Michelle Hager
Managing Partner
Blue Cirrus Consulting
March 19, 2025

Agenda

- AMA Definitions and Guidance
- Revenue Cycle Usage in AI
- Largest Healthcare Tech Companies Using AI
- Case Studies
- ONC Guidance
- Payable CPT codes for AI
- Legal Considerations
- Current Bills
- Trends and Ethical Considerations

American Medical Association (AMA) Definition and Guidance on AI

- The AMA defines AI as **augmented intelligence** that supports, rather than replaces, human decision-making in medicine.
  - AI systems must be transparent, explainable, and evidence-based.
  - Ethical considerations should prioritize patient safety and privacy.
  - AI should be integrated into medical education to ensure proper use by healthcare professionals.
  - Developers and policymakers should collaborate with physicians to shape AI regulations
- https://www.ama-assn.org/press-center/press-releases/ama-issues-new-principles-ai-development-deployment-use

AMA Principles of AI

The American Medical Association (AMA) has outlined several benefits of augmented intelligence (AI) in healthcare while emphasizing the need for responsible oversight.

- Key benefits include:
  - Advancing Clinical Care – AI can enhance decision-making, improve diagnostic accuracy, and optimize treatment plans, leading to better patient outcomes.
- Reducing Administrative Burdens:
  - AI-driven automation can streamline tasks such as medical documentation, prior authorization processes, and claims management, allowing physicians to focus more on patient care.
- Clinician Well-Being:
  - By minimizing repetitive tasks and reducing burnout, AI can help create a more sustainable work environment for healthcare professionals and improve retention in a shrinking workforce.
- Enhancing Patient Safety:
  - AI systems, when properly validated, can help detect errors, flag potential risks, and provide clinical decision support to reduce medical mistakes.
- Promoting Health Parity:
  - Thoughtfully designed AI tools can help address disparities in healthcare access and treatment, provided the tools are developed with attention to bias and inclusivity.

https://www.ama-assn.org/system/files/ama-ai-principles.pdf

Revenue Cycle Usage of AI

Automated Claims Processing: AI-powered automation reduces human intervention in claims processing, ensuring faster and more accurate submissions.

Fraud Detection & Risk Analysis: AI algorithms analyze claim patterns to detect fraud, waste, and abuse, reducing financial losses.

Predictive Analytics for Denials: AI predicts claim denials based on historical data and suggests corrective actions to improve approval rates.

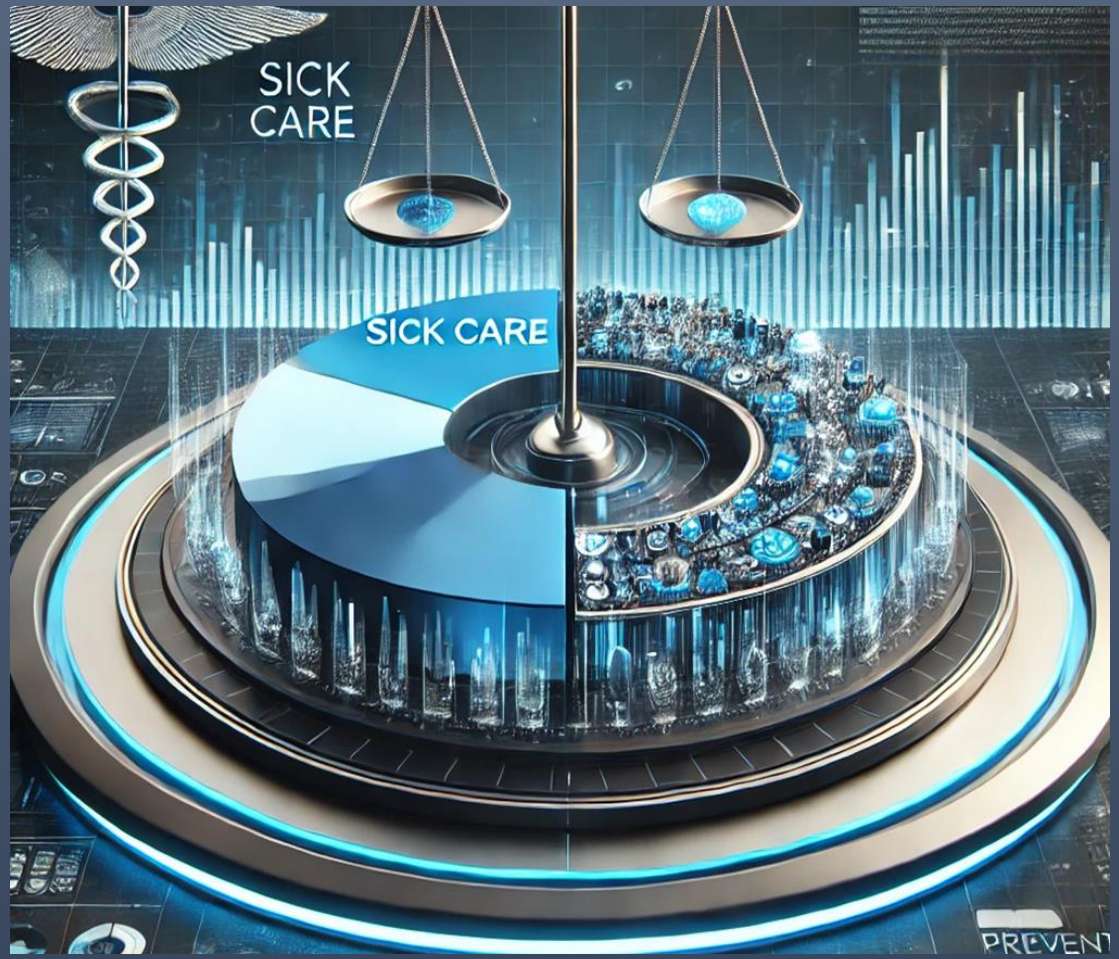
Real-Time Eligibility & Benefit Verification: AI checks patient eligibility and coverage before services are rendered, minimizing payment delays.

Revenue Cycle Optimization: AI enhances revenue cycle management by streamlining coding, billing, and collections, reducing administrative burdens.

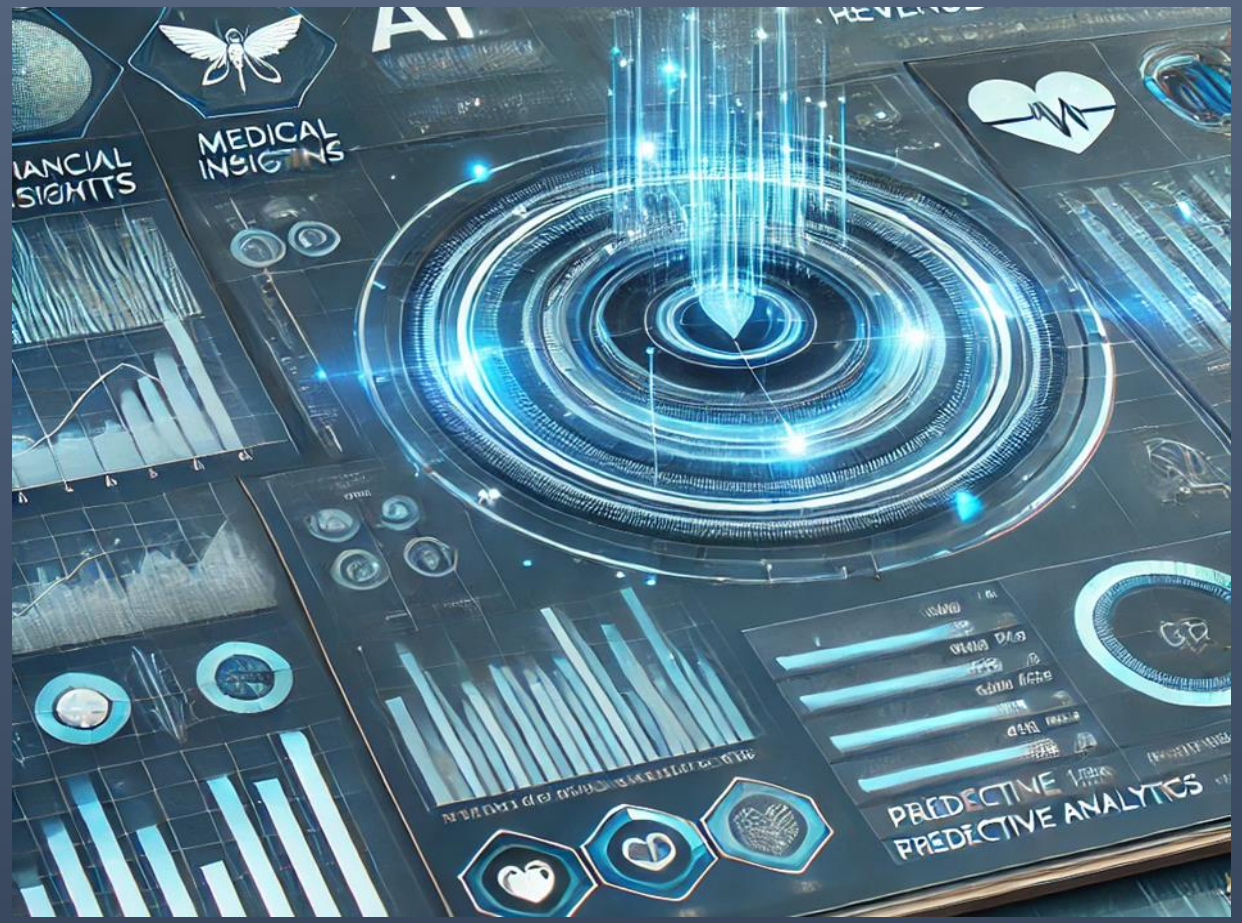
Natural Language Processing (NLP) for Documentation: AI-powered NLP extracts critical information from medical records to ensure proper claim coding and submission.

Appeals & Resubmissions: AI assists in identifying and correcting claim errors, helping healthcare providers appeal denied claims effectively.

Personalized Payment Plans: AI analyzes patient financial data to recommend tailored payment plans, improving collections while reducing financial stress on patients.



Largest Healthcare Tech Companies Using AI



- IBM Watson Health (now part of Merative), previously known for AI-driven diagnostics.
- Google Health and DeepMind, which develop AI models for disease detection and prediction.
- Microsoft Health AI, which integrates AI into clinical workflows.
- Amazon Health, which uses AI for patient engagement and data analytics.
- Epic Systems, which applies AI for predictive healthcare analytics

Case Study: Microsoft

- Microsoft's ambient voice AI in healthcare, specifically through Nuance's Dragon Ambient eXperience (DAX), is revolutionizing clinical documentation. This AI-powered tool records doctor-patient interactions and generates clinical notes using natural language processing. Originally requiring human review, newer versions like DAX Copilot have improved automation, reducing editing time and streamlining workflow for physicians. Vanderbilt University Medical Center has piloted this technology, expanding it across multiple specialties. Microsoft has leveraged generative AI advancements, particularly GPT-4, to enhance DAX's capabilities, achieving significant improvements in clinical note automation. The system is now used by over 600 major healthcare providers, generating millions of clinical notes monthly. Microsoft continues to refine the technology with real-time clinician feedback, aiming to improve efficiency and reduce administrative burden in healthcare settings

- https://www.microsoft.com/en-us/industry/blog/healthcare/2024/08/15/transforming-the-nursing-workflow-with-ambient-voice-and-ai/

Case Study: Nanonets

- a leading AI-based workflow automation platform, raised $29 million in a Series B funding round led by Accel. The funding round also saw participation from existing investors Elevation Capital, YCombinator and others. This takes the total funding raised till date to $42M.

- Nanonets' primary innovation is their ability to guarantee Straight Through Processing (STP), the percentage of data processed without any manual intervention. Other Generative LLMs tend to struggle with STP due to data hallucinations, hindering the large-scale adoption of Autonomous Agents for end-to-end tasks. The Turing test has evolved from humans being unable to differentiate an AI in conversation to humans being unable to differentiate an AI in performing tasks. Nanonets' Autonomous agents excel at performing tasks end-to-end. Additionally, their models, unlike other LLMs, learn instantly from new information, eliminating the need for complex training. Processing millions of documents monthly, Nanonets delivers over 90% STP rate, leading to significant productivity and cost savings.

- https://www.industryanalysts.com/031224_nanonets_allcovered/

Case Study: Epic

- Epic & Microsoft AI Collaboration: Epic has partnered with Microsoft to embed GPT-4 AI into EHRs. This AI assists clinicians in generating draft responses for patient communications and suggests data insights through Epic's "Slicer Dicer" tool, which helps providers analyze patient data more efficiently.
- Epic has introduced over 100 new AI capabilities, including tools that help doctors simplify medical instructions for patients, automate prior authorization processes, and assist in drafting insurance denial appeals.
- AI is also being integrated into Epic's MyChart app to provide personalized responses to patient messages, leveraging relevant medical history and lab results
- AI in Medical Imaging & Billing: Future AI features will include analyzing medical images to calculate wound measurements and potentially revolutionizing the insurance claims process by allowing direct submission through Epic's software, bypassing third-party intermediaries

- https://www.epic.com/epic/post/epic-and-microsoft-bring-gpt-4-to-ehrs/
  - May 2023

Case Study: BetterHelp

BetterHelp has faced controversy regarding its use of AI and its overall approach to mental health services. While BetterHelp primarily connects users with human therapists, concerns have arisen over the role AI plays in triaging and automating responses to patients.

Virtual Check ins and portal messages are billable CPT codes today. These automated responses were thought to be human intervention and clinical advice from the patient's perspective.

Office of the National Coordinator’s Guidance on AI

The Office of the National Coordinator for Health Information Technology (ONC) has issued guidance on the responsible use of AI in healthcare.

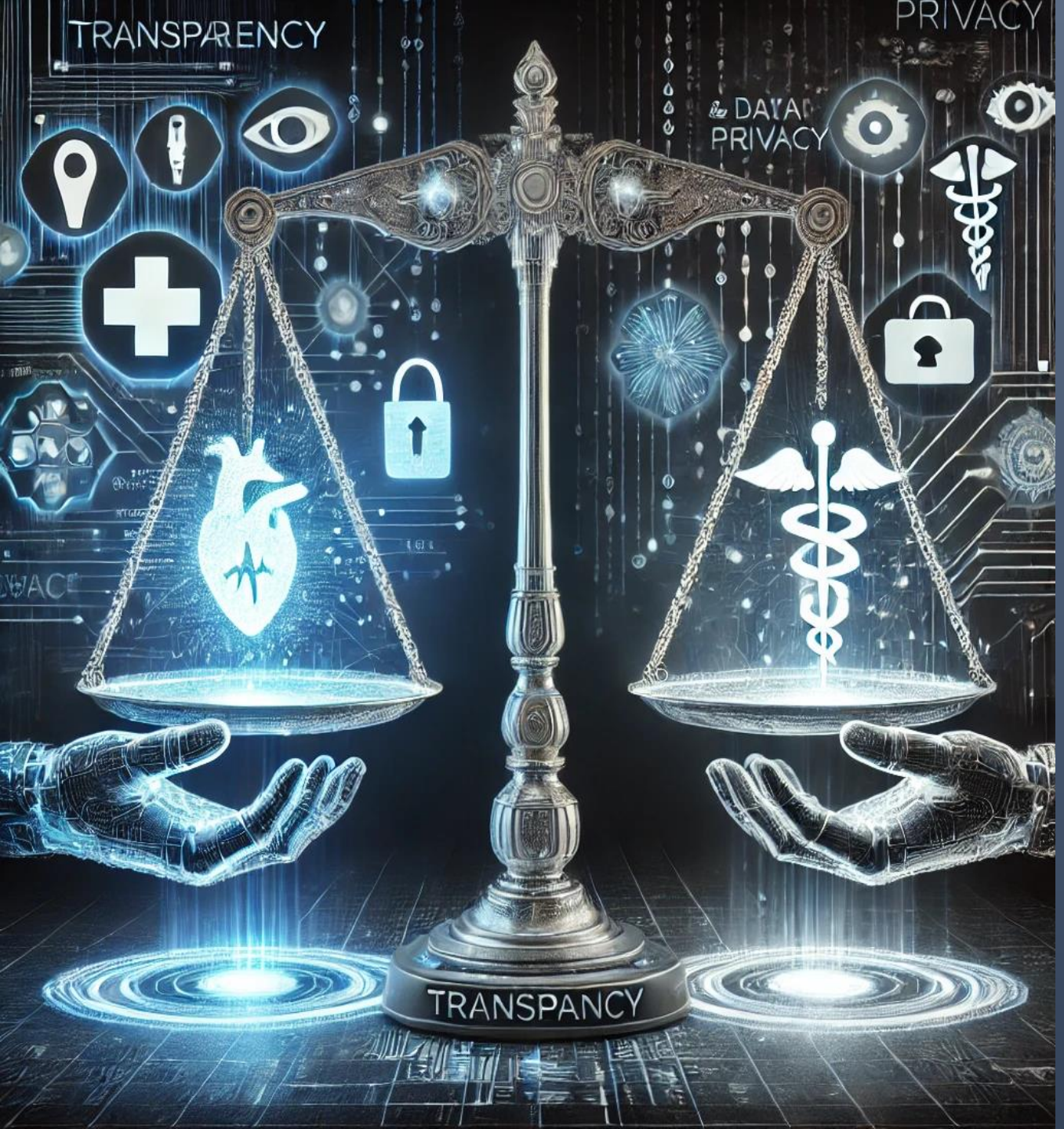
Key aspects of the ONC’s approach include:

- **FAVES Principles**: AI models should be Fair, Appropriate, Valid, Effective, and Safe.
- **Transparency**: AI-generated content should be clearly disclosed, ensuring clinicians and patients understand when AI is used.
- **Risk Management**: AI tools should undergo risk analysis and mitigation to prevent harm, aligning with the NIST AI Risk Management Framework.
- **Governance**: Organizations using AI must track applications, establish policies, and monitor AI outputs to ensure they meet safety and effectiveness standards.
- **AI in Certified Health IT**: AI-driven predictive decision support interventions (DSIs) must follow ONC regulations for transparency, data traceability, and user control.

Example Current Payable CPT code

- CPT code 92229 is used for retinal imaging with automated AI analysis to detect or monitor diseases such as diabetic retinopathy. This code allows primary care providers (PCPs) to perform and bill for AI-driven diabetic eye exams without referring patients to an ophthalmologist.
- Usage of CPT 92229 - Designed for point-of-care diabetic eye screenings using AI-based image interpretation.
- Used in primary care settings to improve access to diabetic retinopathy screening, reducing the need for specialist referrals.
- Helps improve Healthcare Effectiveness Data and Information Set (HEDIS) scores and Star Ratings for healthcare providers.
- Meets MIPS (Merit-based Incentive Payment System) Measure 117, which incentivizes providers for conducting diabetic eye exams.
- Reimbursement & Pricing: The national average reimbursement rate for CPT 92229 is approximately $50 when billed to Medicare and other insurers.
- Private payers and CMS (Centers for Medicare & Medicaid Services) offer various incentive programs to encourage its use

- https://www.bcbsm.com/amslibs/content/dam/public/providers/documents/star-measure-tip-sheet-eye-exam-patients-diabetes.pdf



Legal Cases in AI

UnitedHealthcare & nH Predict Algorithm is facing a class-action lawsuit alleging that its AI tool, nH Predict, was used to deny extended care to elderly patients. The lawsuit claims that the AI was designed to cut costs by prematurely discontinuing coverage for post-acute care, such as skilled nursing and in-home recovery. Court documents indicate that around 90% of these denials were reversed upon appeal, suggesting that the algorithm was systematically incorrect. The lawsuit argues that this practice violates insurance laws and patient contracts.
https://thelegaljournal.com/

Humana is also being sued for allegedly using the same AI tool, nH Predict, to limit post-hospital care. The lawsuit claims that Humana's employees were pressured to adhere to AI-generated predictions rather than medical necessity, leading to an increase in denied claims for rehabilitation and skilled nursing services.

Impact on Medicare Advantage Beneficiaries

These lawsuits highlight concerns that AI-driven decisions may prioritize cost reduction over patient care, potentially forcing seniors to pay out-of-pocket for medically necessary services or discontinue care prematurely.

https://www.classaction.org/healthcare-algorithm-scandal-lawsuit

Current State Bills and Regulations

- **California:AB 3030**: Requires healthcare providers to disclose when AI is used in patient communications.SB 1120: Ensures that decisions about medical necessity cannot be made solely by AI without input from a licensed provider.
- **Colorado:SB 24-205**: Regulates high-risk AI systems in healthcare, requiring transparency and safeguards against algorithmic discrimination.
- **Illinois:HB 5116**: Mandates annual impact assessments for automated decision-making tools in healthcare.
- **Rhode Island:HB 8073**: Requires insurance coverage for AI-based breast tissue diagnostic imaging if reviewed by a qualified physician.
- **Utah:SB 149**: Establishes AI disclosure requirements and regulatory oversight.
- **Washington:SB 5838**: Creates a task force to assess AI applications in healthcare.
- **Vermont HB 410** laws to assess AI risks and develop ethical guidelines for safe implementation

- https://natlawreview.com/article/emerging-trends-ai-governance-insights-state-level-regulations-enacted-2024

Trends and Ethical Considerations

- Patient trust development impacted with AI usage and potential for insurance industry changes which may be difficult for the public to navigate or understand.
- OMB models defined over utilization of care for virtual care services which scored bills high causing them to abandon a widespread payment model and only carve outs like RPM (remote physiological monitoring)
- Other states are considering or implementing roundtables or AI boards to develop ethical use practices for payers, health systems and researchers.
- Patient advocates to teach how AI is being used to educate the public.

"Innovation doesn't necessarily improve cost structures…it extends life and improves outcomes." Paul Hlivko, EVP and Chief Information and Digital Officer at Wellmark® Blue Cross® and Blue Shield®

Thank you for your time and engagement with this significance topic for the future of healthcare

Michelle Hager
Managing Partner
Blue Cirrus Consulting
Michelle.hager@blue-cirrus.com
864-704-2003

All images were AI generated