MANATECH

RESEARCH REPORT

Ambient AI Scribes and the Transformation of Clinical Documentation

Executive Summary

The healthcare industry is currently facing a documentation crisis that significantly contributes to clinician burnout and erodes the patient-physician relationship. Ambient clinical documentation, powered by generative artificial intelligence, has emerged as a primary solution to this challenge. By passively capturing and summarizing patient-physician conversations in real-time, these tools—often referred to as "AI scribes"—allow clinicians to focus on direct care rather than manual data entry.

A synthesis of recent studies and deployments across major health systems reveals that AI scribes can save between 3 and 16 minutes of documentation time per encounter. At scale, organizations like The Permanente Medical Group (TPMG) have recorded savings of over 15,000 hours in a single year. Beyond efficiency, the technology is credited with reducing "pajama time" (work performed after hours), increasing clinician job satisfaction, and improving the quality of patient interactions through enhanced eye contact and active listening. As the technology evolves, it is moving beyond simple scribing toward becoming "AI Care Partners" capable of managing communications, clinical research, and operational tasks.

Comparative Analysis of Health System Implementations

The following table summarizes the documented impact of ambient AI scribe technology across various health systems and medical settings:

Health System	Technology Used	Documented Impact/Results
The Permanente Medical Group (TPMG)	Generative AI Scribe	Saved 15,791 hours of documentation over 2.5M encounters; 82% reported improved work satisfaction.
Emory Healthcare	Ambient AI Scribe	30.7% increase in documentation-related well-being prevalence (JAMA 2025 study).
Mass General Brigham	Ambient AI Scribe	21.2% reduction in burnout prevalence after 84 days of utilization (JAMA 2025 study).

Health System	Technology Used	Documented Impact/Results
Cleveland Clinic	Ambience	Decreased average EHR time for writing/reviewing notes by 14 minutes per day.
Cooper University Healthcare	Dragon Copilot	Saved 4.15 minutes per patient; approximately one hour saved daily per clinician.
Mercy	Dragon Copilot	Saved nurses approximately two hours of charting in a 12-hour shift.
Intermountain Health	Dragon Copilot	27% reduction in time spent on notes per appointment for high-frequency users.
Hawke's Bay Hospital (NZ)	Heidi Health	Saving up to 10 minutes per patient in Emergency Departments.
Anglicare Victoria	Heidi Health	Saved 6 hours per week per frontline worker; improved case note quality and structure.
Island Bay Medical Centre	IntelliTek Health	Saving GPs between two and five minutes per consultation.

Key Themes and Operational Impact

1. Mitigation of Clinician Burnout

Clinical documentation is a leading driver of the "work outside of work" phenomenon, frequently referred to as "pajama time."

- **Workload Reduction:** AI scribes mitigate the cognitive load of remembering details from a 15-minute consult to document later.
- **Retention:** Clinicians have reported that the technology has "added years" to their careers by making the daily workload sustainable.
- **User Demographics:** Studies indicate that adoption is not restricted by age or years in practice; high-frequency users (top third) see the most dramatic "dose-response" benefits, often more than doubling their time savings compared to low-frequency users.

2. Restoration of the Human Side of Medicine

The shift from "computer-centric" to "patient-centric" care is a primary qualitative benefit.

- **Eye Contact:** Clinicians no longer need to look at the keyboard or screen during visits, allowing for more eye contact and nuanced questioning.
- **Patient Perception:** Nearly half of patients in the TPMG study noted their doctors spent less time on the computer, and 56% reported a positive impact on the quality of their visit.
- **Engagement:** In social work and community care (e.g., Anglicare Victoria), removing the need to take notes in the moment leads to more "enriching engagement" with clients.

3. Healthcare Capacity and Efficiency

The technology addresses the structural gap between rising healthcare demand and workforce shortages.

- **Visit Volume:** Usage has been associated with a modest increase in the number of visits per week (0.49 more visits per clinician in one JAMA study).
- **Throughput:** In New Zealand Emergency Departments, saving 10 minutes per patient can translate to seeing 10 to 20 more patients across a busy 10-hour shift.
- **Specialized Use:** Adoption is highest in departments with heavy documentation burdens, such as mental health, primary care, and emergency medicine.

Technical Considerations and Risk Management

Privacy and Security

As healthcare organizations adopt these tools, security remains a top priority, particularly following recent sector-wide hacks.

- **Encryption and Authentication:** Leading tools like Heidi use two-factor authentication (2FA), de-identification of data, and high-level encryption.
- **Data Residency:** There is a growing demand for "sovereign" data storage. For example, New Zealand systems prioritize local data storage to comply with national privacy laws.
- **Audio Retention:** To ensure compliance, many systems (such as Medtech AI) process audio in real-time and discard it immediately after the transcript is generated, storing no audio files.

Clinical Governance and "Hallucinations"

AI is a support tool, not a replacement for clinical judgment.

- **Accuracy Risks:** AI can "hallucinate," adding false or illogical information to clinical notes. Emergency physicians note that while these errors are infrequent, they necessitate "very careful editing."
- **The "Human in the Loop":** It is a standard requirement that clinicians must review, edit, and approve every AI-generated output before it is finalized in the Electronic Health Record (EHR).

Evolution Toward the "AI Care Partner"

The industry is moving beyond simple "scribing" to more comprehensive support systems.

- **Evidence Integration:** New features (e.g., Heidi's "Evidence") allow clinicians to look up trusted, citation-backed guidelines and clinical calculators directly within the consultation workflow.
- **Automated Communications (Comms):** AI can now handle inbound and outbound calls, appointment booking, and post-visit summaries adjusted for health literacy.
- **Purpose-Built Hardware:** To solve the issues of phone battery drainage and unprofessional appearances, vendors are launching dedicated clinical hardware. Devices like "Heidi Remote" are

360-degree omnidirectional microphones designed to be worn on a lanyard, featuring 14-hour battery life and encrypted offline storage for use in connectivity-dead zones like hospital basements or military settings.

- **Practice Management:** Tools like Claude AI are being utilized for "non-clinical" administrative tasks, such as drafting Standard Operating Procedures (SOPs), front-desk scripts, and HR documentation to streamline clinic operations.

Important Quotes with Context

> ***"Both doctors and patients highly value face-to-face contact during a visit, and the AI scribe supports that."*** *— Dr. Vincent Liu, TPMG Chief Data Officer, highlighting the qualitative shift in care delivery.*

> ***"AI scribes sometimes hallucinate terribly, and just get things wrong... that is the next stage, it's happening now, but it is higher risk than AI scribes."*** *— Richard Medlicott, Wellington GP, providing a cautionary note on the risks of moving AI from documentation to clinical advice.*

> ***"I have been told by most of the case workers that my life could be at risk if I take it away."*** *— Dean Mills, CTO at Anglicare Victoria, illustrating the high level of staff dependency and satisfaction following implementation.*

> ***"The quality of your documentation should not depend on you having the right hardware... a single phone call has killed our sessions more than once."*** *— Dr. Tom Kelly, CEO of Heidi Health, explaining the rationale for developing dedicated clinical hardware to replace consumer smartphones.*

Actionable Insights for Healthcare Leadership

1. **Prioritize Integration:** Adoption is hindered by a lack of integration with existing note templates. Leaders should choose solutions that integrate natively with their Practice Management Software (e.g., Medtech Evolution or Epic) to eliminate "copy and paste" workflows.
2. **Start with "Easy Wins":** Implementation is most effective when started in a single area, such as SOP creation or a small cohort of clinicians (e.g., 100 docs) in high-burden specialties like mental health or primary care.
3. **Establish Clear Guardrails:** Explicit policies must be in place to forbid the input of patient-identifiable information into non-compliant AI tools and to mandate clinician review of all outputs.
4. **Leverage "Dose-Response" Training:** Because the greatest benefits accrue to the highest users, organizations should provide targeted training and outreach to low-frequency users to help them move past the initial "editing takes too long" barrier.

5. **Transparency to Maintain Trust:** To maintain patient trust, providers should be transparent about the use of AI, ask for explicit consent before recording, and ensure that the primary benefit of the data remains with the public rather than private entities.