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Clinician Perspectives on an Ambient AI Scribe in the Emergency Department: A Cross-Sectional Pilot Survey

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Short Report

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Abstract

Objective

Ambient artificial intelligence (AI) scribes are being adopted to reduce clinical documentation burden, but evidence from the emergency department (ED), a high-acuity, frequently interrupted setting, remains limited. We evaluated ED clinicians' perceptions of an ambient AI documentation platform (Ambience) implemented across two EDs in one United States health system, using a two-round cross-sectional survey and inductive qualitative content analysis of free-text responses.

Results

Twenty-three clinicians provided 34 responses. All responses (100%) reported high overall satisfaction, willingness to recommend the platform, and enhanced focus during patient encounters; enhanced documentation quality and improved work-life balance were each reported in 32 of 34 responses (94%). Among 18 responses from clinicians with prior human-scribe experience, 16 (89%) used a human scribe and Ambience together rather than as substitutes. Content analysis identified documentation efficiency (21/34) and note detail capture (21/34) as the most emphasized strengths, with accuracy limitations (10/34) and workflow friction (6/34) as recurring concerns. A small subset (3/34) described the platform surfacing diagnoses or actions they might otherwise have missed. Findings are favorable but limited by small size, repeated responses, and positively framed items.

Introduction

Documentation burden is a leading contributor to clinician burnout, and the ED is especially affected by high patient volume, frequent interruptions, and time-critical decisions [1, 2]. Ambient AI scribes, which passively capture clinician-patient conversations and generate draft notes, have been proposed to reduce this burden, with early outpatient evidence suggesting improved perceived efficiency and reduced after-hours charting [1, 3]. Evidence specific to the ED is still emerging [4–7], and most reports emphasize adoption rates or documentation-time metrics rather than the qualitative texture of clinician experience during real-world implementation.

Houston Methodist implemented an ambient AI documentation platform (Ambience Healthcare, San Francisco, CA, USA) in two EDs beginning November 2024. As a formative, single-institution evaluation, this Research Note reports clinician perceptions and free-text themes gathered during phased rollout, with attention to the qualitative findings and implementation learning that distinguish it from larger effectiveness studies. We hypothesized that ED clinicians using an ambient AI scribe would report high acceptability and perceived improvements in documentation workflows.

Methods

Design and setting. This descriptive, observational evaluation was conducted in the EDs of Houston Methodist Hospital (Main Campus) and Houston Methodist West Hospital. The platform was integrated with the Epic electronic health record (EHR; Epic Systems, Verona, WI, USA) and deployed in phases from a November 2024 pilot through spring 2025 (Fig. 1). Participation was voluntary. By July 31, 2025, 35 ED clinicians across both sites had been trained on the platform; we use this trained-provider count as the recruitment denominator, because individual active-usage dates were not tracked.

Survey and analysis. An internally developed electronic survey (see Additional file 1) was distributed by institutional email to trained ED clinicians in two rounds: Round 1 (February 24 to March 31, 2025) and Round 2 (May 6 to July 31, 2025). Eligible clinicians had at least one shift of platform use. Quantitative items used Yes/No response options, with two items (perceived documentation efficiency and likelihood of recommending the platform) rated on a 1-to-5 scale; distributions were summarized descriptively. Because most respondents were named and some responded in both rounds, submissions were analyzed at the response level. Free-text responses were analyzed by inductive qualitative content analysis following Elo and Kyngas [8]: two team members independently coded all responses, grouped codes into categories, and resolved differences by consensus. Category frequencies are reported as the number of responses mapped to each category. Full item-level distributions, coding rules, and two survey design issues identified post hoc (a duplicated documentation-quality item and a display error affecting three early anonymous responses) are detailed in Additional file 2. ED-specific UAL documentation-time data were sought but were not retrievable within the evaluation period; this evaluation therefore reports clinician perception only.

Results

Response yield. Thirty-four responses were received from 23 unique respondents: 20 named respondents (17 physicians, 3 advanced practice providers) contributing 31 responses, and 3 anonymous Round 1 responses. This represents 20 of 35 trained clinicians (57%) by named response, or 23 of 35 (66%) including anonymous responses. Round 1 yielded 9 responses and Round 2 yielded 25. Ten of the 23 respondents contributed more than one response. Among named respondents, gender was evenly split (10 female, 10 male); role and gender of the 3 anonymous respondents could not be confirmed.

Clinician-reported perceptions. Binary results are shown in Table 1. All responses (34/34, 100%) reported high overall satisfaction, willingness to recommend the platform, enhanced focus during patient encounters, and improved patient experience. Enhanced documentation quality and improved work-life balance were each reported in 32 of 34 responses (94%). On the graduated scales, the mean efficiency rating was 4.4 (range 2 to 5) and the mean willingness-to-recommend rating was 4.8 (range 4 to 5). Among 18 responses from clinicians with current or prior human-scribe experience, 16 (89%) used a human scribe and Ambience together rather than as substitutes, and 32 of 34 (94%) rated AI-generated documentation as higher quality and more complete than clinician- or scribe-generated notes.

Table 1
Clinician-reported responses across binary survey items (34 responses from 23 respondents).

Survey item	Yes, n (%)	No, n (%)	Total, n
Enhanced quality of documentation	32 (94)	2 (6)	34
Improved work-life balance	32 (94)	2 (6)	34
Enhanced focus during patient encounters	34 (100)	0 (0)	34
Improved patient experience (clinician perception)	34 (100)	0 (0)	34
High overall satisfaction with the platform	34 (100)	0 (0)	34
Would recommend the tool to colleagues [a]	34 (100)	0 (0)	34
Has used a human medical scribe (current or previous)	18 (53)	16 (47)	34
Uses Ambience and human scribe together (n = 18)	16 (89)	2 (11)	18

[a] Recoded from a 1-to-5 scale (27 responses rated 5; 7 rated 4).

Qualitative findings. Six categories emerged from content analysis (Table 2). Documentation efficiency and note detail capture were the most emphasized strengths (each 21/34), with clinicians describing faster note completion and retention of details otherwise lost during high-volume shifts. Accuracy limitations and hallucinations (10/34) and EHR workflow friction (6/34) were the main concerns. A small subset (3/34) described the platform surfacing diagnoses or secondary concerns they might otherwise have missed. Among the three respondents who submitted in both rounds, willingness to recommend remained 5 of 5, and one noted improved medical decision-making generation between rounds, reflecting iterative vendor changes.

Table 2
Qualitative categories from inductive content analysis of free-text responses, with exemplar quotes.

Category	Responses, n (of 34)	Exemplar quote
Documentation efficiency, ease of use, time savings	21	*Note completion now takes 1 to 2 minutes between patients, compared with at least 5 minutes previously*
Note detail capture and completeness	21	*It does not forget the details; now, when I chart, I am reminded of details that I had forgotten*
Patient presence and engagement	12	*I can be present instead of madly scribbling down details of the HPI*
Accuracy limitations and hallucinations	10	*It could do better with spelling errors, especially on medications and common medical terms*
EHR workflow integration friction	6	*It is cumbersome to juggle between the mobile device and Epic*
Diagnostic and clinical decision support	3	*Sometimes reminding me or suggesting diagnoses I had inadvertently ignored*

Discussion

In this formative single-institution evaluation, ED clinicians reported uniformly favorable perceptions of an ambient AI scribe, with perceived gains in documentation quality, work-life balance, and patient focus, and qualitative accounts emphasizing note detail capture. These perception-based findings are broadly consistent with recent ED evaluations that used objective or comparative measures. Preiksaitis et al. found low, highly skewed adoption and a 28% reduction in median on-shift documentation time when the tool was used [4]. Marquis et al. reported that most surveyed emergency physicians preferred AI-assisted documentation to independent charting but had lower confidence in note accuracy than for human scribes [5]. Webb et al. found two ambient tools highly usable and perceived to reduce documentation burden while preserving note quality [6], and Olson et al. reported reduced administrative burden and burnout in a larger sample [7]. Our accuracy-related concerns mirror the reservations in these studies, while our data cannot speak to objective documentation time or blinded note quality.

The distinct contribution of this evaluation is qualitative. Note detail capture emerged as a leading perceived strength, and a small subset of clinicians described the platform prompting diagnoses or follow-up actions they might otherwise have missed, a clinical-decision-support signal that, although based on few responses, may warrant systematic study. The phased rollout also illustrates implementation learning: clinician feedback between rounds informed vendor refinements to backend logic, interface, and note content, and the deployment fit within an existing institutional consent and governance framework for AI-enabled care rather than requiring a purpose-built policy [9]. Together, these observations suggest that ambient AI documentation can be integrated into high-acuity ED

workflows and that clinician-reported experience adds context that adoption and time metrics alone do not capture.

Limitations

- Small convenience sample from a single health system, limiting generalizability.
- Response-level analysis with repeated submissions from ten respondents, which may bias findings toward clinicians with more favorable early experiences.
- Most responses were not anonymous, and items used positively framed wording, both of which may have inflated favorability.
- The instrument was internally developed and not validated; two design issues were identified post hoc (see Additional file 2).
- Binary items may oversimplify perceptions, and individual usage duration and frequency were not tracked.
- No objective documentation-time or blinded note-quality data were available for the ED population.
- Gender was determined post hoc from public professional profiles, and no patient-reported outcomes were collected.

Abbreviations

AI: artificial intelligence

ED: emergency department

EHR: electronic health record

UAL: user activity log

HIPAA: Health Insurance Portability and Accountability Act

HPI: history of present illness

Declarations

Ethics approval and consent to participate

This study was conducted in accordance with the ethical principles of the World Medical Association Declaration of Helsinki. The Houston Methodist Institutional Review Board reviewed the evaluation under the U.S. Common Rule (45 CFR §46) and determined it to be Not Human Subject Research. The requirement for informed consent was waived by the IRB in accordance with this determination. Participation in the clinician survey was voluntary, and respondents were informed that participation

would not affect clinical scheduling, performance evaluations, or departmental standing. No incentives were offered. The Ambience platform captures audio during clinician-patient encounters to generate structured documentation and operates under a Business Associate Agreement compliant with the Health Insurance Portability and Accountability Act; audio is processed in vendor-hosted cloud infrastructure, retained for 30 days, and then redacted. Patients are informed at the point of care that an AI-assisted documentation tool is in use and may decline to be recorded. All data were stored on secure, access-controlled Houston Methodist systems, identifiable information was removed before analysis, and no individual respondents are identified in this report.

Consent for publication

Not applicable.

Availability of data and materials

The datasets analyzed during the current study are not publicly available because of privacy and ethical restrictions. The survey instrument and full item-level response distributions are provided as Additional files 1 and 2.

Competing interests

Sarah Sossong reports receiving professional fees from Houston Methodist related to the work described in this article. The other authors declare no individual financial conflicts of interest related to this work. Three authors (NS, CZ, NAN) are independent contractors with U.S. Acute Care Solutions, which provides emergency medicine staffing services to Houston Methodist Hospital. Houston Methodist Hospital is a customer of Ambience Healthcare, the technology evaluated in this study. Ambience Healthcare had no role in study design, survey development, data collection, data analysis, interpretation, or manuscript preparation.

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Authors' contributions

JM: writing, original draft, formal analysis. FI: writing, original draft. AK: writing, review and editing. SS: formal analysis, writing, review and editing. NS: investigation, writing, review and editing. CZ: data curation, writing, review and editing. SP: conceptualization, writing, review and editing. NAN: supervision,

project administration, visualization, writing, review and editing. All authors read and approved the final manuscript.

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Figures

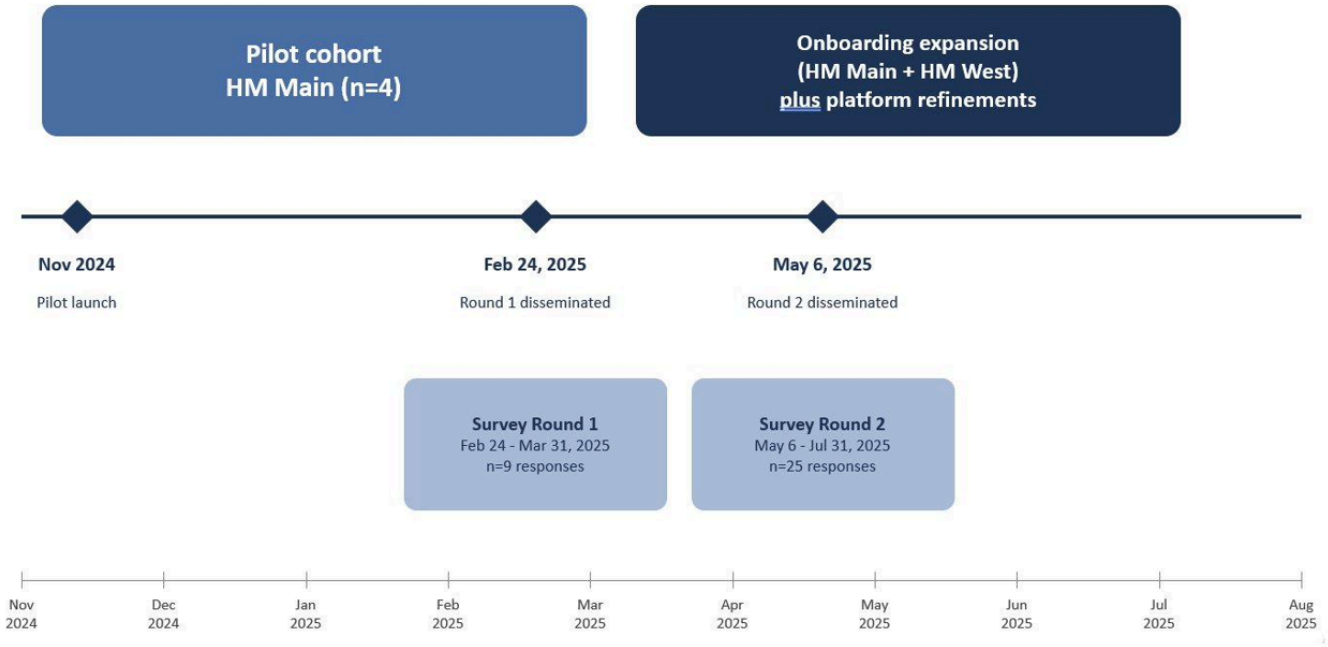


Figure 1

Implementation timeline of the ambient AI documentation platform and survey evaluation across the two Houston Methodist emergency departments.