COOPERATIVE OF
AMERICAN PHYSICIANS

Using AI in the Medical Office

Deborah Kichler, RN, MSHCA

Dona Constantine, RN, BS

Monica Ludwick, PharmD

Disclosure to Learners

No planner, reviewer, faculty, or staff for this activity has any relevant financial relationships with ineligible companies.

Objectives/Outcomes:

Utilize AI technologies to engage patients in their care, enhance patient understanding, and improve communications between patients and healthcare providers.

Utilize AI technology for documentation to enhance the accuracy, thoroughness, and efficiency of patient medical records.

Evaluate the existing system infrastructure and work closely with AI professionals and vendors to ensure successful integration of AI technologies.

Create and enact protocols and guidelines for incorporating AI technologies in medical practice operations.

How AI is Transforming Healthcare
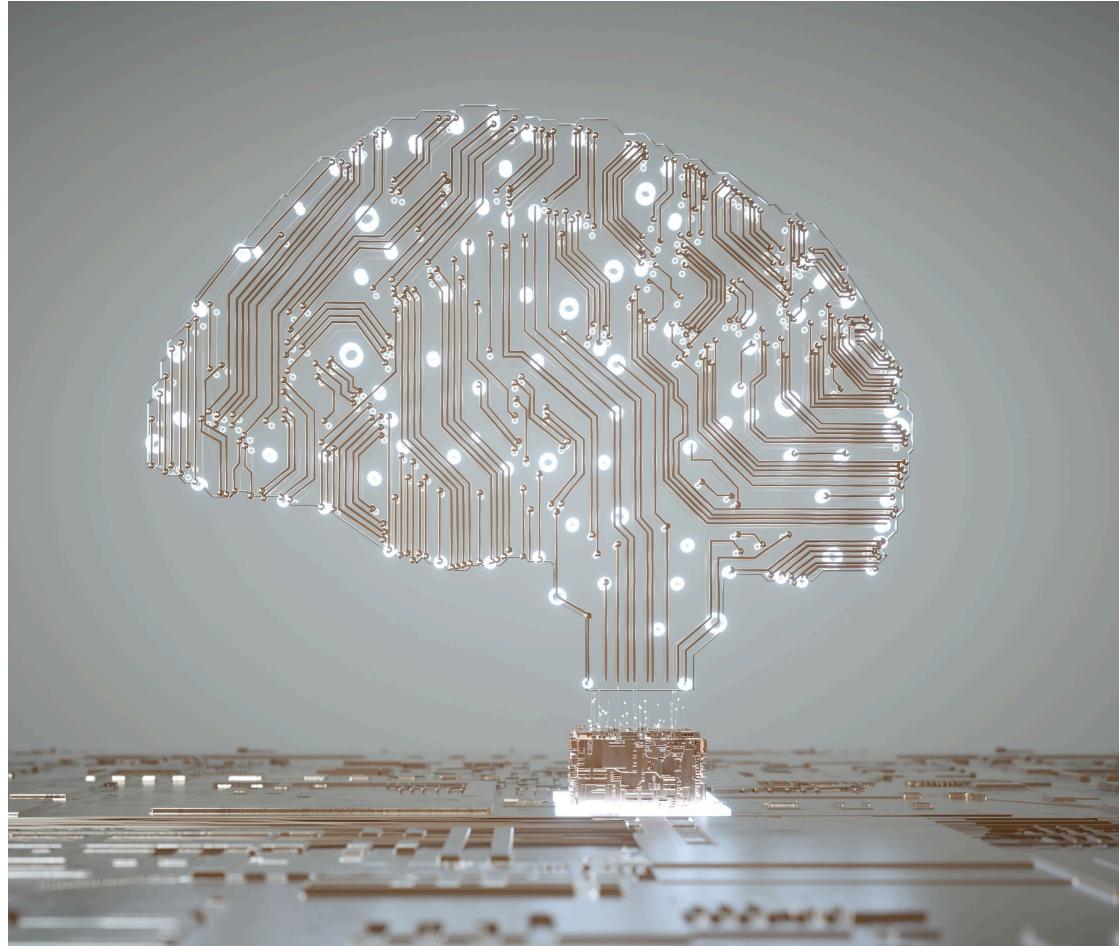
- Improved diagnosis and treatment
- Administrative tasks
- Predictive analytics
- Remote monitoring
- Data integration
- Drug discovery
- Medical-Legal

COOPERATIVE OF
AMERICAN PHYSICIANS

Predictive vs Generative AI

Predictive AI

Analyzes large historical data sets and identifies patterns to forecast future outcomes.

- Hospital Readmission Reduction
- Cancer Risk Prediction
- Sepsis Risk Prediction

Generative AI

Uses large language models (LLM) and natural language processing to generate humanlike interactions.

- Ambient Scribes
- Chatbots
- Diagnostic/imaging/specimen analysis
- Medical training and simulations

COOPERATIVE OF
AMERICAN PHYSICIANS

Role of AI in Healthcare

- Clinical Decision Support

- Personalized Medicine

- Automated Image Diagnosis

- Telemedicine and Remote Monitoring

- Administrative Efficiency

- Patient Engagement


COOPERATIVE OF
AMERICAN PHYSICIANS
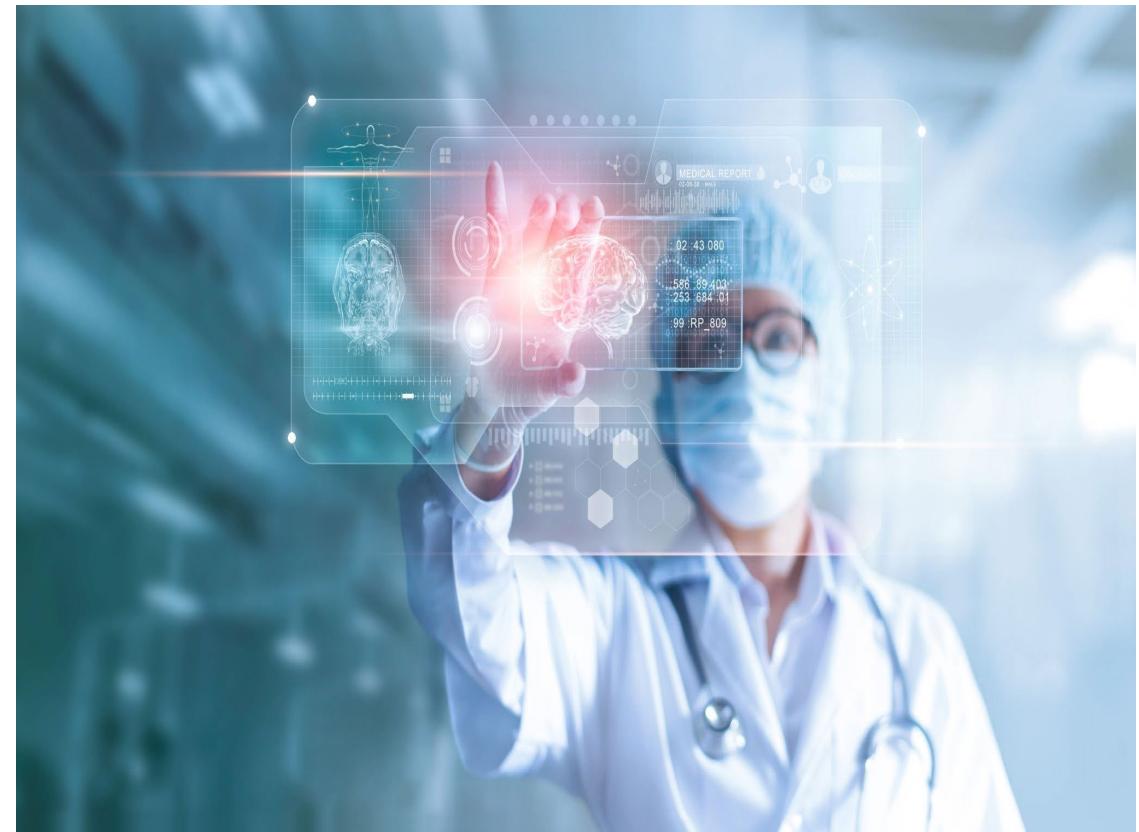
Practice Workflow with AI
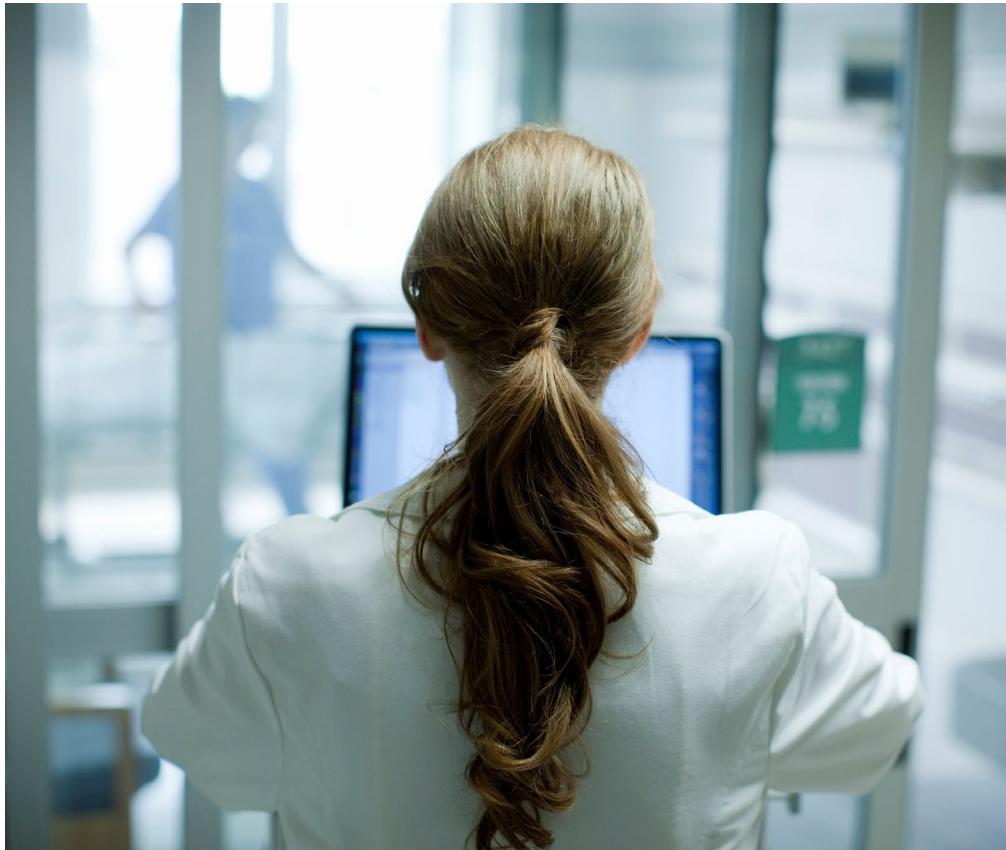
- **Operational Efficiency**
  - Virtual Assistants
  - Appointment Scheduling
  - Billing and Coding
- **Documentation**
  - Ambient Scribes
- **Clinical Decision Support**
  - Remote Monitoring
- **Patient Engagement**
  - Patient Portals
  - Chatbots
  - Education

COOPERATIVE OF
AMERICAN PHYSICIANS

Increased Efficiency and Productivity
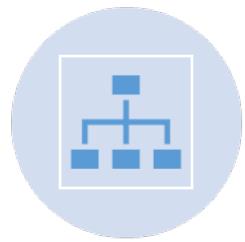
AUTOMATES ADMINISTRATIVE TASKS SUCH AS SCHEDULING, BILLING, AND DOCUMENTATION.
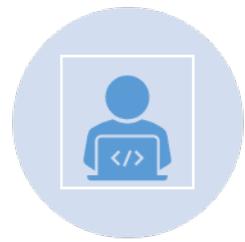
AI-BASED NATURAL LANGUAGE PROCESSING (NLP) TRANSCRIBES PHYSICIAN NOTES INTO EHRS.

OPTIMIZES APPOINTMENT SCHEDULING AND TRIAGE WORKFLOWS.

ENHANCES TEAM PRODUCTIVITY BY INTEGRATING DECISION-SUPPORT ALERTS IN REAL TIME.

COOPERATIVE OF
AMERICAN PHYSICIANS

Cost Savings

- Reduces administrative and operational overhead.

- Minimizes redundant testing and diagnostic errors.

- Enables early disease detection and preventive care.

- Lowers malpractice and billing-related costs.

Challenges of Using AI in the Office

CONDUCT THOROUGH RISK ASSESSMENTS BEFORE IMPLEMENTATION.

KEEP PATIENTS INFORMED AND OBTAIN CONSENT.

USE AI AS A DECISION-SUPPORT TOOL, NOT A REPLACEMENT.

MONITOR, AUDIT, AND UPDATE SYSTEMS REGULARLY.

PRIORITIZE PATIENT SAFETY, PRIVACY, AND ETHICAL CARE

From the Patient's Perspective

Ensuring Compliance and Evolving Regulations

COOPERATIVE OF
AMERICAN PHYSICIANS

Ethical and Regulatory Considerations

Data Privacy & Consent

Hallucination, Confabulation & Bias

Accountability

Data Privacy and Consent

Hallucinations

Confabulations

Your Brain is Making Up Stories!

Bias

Accountability

Maintain physician oversight – AI should assist, not replace, clinical judgment.

Developers must ensure algorithm reliability and documentation.

Institutions should define clear roles for AI monitoring and reporting errors.

Encourage explainable and transparent AI systems.

COOPERATIVE OF
AMERICAN PHYSICIANS

AI Risk Reduction Strategies

VERIFY RESPONSES AND VALIDATE SOURCES

BUSINESS ASSOCIATE AGREEMENT

CYBERSECURITY STRATEGY INCLUDES ENCRYPTION, ACCESS CONTROLS AND SECURITY AUDITS

PATIENT TRANSPARENCY

POLICY DEVELOPMENT

COOPERATIVE OF
AMERICAN PHYSICIANS

Integrating AI Into your practice

Start small → Involve your team

Choose clinician-centric tools → Monitor metrics

Stay updated
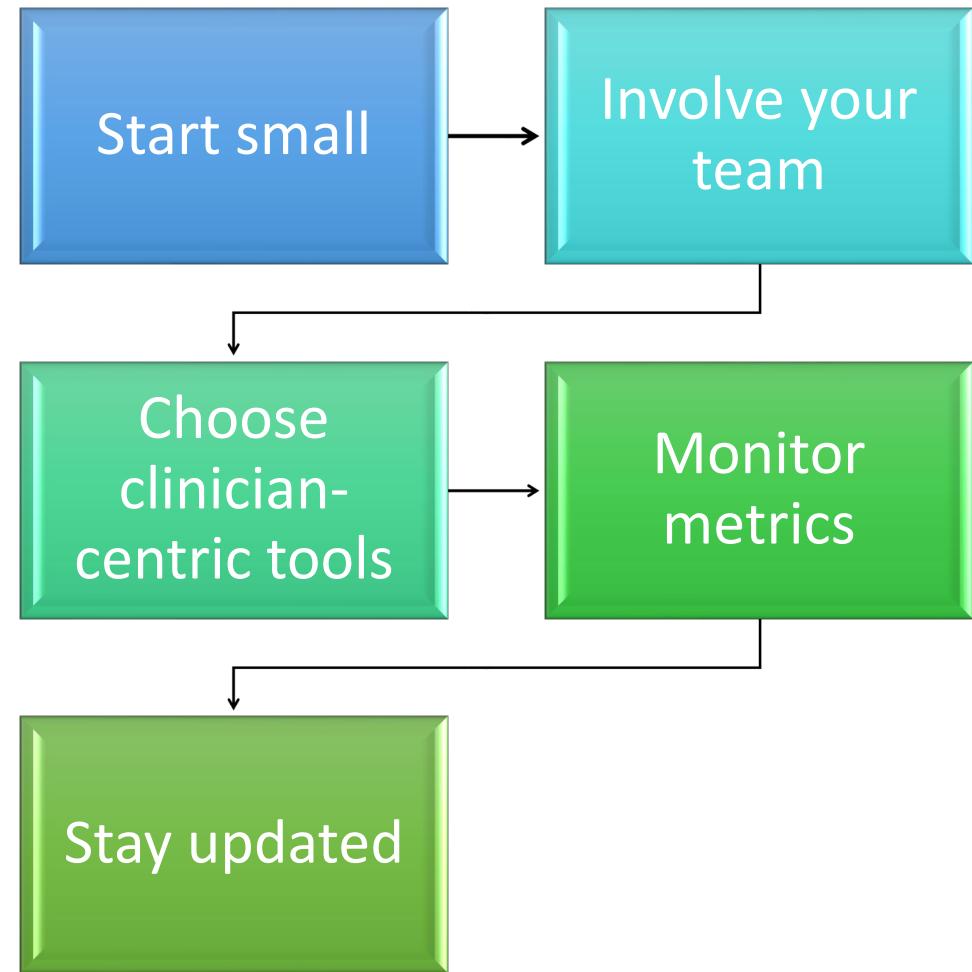
Integrating AI Into your practice

- **Where to start?**

  - Pick one area of your practice to focus on.
  - Begin with pilot projects rather than full-scale rollout.[1]
  - Accuracy, control, privacy and EHR integration are key before trusting AI.[2]
  - Clinical artificial intelligence quality improvement.
  - Risk-management tip: keep the first use-case low risk, avoid core diagnostic decisions initially, review vendor claims and performance.[1]

COOPERATIVE OF
AMERICAN PHYSICIANS

Integrating AI Into Your Practice

"Engagement equals trust. Trust equals adoption." -Stephen Covey

Engage Your Staff – Build Workflow & Culture

- Staff (nurses, medical assistants, front desk, billing) need to understand purpose, benefits, and roles.
- Clinician acceptance is critical.
- Workload impact, trust, risk—drive adoption.[3]

Open Communication

- Communicate why you're doing this (value-add, risk mitigation)
- Train staff on new workflows, roles, AI tool usage.
- Collect feedback from staff early – adjust workflows accordingly.
- Define governance: who reviews outputs, who escalates issues, who monitors performance.

Word of caution: Integrating AI without staff understanding can create workflow breakdowns, trust erosion, patient-safety concerns.

COOPERATIVE OF
AMERICAN PHYSICIANS

Integrating AI Into Your Practice

- **Key criteria for selecting tools**
  - Seamless integration with your EHR/workflow.[2]
  - Clinician control: tools that support, not replace decision-making.
  - Transparency & explainability: clinicians should understand how the tool works.[4]
  - Vendor due-diligence: data security, privacy, liability, accuracy, ongoing maintenance.

- **Fit the use-case**: e.g., documentation, pre-visit triage, chronic-disease monitoring, analytics—choose what your practice needs and can support.

- **Word of Caution:** Tools that are overly ambitious or mis-matched to workflow risk being under-used or causing harm.[5]

Integrating AI Into Your Practice

- **Monitor Metrics & Performance** [1]
    - Define success metrics up front: e.g., time saved per visit, documentation error rate, coding accuracy, patient satisfaction, staff satisfaction, workflow impact.
    - Monitoring is essential: AI models may degrade over time.
    - Establish an "AI-QI" (quality improvement) process: continuous monitoring, review of outputs, error tracking, reliance on human oversight.
    - Also monitor unintended consequences: patient-physician relationship changes, documentation quality, bias, trust issues.

COOPERATIVE OF
AMERICAN PHYSICIANS

Integrating AI Into Your Practice

- **Stay Updated – Regulation, Ethics, Technology**
  - Regulatory and ethical frameworks are evolving.[5]
  - **Be aware of liability**
    - Use-cases of AI in clinical decision-making raise issues of responsibility & oversight.[6]
  - **Technology evolves quickly**: stay current on vendor updates, change in AI functionality, security/privacy changes, vendor support.
  - **Governance**
    - Have policies for AI deployment, vendor oversight, data governance, auditing.
  - **Practice tip:** Review your AI-tool contracts annually, ensure vendor provides performance data, update training for staff, revisit use-cases.

COOPERATIVE OF
AMERICAN PHYSICIANS

Conclusion

- Thoughtful, strategic, and patient-centered AI adoption.
- **Start small** – focus on simple, high impact.
- Choose tools that **support**, not replace, clinical judgment.
- Prioritize **accuracy, privacy, and transparency**.
- Have a **QI process** – monitor, refine, improve.
- Maintain **strong governance** and ongoing **staff education.**
- AI amplifies, **not replaces**, physician expertise.
- **Goal:** Less time on screens, more time with patients.

**"AI won't replace physicians—
but physicians who use AI wisely may outperform those
who don't." -Jesse Ehrenfeld, MD, AMA president**

© shutterstock/VesnaArt

COOPERATIVE OF
AMERICAN PHYSICIANS

References

1. "Clinical artificial intelligence quality improvement: towards continual monitoring and updating of AI algorithms in healthcare." *BMJ Health Care Inform.* 2022/23.

2. "What medical practices need before trusting AI." The Intake (Tebra) Sept 17 2025.

3. "Physicians' perceptions of artificial intelligence: Focus on workload, risk, trust, clinical decision making, and clinical integration." *Healthcare (MDPI).* 2024/25.

4. Lekadir K, et al. "FUTURE-AI: international consensus guideline for trustworthy and deployable artificial intelligence in healthcare." 2023.

5. Iannone S, Kaur A, Johnson K.B. "Artificial Intelligence in Outpatient Primary Care: A Scoping Review on Applications, Challenges, and Future Directions." *J Gen Intern Med.* 2025.

6. Morell et al. "The oversight of autonomous artificial intelligence: lessons from nurse practitioners as physician extenders." *Journal of Law and the Biosciences*, Volume 9, Issue 2, July-December 2022.

Thank You

COOPERATIVE OF
AMERICAN PHYSICIANS