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Healthcare Practice

Ambient scribing at the crossroads: What comes next?

Ambient scribing may be nearing an inflection point. Health systems should consider integrating the capability into automation strategies throughout the revenue cycle.

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The automation of clinical documentation via ambient AI scribing has emerged as a compelling solution in the midcycle of the health system revenue cycle. The midcycle refers to areas that encompass documentation integrity, coding, charge capture, claims submission, and more. Ambient scribing has demonstrated tangible and measurable value for a broad range of stakeholders: for health systems by reducing clinician documentation burden and streamlining clinically linked administrative tasks[1]; for patients by enhancing the health system–patient experience; and for compliance and quality functions by improving documentation accuracy. It has also begun to influence downstream processes in the midcycle, extending beyond these clinically adjacent administrative tasks.

Despite its rapid ascent, ambient scribing may be approaching an inflection point, with two converging forces reshaping the value proposition and role of the technology: structural integration of documentation capture into core electronic health records (EHR) and a move toward workflow platforms that increasingly seek to integrate advanced midcycle automation. Together, these forces signal a shift for healthcare organizations, evolving from ambient-siloed thinking toward integrated, revenue cycle–wide automation strategies.

As we discuss below, revenue cycle executives, health services and technology (HST) companies, and investors should recognize that ambient AI scribing may evolve from differentiator to commodity input, and plan accordingly. The question is shifting from "Should we adopt ambient?" to "How do we integrate it into a broader platform?" while ensuring interoperability and strategic alignment across the documentation-to-reimbursement pathway.

The rise of ambient scribing

Ambient AI scribing tools—capable of real-time transcription of clinician–patient dialogue—have garnered attention for reducing administrative burden and improving note completeness.[2] In just a short time, ambient tools have achieved adoption trajectories that have exceeded most technological solutions, including early EHR rollouts. Clinicians cite immediate returns: a 30 percent reduction in after-hours charting, 20 percent documentation time savings, and improved patient experience.[3]

Simultaneously, the technology's reach is expanding, now in use in outpatient and telehealth settings, emergency departments, inpatient units, and even perioperative and procedural care areas. In emergency and telehealth contexts, advanced noise-reduction methods and multimodal AI (audio, video, and sensor data) are extending ambient capture beyond transcription and into operational insight and continuous clinical-context sensing (in which the AI application monitors and understands changes in the environment and the patient's status through myriad integrated ambient sensors).

Yet ambient adoption is not the endgame. Capturing clinical dialogue among patients and health systems could serve as an anchor in the midcycle of the revenue cycle management (RCM) value chain (exhibit), but there is the opportunity to do more. Ambient data flow increasingly

[1] Paul J. Lukac et al., "Ambient AI scribes in clinical practice: A randomized trials," *NEJM AI*, December 2025, Volume 2, Number 12; Majid Afshar et al., "A pragmatic randomized controlled trial of ambient artificial intelligence to improve health practitioner well-being," *NEJM AI*, December 2025, Volume 2, Number 12.

[2] Kaustav P. Shah and Kevin B. Johnson, "The ambient AI scribe revolution—early gains and open questions," *JAMA Network Open*, 2025, Volume 8, Number 10; Shaka Bahadu, "End-to-end AI strategies: Ambient documentation and autonomous coding," Future Healthcare Today, June 10, 2024.

[3] Matthew J. Duggan et al., "Clinician experiences with ambient scribe technology to assist with documentation burden and efficiency," *JAMA Network Open*, 2025, Volume 8, Number 2.

determines coding precision, charge accuracy, and denial prevention. Although ambient scribing initially addressed inefficiencies in capturing clinician interactions, and did so while improving physician and patient experience, such solutions now face pressure from parallel advances both upstream (from EHRs and downstream (from RCM vendors.

Disrupting ambient: Implications for HST companies, investors, and health systems

Two forces are redefining ambient scribing. The first is structural convergence via EHR integration and capability development, and the second is the encroachment of adjacent midcycle capabilities (for example, coding, which are coalescing and introducing new features such as chart drafting and summaries taken directly from the EHR.

Together, these forces erode the stand-alone value proposition of ambient solutions and transform ambient into part of a broader automation continuum. HST companies, investors, and health systems that once thought about ambient's value in terms of accuracy and cognitive load now need to consider cross-functionality, interoperability, data utility (beyond documenting clinical encounters, and integration depth and breadth.

Structural convergence via platform integration

HST companies such as major EHR vendors are embedding ambient capture directly into their platforms, shifting the technology from a distinct product to a native feature.[4] The largest EHR vendors bundle ambient documentation within workflow modules. As documentation, structured data, and analytics converge, strategic value increasingly comes from the platform layer instead of the tech solution. Independent ambient vendors may lose differentiation as integration becomes the norm, and value will come mainly from platform ecosystems that can do it all. This convergence could accelerate due to three reinforcing dynamics:

— *Data proximity advantage.* EHRs own structured patient context and content and could therefore optimize model accuracy, given the rich data within reach for these documentation platforms.

— *Workflow stickiness and system interoperability.* Health systems prefer ambient systems that live inside existing note templates and ordering panels. Leading ambient solutions are interoperable with major EHRs, but EHR-native solutions could be more integrated into the workflows that clinicians are already familiar with, achieving seamless integration with minimal learning curve.

— *Ecosystem consolidation.* As EHR vendors increasingly capture downstream analytics and reimbursement data, they strengthen their position over ambient documentation workflows even as integration depth varies by platform. This evolution, combined with health systems' desire to limit IT spending and consolidate solutions, may challenge the value proposition of independent ambient solutions.

[4] Kyle N. Kunze et al., "Commercial products using generative artificial intelligence include ambient scribes, automated documentation and scheduling, revenue cycle management, ambient engagement and education, and prior authorization platforms," *Arthroscopy*, November 2025, Volume 41, Number 11.

Exhibit

The healthcare revenue cycle management value chain is extensive.

Revenue cycle management value chain (nonexhaustive)

Front end			Midcycle		Back end		
Value chain capabilities							
Patient access	Coverage identification and preauthorization	Patient financial engagement	Care management	Encounter coding and charge capture	Claims processing and clearing	Claims follow-up and collection	Patient billing and collection
Patient scheduling	Primary health insurance eligibility check	Patient out-of-pocket estimation	Inpatient utilization	Contract management	Pre-bill claim scrubbing	Contract management	Claim and debt validation
Patient preregistration	Secondary and tertiary health insurance eligibility check	Propensity-to-pay assessment	Utilization review	Transcription and ambient scribing	Postsubmission clearinghouse	Coverage discovery	Billing statements
Patient registration and admitting	Liability insurance eligibility check	Point-of-service collections	Disease management	Health information management	Claim submission (electronic data interchange and paper)	Payer follow-ups	Patient follow-ups, (eg, payment reminders)
Customer relationship management	Preauthorization and certification	Establishment of payment plan	Case management	Clinical documentation improvement		Transfer DRG	Precollection payment technologies
Customer service	Insurance enrollment and application	Patient financial counseling (eg, payment plan)	Discharge planning	Coding (including hierarchical-condition-category coding)		Denial and appeals management	Early-out collections
	Special payment program eligibility check	Charity care evaluation	Care coordination	Charge capture, review, and reconciliation		Zero-balance review and underpayments	Bad debt (ie, primary collection, secondary collection)
	Referral management		Physician advisory	Revenue integrity: Underpayments and blue-card programs		Payment posting	
	Dual eligibility and disability enrollment			Revenue integrity: Diagnosis-related-group (DRG) validation		Claim reconciliation	
	Out-of-state Medicaid			Revenue integrity: Charge description master and review		Payment variance management	
				Recovery audits			
Cross-functional capabilities							
Data, analytics, reporting, and business insights	Quality control and continuous quality improvement	Quality assurance	Training and education	Automation and feedback loops			

Note: Case management, utilization management, and physician advisory functions may include concurrent denials, level of care determination, discharge planning, care coordination, inpatient utilization, peer to peer, and other functions.

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Companies that sell stand-alone ambient solutions, as well as investors in those companies, should consider broadening their strategic aperture. Their differentiation must shift toward cross-platform interoperability, customization of medical-specialty documentation, and multimodal capture, including voice integration with sensor-driven ambient monitoring or video analytics, which formalizes the shift from ambient dictation to ambient awareness. Furthermore, companies should attempt to tie their capabilities more clearly to downstream sections of the documentation-to-reimbursement pathway in the midcycle and ultimately the back-end RCM.

Even then, these solutions will likely require access to external sources of integration such as distinct clinical decision-support tools, predictive analytics, proprietary knowledge bases, or direct access to payers in a subsequent horizon of innovation.

Midcycle repositioning inside RCM automation

The midcycle has long been a focal point for compliant documentation accuracy improvement given its direct impact on reimbursement.[5] Midcycle automation extends beyond documentation integrity into coding, charge-capture accuracy, and claim submission.[6] Structured templates and AI-assisted coding reduce reliance on transcription of free text, improving note quality and reducing processing time for routine tasks by 50 to 70 percent.[7] This in turn can increase clinician productivity and reduce administrative burden. In health systems adopting autonomous coding, structured data increasingly feeds billing and analytics directly, relegating ambient to a supportive rather than central role.

About 75 percent of hospitals are implementing some form of administrative or clinical AI capability, which often includes ambient scribing, robotic process automation, and generative and agentic AI.[8] As RCM automation accelerates, the locus of value shifts from transcription quality toward data interoperability and downstream automation readiness. In this new world, HST companies offering ambient solutions will need to become structured-data generators that seamlessly integrate into and across the midcycle and functionally reimagine the revenue cycle workflow.

— *Automated coding.* AI-assisted engines could use ambient-derived structured fields to prepopulate current procedural terminology and International Classification of Diseases codes and improve coding accuracy. Diagnosis-related-group classification with accurate severity capture would follow in time.

— *Charge integrity.* Real-time documentation validation could catch potential missed charges and remove charges that are not required, thereby ensuring documentation is accurately reflective of care delivered.

— *Denial prevention.* Accurate, contextual capture from ambient engines could be used to alert front offices to potential authorization and eligibility gaps to prevent denials. In time, they may even point to mitigating solutions and, in the case of agentic AI deployments, directly make changes and mitigate risks autonomously while sourcing any required information for payers, health systems, and patients.

[5]"Revenue cycle management: Connecting technology, people, and processes," American Health Information Management Association, 2022; Suhas Nair and Linga Sadayandi, "Applying technology to mid-revenue cycle operations," AGS Health, June 18, 2024.

[6]"Revenue cycle management: Clinical documentation improvement," Trexin, August 31, 2023; "IDS Healthcare mid-cycle," IDS, accessed December 5, 2025.

[7]Nchebe-jah Raymond Iloanusi and Amarachi Confidence Nweke, "Artificial intelligence for healthcare revenue cycle management: The art of the science," *Advance*, July 31, 2025.

[8]"3 ways AI can improve revenue-cycle management," American Hospital Association, June 4, 2024; In the next 24 months, leading HST companies and innovative health systems will move from pilots to production-scale deployments of agentic AI across RCM. Agentic AI is characterized by its ability to autonomously make decisions and execute complex end-to-end processes. AI enablement in the revenue cycle could lead to big reductions in cost to collect, faster cash realization, and a workforce refocused on patient value rather than administrative tasks.

Economically, independent ambient solutions' initial return on investment—reduced charting time and improved clinician satisfaction—is facing commoditization as platforms consolidate and downstream automation grows.

Strategically, timing matters: Health systems that deploy rigid ambient solutions under longer-term contract structures risk integration challenges when the next automation wave arrives.[9] Health systems investing today are now anticipating both trajectories—one in which ambient data powers autonomous coding, analytics, and quality reporting, and another in which ambient data is replaced by other primary inputs.

To capitalize on ambient's promise while adapting to health systems' desire to avoid structural lock-in, ambient solution vendors, investors, and health systems should consider pursuing the following approaches:

— *Reframe ambient adoption as an infrastructural strategic investment.* Treat ambient capture as a foundational element for downstream automation. This approach could open up opportunities to explore adjacent capabilities such as coding, clinical documentation improvement, and clinical decision support.

— *Design modularly.* Ensure a modular and interoperable design with open APIs to facilitate future integration with the midcycle (through internal development, external partnership, or acquisitions). Putting mechanisms in place to layer in further innovation will be key to downstream automation and should be a structural "built-in" consideration.

— *Invest in structured-data readiness.* Ensure ambient outputs are standardized, codified, and directly usable in downstream systems in conjunction with parallel sources of structured data. This will require tailoring to specific health system contexts such as care settings, patient populations, and clinician specialties. Linking ambient outputs to downstream use cases requires standardizing outputs to permit seamless integration.

— *Benchmark return on investment beyond clinician time savings.* Quantifying ambient's impact on denial rates, documentation completeness and accuracy, and revenue capture is critical for health systems to understand the value proposition of ambient solutions.

— *Forge flexible partnerships.* Health systems should evaluate EHR alignment while maintaining optionality through multivendor interoperability. The velocity of change in ambient solutions, AI, and healthcare technology more broadly makes flexibility in contracting structures and partnership arrangements as well as access to innovation essential to realizing impact.

[9] Eratha Poongkuntran, "Ambient AI scribes: Streamlining clinical documentation for operational efficiency," Avasant, November 2025.

Ambient scribing sits at a crossroads. Convergence within EHRs and the rapid evolution of midcycle automation are redefining ambient scribing's role from innovation frontier to workflow component. Its future will not be defined by who transcribes fastest, but by who integrates deepest.

Healthcare leaders should approach ambient adoption as one step within a continuum of automation, ensuring alignment with long-term revenue cycle strategy and data infrastructure modernization. Those who recognize this inflection—treating ambient not as an endpoint but as an enabler—will define the next era of healthcare automation.

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