

Day One Ready: Mastering AI

PT Learning Institute
Disruptive Innovations Summit
2025

CJ Morrow, PT, DPT, CPHQ, Orthopedic Clinical Specialist

Caroline “CJ” Morrow, PT, DPT, OCS, CPHQ

Clinical Quality Senior Analyst, Hinge Health

- **Develops and Monitors AI tools** for clinical data analysis and quality assessment
- **Co-Chair, Frontiers in Rehabilitation, Science and Technology** advocating for responsible AI integration in PT Practice
- **Bridges clinical practice and technology innovations** with experience as a clinician at Moss Rehab and Hinge Health and quality and performance improvement at Hinge Health and Johnson & Johnson



Disclosure Statement: I have not received any direct compensation for this presentation. The views expressed are my own and do not necessarily represent the official positions of these organizations. I have no proprietary interest in any product, device, or service mentioned in this presentation.

AI-Comfortable to AI-Competent

A New Imperative for PT Education in an Era of Expanding Practice

AI is Everywhere

Four Areas of Focus:

1. Data Quality and Analysis
2. Deskillling
3. Confidence Paradox
4. Quality Mindset

Practice Implementations to consider adding to your curriculum next week.



Day One Reality: AI Systems PTs Already Face



The AI - Technological Landscape Awaiting Your Graduates

- Documentation Augmentation
- Clinical Decision Support
- Treatment Planning and Optimization Tools
- Outcome Prediction and Prognosis Tools
- Remote Monitoring Systems
- Movement Analysis and Biomechanics
- Patient-Facing AI
- Administrative Assistants
- Reimbursement and Coding Assistance
- Medical Research and Education
- Quality and Safety Applications
- Human Resources and Recruitment

Garbage In, Garbage Out: Documentation Foundation

Why Quality Clinical Notes Drive Quality AI Outcomes

- **Beyond Clinical Documentation**
 - Quality AI depends on good training, which is only possible with quality data
 - Many AI systems are local and trained on hospital or clinic data.
- **Essential Data Analysis Skills**
 - EHRs transform clinical notes into analyzable data
 - Protecting PHI when using AI Tools requires data cleaning
 - Interpreting patterns identified by AI with clinical context



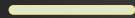
When AI Thinks, Do PTs Stop? The Deskilling Danger

Preventing Automation Bias and Dependency in New Graduates

Progression of Automation Dependency



Convenience



Confidence Erosion



Skill Atrophy



Dependency

New Graduates are most vulnerable

- Limited clinical experience provides fewer memory anchors to counter AI suggestions
- Productivity pressures incentivize accepting AI recommendations without critical evaluation
- Natural Tech comfort can lead to overconfidence in AI capabilities

The Confident PT meets the Confident



Building resilient clinical judgment in an automated world

- Confidence Paradox
 - AI can simultaneously boost and undermine clinical confidence
- Experience Gap
 - Limited practice history makes countering AI difficult
- Disagreement Anxiety
 - Tendency to question their expertise when faced with contradiction to an expert

Strategies to Foster New PT Confidence:

1. Teaching how AI generates recommendations and its limitations
2. Structured practice evaluating and sometimes rejecting AI suggestions
3. Practicing how to explain clinical reasoning that contradicts AI
4. Regular feedback on appropriate levels of certainty in clinical judgement

Human in the Loop: Quality Oversight

When the AI Assists, but the PT Remains Accountable

- Unchanging Professional Responsibility
 - PT's Practice is the PT's legal responsibility
 - Documentation Realty
- Quality Verification as Harm Prevention
 - Recognizing Pattern Variations
 - Evaluate the Critical Aspects
- Privacy Protection as Professional Duty
 - PHI Safeguarding
 - Patient Transparency
- Building a Quality Mindset
 - Does this enhance or detract from care?
 - Should AI assist here or should my judgment prevail alone?



Monday Morning

You Don't need a curriculum overhaul to prepare PTs to lead in AI Integration now

- Framework
 - Technical Competence: Understanding AI Tools
 - Critical Evaluation: Questioning and Verifying
 - Ethical Application: Patient Centered Care
 - Continuous Learning: Fostering Curiosity
- Three Steps
 - Start Small: Add one AI verification exercise next week
 - Build Awareness: Discuss AI ethics when using tech
 - Create Balance: Assignment that require both AI and independent clinical reasoning



Key References & Recent Readings

- Peterson Health Technology Institute: Adoption of Artificial Intelligence in Healthcare Delivery Systems: Early Applications and Impacts. 2025
- Bhuyan, Soumitra S., Vidyoth Sateesh, Naya Mukul, Alay Galvankar, Asos Mahmood, Muhammad Nauman, Akash Rai, Kahuwa Bordoloi, Urmi Basu, and Jim Samuel. "Generative Artificial Intelligence Use in Healthcare: Opportunities for Clinical Excellence and Administrative Efficiency." *Journal of Medical Systems* 49.1 (2025).
- APTA HOD P07-24-12-11. Digital Health Technologies, Digital Therapeutics, and Artificial Intelligence in Physical Therapy Practice. 2024
- APTA HOD P07-24-10-09. Ethical and Effective Integration of Artificial Intelligence Across Physical Therapy Practice, Education and Research. 2024
- Health Care Artificial Intelligence Code of Conduct Project
- Rezaeikhonakdar D. AI Chatbots and Challenges of HIPAA Compliance for AI Developers and Vendors. *J Law Med Ethics*. 2023
- Duffourc M, Gerke S. Generative AI in Health Care and Liability Risks for Physicians and Safety Concerns for Patients. *JAMA*. 2023
- Feske-Kirby K, Shojania K, McGaffigan P. Artificial Intelligence in Health Care: Implications for Patient and Workforce Safety. Boston: Institute for Healthcare Improvement; 2024