

Ambient AI in Residency Training: A Call for Competency-Based Documentation Milestones

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To the Editor

Anderson and Koran-Scholl demonstrate that ambient artificial intelligence (AI) can reduce documentation time for residents by more than 2 hours per week without increasing burnout.¹ Their findings also raise an important educational question that the study was not designed to address: How should documentation competency be defined and assessed as AI-assisted documentation becomes integrated into graduate medical education (GME)?

The efficiency gains reported by Anderson and Koran-Scholl may allow residents to spend more time on patient care. However, because the study evaluated efficiency rather than documentation competency, it remains unclear whether prolonged reliance on AI could influence how documentation skills develop over time. Similar concerns have been raised regarding other AI-assisted educational tools, in which excessive reliance may reduce opportunities for deliberate practice.² Documentation is a clinical skill that requires repeated practice and formative feedback to achieve proficiency. AI-assisted documentation should therefore complement rather than replace clinical reasoning.

Existing Accreditation Council for Graduate Medical Education Milestones for Interpersonal and Communication Skills (ICS-3) address accurate patient documentation.³ However, AI-assisted documentation introduces additional competencies, including evaluating, editing, verifying, and cognitively integrating AI-generated content while maintaining responsibility for clinical reasoning and accuracy.

One potential approach would be a competency-based progression in which residents first demonstrate documentation proficiency before advancing to supervised and eventually routine AI-assisted documentation. Such a framework, consistent with the Dreyfus model of skill acquisition,⁴ could progress from a novice who requires extensive supervision to verify AI-generated documentation; to an advanced beginner who identifies and corrects common errors; to a competent resident who independently verifies documentation and preserves accurate clinical reasoning; and eventually to a proficient or expert resident who integrates AI efficiently, recognizes subtle errors and potential bias, and can teach appropriate AI-assisted documentation. This staged framework should be evaluated empirically rather than assumed to improve educational outcomes.

Furthermore, faculty development is equally important. Supervising physicians must develop sufficient AI literacy to model appropriate use, identify errors, and provide meaningful feedback. Without faculty who can teach and assess AI-assisted documentation, competency expectations may remain aspirational.

Although AI competency frameworks for GME are emerging,⁵ the specific competencies involved in evaluating, editing, and cognitively integrating AI-assisted documentation within existing GME assessment structures remain insufficiently defined. Residency programs could begin by piloting assessment tools that evaluate residents' ability to verify and correct AI-generated documentation, preserve accurate clinical reasoning, and independently justify documented differential diagnoses and treatment plans. Such approaches could help determine whether the efficiency benefits of ambient AI can be achieved without compromising the development of essential clinical skills.

ARTIFICIAL INTELLIGENCE USE DISCLOSURE

The author used generative AI (ChatGPT) solely for language refinement and structural organization. All intellectual content, arguments, and final editorial decisions are the author's own.

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