AI 'scribe' increases face-to-face time with patients

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When doctors teamed with an artificial intelligence tool that "listened" in and took notes on patient visits, the tool significantly decreased the time providers spent interacting with patients' notes instead of with the

patients themselves. It also decreased the "pajama time" spent reviewing patient cases after working hours, according to a new *JAMA Network Open* [study](#) conducted by researchers at the Perelman School of Medicine at the University of Pennsylvania.

"This small study shows early but promising results. In an era where we need to find ways to decrease physician burnout and increase the workforce of primary care providers, these results provide a glimmer of hope," said Kevin B. Johnson, MD, MS, the David L. Cohen University Professor at Penn and the director of the Artificial Intelligence for Ambulatory Care (AI4AI) Lab at Penn Medicine.

Penn Medicine is in the early stages of working with a "scribe" tool that uses [artificial intelligence](#) to decipher the conversations between doctors and patients and take accurate notes in the patients' electronic health records (EHRs). Currently, a group of volunteer clinicians are using this "ambient listening" tool with patients who have given permission for it to be used during their visits.

For the study, 46 clinicians participating in the early phase of the project completed a survey. Johnson and his team found a 20% decrease in the clinicians' time spent interacting with EHRs during and after patient visits, with a 30% decrease in time spent after working hours, dubbed "pajama time" by some because it usually takes place at home, at night.

In pure time measures, that translated to a two-minute increase in time that could be spent directly conversing with patients, face-to-face, per visit. Additionally, the analysis found that clinicians gained approximately 15 minutes of personal time at home, each day, that otherwise had been spent working in the EHR. One of the doctors responded in the survey that the AI scribe was "cutting back on my documentation time by about two hours, cumulative, each week."

This time savings is important for both clinicians and patients. Many patients have follow-up questions or important information to share at the end of an appointment, so having even just a few extra minutes could be critical in reassuring or informing a patient about their condition.

The AI scribe "has dramatically decreased my documentation burden and allowed me to have conversations with patients that don't require me to divert attention from the computer screen," one physician said in the study's survey.

Ease-of-use ranks high

At the end of the study period, clinicians were asked whether they found the system easy to use and if they would recommend it to others.

On a scale of 0 to 100 (100 being the easiest to use), the system received an average score of 76.

Whether they'd recommend the system to others, on a scale of 0 to 10 (10 being certain to recommend), approximately 65% were either "promoters" of the system (responding with a 9 or 10), or "passive" recommenders (7 or 8).

According to co-author C. William Hanson, III, MD, UPHS Chief Medical Information Officer and a professor of Anesthesiology and Clinical Care, different types of doctors document in different ways—for example, an ophthalmologist's notes differ from those of an internist. These notes often have many different readers, including colleagues, regulators, insurers and patients.

"Virtual scribe technology is getting better every day at answering those varied requirements," Hanson said.

One doctor commented to the researchers, "I legitimately think this technology, once optimized, is the biggest advancement for outpatient primary care providers in decades."

Anna Schoenbaum, DNP, MS, RN-BC, FHIMSS, UPHS Vice President of Applications and Digital Health, added that Penn Medicine is "leveraging technology to strengthen the clinician-patient relationship, and this study highlights how AI tools like ambient listening can improve efficiency, reduce cognitive burdens, and restore valuable time for both providers and patients."