

Teaching Fellows About AI: Practical Strategies & Pitfalls

References:

1. AI-Related Competencies: <https://doi.org/10.1097/ACM.0000000000004963>
2. AAMC AI Skill Building Webinars: <https://www.aamc.org/learn-network/affinity-groups/group-educational-affairs/webinar-series-ai-skill-building-medical-educators>
2. NEJM article on Clinical Supervision of AI Use: <https://www.aamc.org/learn-network/affinity-groups/group-educational-affairs/webinar-series-ai-skill-building-medical-educators>
3. JACI IP Preparing Allergists to Practice in 2050 Using Artificial Intelligence: <https://pmc.ncbi.nlm.nih.gov/articles/PMC12697010/>

Risks of AI use:

- **Automation Bias:** Over-reliance on automated systems leading to errors.
- **Skill Erosion:** Risks of deskilling, mis-skilling, or "never-skilling" essential competencies.

To counter these, use the **DEFT-AI framework** to create educational moments when fellows use AI:

1. **Diagnosis:** Ask the learner to "think out loud" their clinical reasoning and describe their AI interaction (tools used, prompts).
2. **Evidence:** Probe for supportive/opposing evidence and ask how they verified the AI's safety and accuracy.
3. **Feedback:** Guide self-reflection on growth opportunities and AI literacy.
4. **Teaching:** Reinforce evidence-based medicine and promote AI literacy (e.g., asking AI to explain its reasoning).

AI Resources by ACGME Competency

AI tools can be adapted to address specific fellowship training requirements while maintaining privacy through "temporary chat" features.

ACGME Competency	AI Use Case & Recommended Tools
Basic Science & Clinical Knowledge	Use: Retrieval practice, study schedules, and interactive testing . Tools: NotebookLM (podcasts/flashcards), Gemini/Claude (practice tests), Consensus (peer-reviewed searches).
Patient Care	Use: Clinical decision support, drafting prior authorizations, and virtual patient simulations. Tools: OpenEvidence, UpToDate Expert AI, ddX by Sketchy, Claude (web app simulations)
Research & Quality Improvement	Use: Explaining protocols, data cleaning/visualization, and recruitment materials . Tools: Julius.ai (statistics), Nano Banana (recruitment posters)
Interpersonal & Communication Skills	Use: Converting conversations to documentation to improve eye contact and active listening . Tools: Ambient AI Scribes (Nabla, Abridge, Nuance DAX Copilot).

Note: Always verify AI outputs with reliable sources and ensure any tool used for research is approved by your IRB.