Ambient AI Scribes

Sector Advisory – May 2025

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1.0 Introduction

Ambient artificial intelligence scribes (AI Scribes) are intelligent documentation support systems that leverage speech recognition and AI including natural language processing (NLP), generative AI and machine learning (ML) to automate documentation of the spoken aspects of a clinical encounter. These solutions use ambient listening to capture the audio of a clinical encounter and speech recognition technology to convert the captured audio to a verbatim transcript. AI is then used to identify, extract and summarise information from the transcript into the format of a clinical note before being incorporated within the patient's medical record or electronic health record (EHR).

Digital transcription tools that reduce the burden of clinical documentation are already in frequent use across Victorian public health services (VPHS). These solutions are front-end speech recognition tools that leverage traditional AI techniques, including NLP to convert spoken words into text in real-time, allowing healthcare providers to dictate patient notes and documentation directly into EHRs.

While AI scribes have been available for the last 4-5 years in the U.S. market, the recent advancements in availability and maturity of large language models have resulted in an increase in AI scribe availability and maturity globally. The market in Australia currently includes a mix of new entrants, including start-ups, and existing vendors, such as EHR and digital transcription vendors expanding solution offerings. This presents added complexity, as products that incorporate AI scribe capabilities may be introduced via product updates and thus may not be subjected to the governance and oversight as would be applied through a formal procurement process.

Early studies in the use of AI scribes in the healthcare setting have demonstrated that they can produce high quality clinical documentation for clinician editing[1]. Benefits reported include reducing clinical documentation time, clinician burnout/stress and cognitive load, enabling more personal and effective patient interaction[1,2,3,4].

2.0 Context and methodology

The use of AI tools, including AI scribes is under evaluation by numerous VPHS as a way of achieving necessary efficiencies and improving clinician and patient experiences.

The Victorian Department of Health have created this guidance to establish a minimum standard for the implementation and use of AI scribes across the sector and facilitate the implementation process by eliminating the need for each health service to create its own guidance.

This guidance should be used in conjunction with other relevant guidance including:

- AHPRA: Meeting your professional obligations when using AI in healthcare
- Guidance for safe and responsible use of generative AI in the Victorian public sector
- Administrative Guideline for safe and responsible use of Generative AI in the Victorian Public Sector
- Administrative Guideline: Direction on the use of DeepSeek Products, Applications and Web Services
- Office of the Victorian Information Commissioner: AI and Privacy – Issues and Challenges

[1] Ambient Artificial Intelligence Scribes to Alleviate the Burden of Clinical Documentation

[2] Ambient artificial intelligence scribes: physician burnout and perspectives on usability and documentation burden

[3] Ambient artificial intelligence scribes: utilization and impact on documentation time

[4] Impacts of AI Scribes on Clinical Outcomes, Efficiency, and Documentation: A rapid review

- Office of the Victorian Information Commissioner: AI – Understanding Privacy Obligations
- Australian Privacy Principles

2.1 Inclusion and exclusion use cases

This guidance applies to the production of clinical documentation intended to be stored within medical records and EHRs of VPHS via the use of AI scribes. Administrative uses of AI scribes are excluded, such as the recording, transcription and summarisation of an operational meeting between hospital staff which is not intended for capturing within an EHR.

This guidance applies to all clinical professions leveraging AI scribe solutions for the purpose of clinical documentation as described above. It excludes use of tools for additional functions such as summarising information within an EHR, searching for information within an EHR and clinical decision support.

Any tools requiring regulation via the Therapeutic Goods Administration (TGA) are excluded from scope[5].

3.0 Governance

Any use of AI scribes within the VPHS should be subsequent to a comprehensive review and approval process within a sound governance framework. Individual clinicians within VPHS should not be adopting tools without the knowledge and approval of their organisation.

The governance framework in place should include the following components:

- Ethics – guiding principles and moral considerations for AI development and deployment.
- Responsible AI polices – frameworks and processes for AI management, oversight and deployment.
- AI technology – technical aspects and capabilities of AI systems aligned with governance standards.
- Evaluation framework – Metrics and feedback mechanisms should be established to assess its effectiveness, user satisfaction, and areas for improvement.

Governance is an ongoing process. Once a tool is appropriately selected and implemented, the outcomes of the use of the tool and ongoing oversight of the tool must continue within the organisation.

4.0 Implementation requirements

The *Health Records Act 2001 (Vic)* is the primary legislation governing the management of medical records. The Act establishes a framework to manage the collection, handling, and storage of health information. Legislation regarding the privacy requirements of handling the data are defined within the *Privacy and Data Protection Act 2014 (Vic)*. Responsibilities regarding access via Freedom of Information (FOI) remain consistent with other aspects of the medical record and defined by the *Freedom of Information Act 1982 (Vic)*. As these tools are used to record conversations, the *Surveillance Devices Act 1999 (Vic)* also applies.

This guidance relates to requirements specific to AI Scribes. These requirements should be applied in addition to standard health service requirements for the implementation of technology solutions including cyber security controls, architecture standards and Australian and health privacy principles.

[5] Artificial Intelligence (AI) and medical device software | Therapeutic Goods Administration (TGA)

4.1 Policy and procedures

Health services must review and update relevant policies and procedures related to privacy and health information management to align with the use of the AI scribe implemented.

Rationale: AI scribes introduce unique compliance, privacy, and operational challenges. Updating policies and procedures ensures clarity, safeguards legal and regulatory obligations and provides protection for health services and consumers.

4.2 Data governance and use

4.2.1 Data storage and processing

Health services must only use AI scribes that store and process data in Australia.

Rationale: Most AI scribes offer, or can enable, the ability to store and process data in Australia. While legislation does allow international data storage and processing, if equivalent privacy and security standards are met per Australian Privacy Principle eight6, in practice assuring this challenging. Given this and considering the sensitivity of the information and elevated risk of re-identification, the most pragmatic and safe option is to mandate domestic storage and processing.

4.2.2 Data retention

Artefacts created by the AI scribe (excluding the artefacts that form part of the medical record) should be discarded as soon as practicable for the workflow concerned and controlled by organisational policy. Health services should work with vendors to build retention schedules into vendor contracts.

Under no circumstances should a vendor be allowed to on-sell data to a third party.

Rationale: AI scribes support the development of clinical documentation. Once a note has been finalised and signed by the clinician there is no longer a need to keep the artefacts generated directly by the tool. However, different clinicians and products have different workflows meaning the time taken to reach this point can vary.

4.2.3 Model training

It is strongly advised that health services do not allow vendors to use patient data (even if identifying information is removed) to train models. However, data about how a user interacts with a tool (e.g., corrections, changes in formatting style) can be used for quality control purposes.

When a tool leverages patient data for model training the health service has the responsibility to ensure:

- The vendor removes identifying information from the data
- Informed consent is obtained from the patient for the use of their data for model training purposes

Rationale: The majority of AI scribe tools use third party AI models. Allowing training on patient data may result in sharing of that data with third party providers, increasing privacy and security risk. Even if data are de-identified, there is a risk that it can be re-identified especially if combined with other data sets. Obtaining meaningful consent for the use of a patient's data for model training may be challenging and it will be difficult, if not impossible, for a patient to withdraw that consent.

[6] Chapter 8: APP 8 Cross-border disclosure of personal information | OAIC

4.3 Privacy and security

4.3.1 Privacy impact assessment

Health services must complete a privacy impact assessment (PIA) prior to implementation of an AI scribe. Health services are encouraged to voluntarily share their completed PIAs with the department, which can serve as a reference for other health services to adapt to their specific needs.

Rationale: Completing a PIA allows health services to proactively identify and address potential privacy risks associated with the implementation of AI scribes. A PIA ensures the health service is aware of the ways in which personal information is collected, used, and stored, helping to establish appropriate safeguards to protect patient data. By conducting a PIA, health services can develop targeted risk mitigation strategies, maintain transparency with patients, and build trust in the use of technology. The PIA process can also facilitate compliance with legal and regulatory requirements, reducing the likelihood of privacy breaches and associated repercussions.

4.3.2 Information and cyber security

Health services must apply a standards-based approach to cyber and information security, including adherence to the department's Health Sector Cybersecurity Baseline Controls. Aligned with these controls, health services must protect all personal and sensitive data-at-rest and in transit, on portable devices, when using remote cloud-based file storage and during communication over public networks with encryption.

Health services must ensure that vendors are not utilising any third-party services that have been prohibited for use within the Victorian public sector. In addition, health services must ensure vendors are not using any publicly available third-party services – data processed by third-party services must remain within the vendor or health service's secure environment.

Rationale: The health sector is a prime target for cyber-attacks and has seen increased threat activities and compromised systems[7]. AI systems used for healthcare delivery are vulnerable to increased cyber threats and must be safeguarded against malicious intentions or accidental misuse. Many AI scribe solutions leverage third-party services to enhance functionality, it is essential to ensure that these services adhere to stringent security protocols to protect patient data from unauthorised access and use.

4.3.3 Patient consent

Explicit consent must be obtained from the consumer or authorised medical treatment decision maker (e.g., parent, carer) prior to using an AI scribe, and that consent must be recorded. This consent should include advising the consumer that the tool is being used and provide the option for the consumer to opt-out of its use. A clear process and accountability for obtaining and documenting patient consent must be established and documented. The collection of consent may be an extension to consent process already in place or a new process specifically designed for this purpose.

Health services should update their data collection notices to inform patients that AI scribe technology is in use. Tools such as patient information pamphlets explaining the use of AI scribes should be available for additional information rather than expect administrative and / or clinical staff to explain the technology in use.

Rationale: Patient consent is required to comply with privacy obligations, to avoid breaching privacy requirements or surveillance devices legislation and to adhere with ethical and responsible use of AI

[7] Cyber Security Fundamentals | Australian Digital Health Agency

principles. The Australian Health Practitioner Regulation Agency (AHPRA) has specified that meeting professional obligations requires obtaining consent from the patient/client prior to using an AI scribe solution[8].

5.0 Best practice principles

Beyond the formal requirements for implementing AI scribes, the following best practice principles should be applied to ensure successful adoption:

5.1 Solution evaluation

The procurement and evaluation process must assess the solution across the breadth of clinical settings and specialties in which it is intended to be applied. Solutions developed for one context should not be applied to other context without formal evaluation. For example, a solution that has high accuracy in primary care should not be assumed to apply to other specialties (e.g., oncology, maternity). Similarly, a solution trained for use in another geographical region cannot be assumed to be accurate in the VPHS context.

5.2 Clinician role and responsibility

AI scribes are efficiency tools, able to produce a first draft of clinical documentation (unstructured text and, for some solutions, text in discrete fields). The generated documentation should be comprehensively reviewed and edited as needed to provide a final signed version of the clinical note. Guidelines and processes must be implemented to ensure that clinicians are aware that the clinician signing the note retains all responsibility for its content accuracy and completeness.

5.3 Education and support

Staff should receive training on how to obtain patient consent, the use of the tool, how the solution works and its inherent limitations. They should also receive training about AI at a higher level to ensure awareness of factors such as bias. Automation bias is of particular concern with relation to the use of AI scribes. As these tools become increasingly accurate there is a significant risk that clinicians will become reliant on the output of the solution, increasing the risk of overlooking missing or inaccurate information. Support mechanisms to allow for knowledge growth and improved utilisation of tools should be made available to staff. This could take the form of super users, service desk function, and regular drop-in education sessions for example.

5.4 Value realisation

The value of adopting these solutions varies by organisation, specialty, and clinician. The hype surrounding these solutions risks losing sight of the need to demonstrate its benefit/value. Prior to implementation, VPHS should establish clear criteria and metrics (e.g., clinician time spent on documentation tasks, patient and clinician satisfaction, timeliness of clinical documentation) for evaluating the impact and effectiveness of the solution to ensure ongoing investment in the technology can be justified.

5.5 Documentation format

Implementation of AI scribes provides organisations with the opportunity to build in minimum documentation standards. While a certain degree of standardisation will improve overall documentation, this needs to be balanced with speciality specific requirements (e.g., documentation templates) and individual clinician preferences (e.g. blocks of text vs. bullet points).

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[8] Artificial Intelligence in Healthcare | Australian Health Practitioner Regulation Agency

5.6 User experience

AI scribes should be formally integrated within the architecture of the organisation, allowing a comprehensive user experience. Ideally, tools should be integrated into the EHR of the organisation. Health services implementing tools that require a cut and paste methodology from one application to another should be aware of associated risks (e.g., pasting information into the wrong patient's medical record) and put in place strategies to mitigate these risks.

5.7 Scaling solutions

Any deployed tools should be used in alignment with approved use cases. An expansion of the use of a tool should be subject to the relevant clinical governance processes. For example, a tool approved for use within the emergency department should not be further deployed to use in specialist clinics without due consideration by the organisational clinical governance process.

For questions and feedback please email DigitalHealth@health.vic.gov.au