assets/pdf_file/0003/3436014/UoM-MI-ANZ_Brochure-FV.pdf
- 6 Australian Digital Health Agency, Media release, 23 June 2020
- 7 My Health Record November 2020 statistics and insights
- 8 My Health Record: Connecting Australians with their own health information September 6, 2019
- 9 The Red Tape Emergency. Article. Medical Journal of Australia online. McGilvray A. 2014. Accessed on 30 January 2017 www.mja.com.au/careers/200/2/red-tape-emergency
- 10 Estimating non-billable time in Australian general practice. Research. Henderson J et al. Medical Journal of Australia 2016; 205 (2): 79-83. Accessed on 30 January 2017. www.mja.com.au/journal/2016/205/2/estimating-non-billable-time-australian-general-practice
- 11 Delivering the Benefits of Digital Health Care, Nuffield Trust Research Summary, February 2016 3 'Healthcare from the patient perspective. www.nuffieldtrust.org.uk/sites/files/nuffield/publication/nutj4099_healthtechsummary_17.2.16_web.pdf
- 12 In the footsteps of the time thieves: The underestimated burden of clinical documentation in German acute care hospitals, Research Report, HIMSS Analytics Europe March 2015 <http://engage.nuance.de/himss-klinische-dokumentation>
- 13 Accuracy & completeness of clinical documentation. Understanding the clinician, patient and economic implications in NHS England acute trusts; Ignetica Ltd, June 2015 <http://engage.nuance.co.uk/study-nhs-trust-clinical-documentationchallenge>
- 14 4000 Clicks: a productivity analysis of EMRs in a community hospital ED, Hill, Robert G. et al., The American Journal of Emergency Medicine, Volume 31, Issue 11, 1591 – 1594 www.ncbi.nlm.nih.gov/pubmed/24060331
- 15 <https://www.thieme-connect.de/products/ejournals/abstract/10.1055/s-0037-1615747>
- 16 Analysis of Documentation Speed Using Web-Based Medical Speech Recognition Technology: Randomized Controlled Trial - Markus Vogel, Dr med. Wolfgang Kaisers, Dr med. Ralf Wassmuth, Dr med. Ertan Mayatepek, Dr med. Published on 03.11.15 in Vol 17, No 11 (2015): November, Journal of Medical Internet www.jmir.org/2015/11/e247
- 17 Alder Hey Children's Hospital Frees Up Time to Care, Case Study www.nuance.co.uk/ucmprod/groups/healthcare/@web-enus/documents/collateral/nc_041370.pdf
- 18 How speech recognition can save GPs up to two hours per day www.practicebusiness.co.uk/Practice-Business/articles/sponsored-blog-how-speech-recognition-can-save-gps-up-to-twohours-per-day
- 19 The role of the Art of Medicine in a Digital World, Nuance Commissioned Research 2015 www.nuance.com/ucmprod/groups/healthcare/@web-enus/documents/collateral/nc_031636.pdf
- 20 <https://www.hospitalhealth.com.au/content/technology/article/how-ai-can-help-prevent-physician-burnout-795180905>
- 21 <https://www.avant.org.au/member-benefits/doctors-health-and-wellbeing/your-health/physical-and-mental-wellbeing/dealing-with-burnout/>
- 22 <https://journals.sagepub.com/doi/full/10.1177/1039856220965045>
- 23 <https://www.healthcareitnews.com/news/pandemic-era-burnout-nurses-trenches-say-technology-hurts-and-helps>



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