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# AI Should Protect Clinical Thinking, Not Replace It:

## Lessons from a Conversation with Dr. Emily Leasure

Artificial intelligence is arriving in residency clinics faster than many physician educators expected. AI scribes are documenting encounters, evidence-search tools can answer clinical questions in seconds, and new applications appear almost weekly. While much of the conversation has focused on what AI can do for practicing physicians, another question may be even more important: **How should we train the next generation of internists in an era when AI is always available?**

To explore that question, I spoke with **Dr. Emily Leasure**, primary care physician, consultant, assistant professor, educator, and leader at Mayo Clinic Rochester's Division of Community Internal Medicine, Geriatrics, and Palliative Care. As Associate Program Director for the Internal Medicine Residency Program, Director of the Department of Medicine Primary Care Clinic, and Associate Dean of Admissions for Mayo Clinic Alix School of Medicine, she occupies a unique intersection of clinical care, medical education, and leadership. Our conversation focused less on technology itself and more on something much harder to preserve—clinical reasoning.

## The Foundation is Still Human Relationships

Before discussing artificial intelligence, Dr. Leasure reflected on what has most shaped her career.

Early in training, she realized that primary care is fundamentally about relationships. That applies equally to patients and to learners. Longitudinal relationships, she explained, have become the greatest source of both professional fulfillment and clinical effectiveness.

She also described how her understanding of primary care evolved over time. Early in training, she viewed medicine as identifying a problem, making a diagnosis, and fixing it. Experience taught her that much of primary care involves creating space for patients to tell their stories, especially when answers are uncertain.

"That therapeutic piece of just listening and creating a safe space where patients know that somebody really cares about what's going on and how they're feeling. That piece has been a source of fulfillment and joy because I can achieve that goal, even when I don't have all the answers."

That perspective becomes important when considering AI. If technology is going to improve medicine, it should create more time for those conversations—not replace them.

## From AI Skeptic to AI User

Unlike many early adopters, Dr. Leasure described herself as initially skeptical of artificial intelligence.

Her motivation for learning AI was not excitement about new technology, but responsibility as an educator.

She recognized that AI was becoming inevitable in medical training. Rather than allowing residents to explore unfamiliar tools without guidance, she felt obligated to understand them herself first.

"I realized I had to get on board so that I could protect the integrity of the training space."

That philosophy has influenced how AI has been introduced within her residency program: educators learn alongside trainees, establish guardrails together, and evaluate new tools before widespread adoption.

## Where AI Already Helps

Although cautious by nature, Dr. Leasure now uses AI regularly in clinical practice.

Among the tools she finds most valuable are:

- Ambient AI scribes during patient visits
- Evidence-search platforms for point-of-care clinical questions
- Automated chart summaries that rapidly extract relevant clinical history before acute visits

For her, these tools do not replace medical judgment—they reduce friction.

She particularly appreciates being able to answer unexpected patient questions immediately rather than researching them after clinic and sending follow-up messages later that evening. Reviewing supporting literature remains essential, but AI dramatically shortens the path to that information.

Interestingly, one area she has *not* embraced is AI-generated patient portal responses.

Despite recognizing the enormous burden of inbox management, she feels those responses often fail to sound like her own communication style. For a physician who has spent years building relationships with patients, authenticity still matters.

## The Greatest Risk Isn't Hallucination—It's Short-Circuiting Clinical Reasoning

Perhaps the strongest message from our conversation concerned education rather than technology.

Dr. Leasure worries less about dramatic AI errors than about changes in how physicians think.

She described reviewing AI-generated assessment and plans from ambient scribes and noticing that—even when they appear reasonable—they consistently fall short of what she develops herself after taking time to think through the case.

That reflective pause matters.

During documentation, physicians often reconsider differential diagnoses, remember additional details, or refine management plans. If clinicians begin accepting AI-generated assessments without deliberate review, they risk losing an important part of their own reasoning process.

For residents, that concern becomes even greater.

Experienced physicians understand what thoughtful clinical reasoning feels like because they developed those habits before AI existed. New trainees may never experience that process unless educators intentionally preserve it.

## **Building Guardrails Instead of Banning AI**

Rather than prohibiting AI, Dr. Leasure advocates structured implementation.

At Mayo Clinic in Rochester, first-year internal medicine residents do not immediately receive access to ambient AI scribes. Instead, trainees first learn documentation and diagnostic reasoning through traditional methods before incorporating AI later in training.

Even after implementation, faculty actively monitor how residents use the technology.

Documentation review now includes evaluating:

- How notes were created
- Whether residents edited AI-generated content
- Whether assessment and plans reflect independent clinical thinking
- Whether documentation quality improves appropriately over time

This approach requires additional faculty effort, but Dr. Leasure believes it is essential.

Technology should not eliminate feedback—it should increase the importance of thoughtful coaching.

## **AI Access Is Expanding Faster Than Expected**

Early in national discussions about AI education, many educators assumed advanced AI tools would remain limited to large academic medical centers.

Dr. Leasure no longer believes that is true.

Within months, she observed AI becoming available across a wide variety of institutions, including community hospitals and residency programs.

Her concern is no longer whether physicians have access. It is whether they are using secure, institutionally approved tools that appropriately protect patient information. As AI becomes increasingly accessible, privacy, governance, and appropriate oversight become more important than simple availability.

## **Looking Beyond Documentation**

When asked where AI could make the biggest difference over the next several years, Dr. Leasure focused on education as much as clinical care.

She envisions AI helping synthesize the many fragmented assessments residents receive—from faculty evaluations, simulation exercises, direct observation, and milestone assessments—into more individualized learning plans.

Rather than replacing educators, AI could help identify strengths, recognize gaps earlier, and personalize resident development.

Clinically, however, she returned to a familiar theme.

The greatest opportunity is reducing administrative burden so physicians can spend more time where they create the greatest value: with patients.

## **A Practical Approach to AI**

Dr. Leasure closed our conversation with advice that reflects her evolution from skeptic to thoughtful user.

For clinicians who remain hesitant, her recommendation is simple:

Try one tool that solves a real problem.

For clinicians already enthusiastic about AI, she offers an equally important reminder:

Never accept AI output without verifying it yourself.

Finally, she encouraged educators to learn alongside their trainees rather than pretending to have all the answers. AI is evolving too quickly for any individual to become an expert overnight. The

best learning environment may be one where faculty and residents explore new tools together while maintaining the clinical judgment that remains uniquely human.

## **What to Do Now with AI**

One of Dr. Leasure's most practical messages came at the end of our conversation.

**Start:** Experiment with one AI tool that meaningfully reduces administrative burden while preserving patient relationships.

**Stop:** Never assume AI-generated information is automatically correct. Every output deserves the same critical appraisal physicians apply to any clinical resource.

**Keep:** Continue learning alongside trainees. The future of medical education is unlikely to involve faculty teaching AI from a position of complete expertise. Instead, educators and learners will need to evaluate new tools together while protecting the clinical reasoning, professionalism, and human connection that define excellent primary care.

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