The Future of the Healthcare Revenue Cycle

Speaker

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Course Objectives

Understand how technology-driven innovations in the healthcare revenue cycle have the potential to **enhance efficiency, accuracy, security, and financial outcomes** while benefiting patients and healthcare providers.

Discover best practices to integrate AI and other healthcare technologies into your workflow.

Leverage technology to streamline revenue cycle tasks and improve coding, billing, payment processing, and claims management.

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Agenda

1. Revenue Cycle: History & Current State

2. The Role of Emerging Technology
   - Artificial Intelligence
   - Understanding Blockchain
   - The Power of Predictive Analytics

3. Practical Next Steps and How-To Advice

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Where We Are and Where We've Been

History of Technology & Revenue Cycle Functions

Traditional Revenue Cycle

- Manual Processes
- Paper-based Systems

Early Digitalization

- Electronic Health Records
- Billing Software

Current Tech Advancements

- AI
- Blockchain
- Predictive Analytics

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Current State of the Revenue Cycle

Covers admin and patient-facing processes from the appointment to when final bill paid

Increasingly complex, with more stakeholders and systems

Faces many challenges
- Inefficiencies
- Specialization
- Billing & Claim Management
- Delayed & Incomplete Payments

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Leveraging Technology in the Revenue Cycle

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Differentiating Among Emerging Technologies

Platforms

Automation/RPA
Machine-driven execution of processes (often UI-based)

Blockchain
Secure transaction management platform

Performers

Natural Language Processing (NLP)
AI-adjacent capability for machines to understand conversational inputs

Machine Learning (ML)
Determination and application of segmented types and outcomes to better analyze data sets

Artificial Intelligence (AI)
Synthesis of data to enable machine-driven decision making

Predictive Analytics
Using data analyses to predict outcomes based on prior observations

Critical Principles

1

Thoughtful integration design

2

Clear, well-defined underlying processes

3

Balance of technology and human elements

Leveraging Technology In the Revenue Cycle

AI

Coding
Billing
Claims

Blockchain

Security
&
Transparency

Predictive Analytics

Trend
Identification &
Issue Resolution

Artificial Intelligence

ChatGPT

☀️
Examples

⚡
Capabilities

⚠️
Limitations

Examples	Capabilities	Limitations
"Explain quantum computing in simple terms" →	Remembers what user said earlier in the conversation	May occasionally generate incorrect information
"Got any creative ideas for a 10 year old's birthday?" →	Allows user to provide follow-up corrections	May occasionally produce harmful instructions or biased content
"How do I make an HTTP request in Javascript?" →	Trained to decline inappropriate requests	Limited knowledge of world and events after 2021

Send a message   ➤

Free Research Preview. ChatGPT may produce inaccurate information about people, places, or facts. ChatGPT July 20 Version

1. **AI is not an "Easy Button"** to solve all inefficiencies and problems

2. Key capability is the **ability to synthesize large and complex data sets**

3. Coupled with NLP, it **offers a platform for technological innovation** across a number of fields

4. AI, as with most tools, remains an **enhancement to human abilities**

Benefits of AI in the Revenue Cycle

1

Primary use in discrete and data-heavy functions

(e.g., coding, billing and claims management)

2

Emerging uses across synthesis-driven functions

(e.g., complex coding, denial management)

3

Provides Efficiency, Accuracy and expanded Automation capabilities

Keep Top of Mind

Current Capabilities

- Automation
- Predictive modeling
- Increased efficiency

Limitations

- Dependence on Quality Data
- Cost
- Regulatory Issues

Future Developments

- Enhanced Accuracy
- Increased Integration & Interoperability
- Advanced Predictive Analytics

Understanding Blockchain

What Is It? How Does It Work?

- ✓ **Distributed Ledger / Decentralized Database**

- ✓ **Highly Secure and Transparent**

- ✓ **Reduces Possibility of Fraud**

Potential Benefits for the Revenue Cycle

Secure and Transparent Billing System	**Secure Patient Data-Sharing**	**Improved Coordination of Care**
Greater Accuracy of Coding	**Ability to Trace Transactions**	**Overall Improved Efficiency**

Example of a Blockchain-Enhanced Revenue Cycle

Each transaction is securely recorded
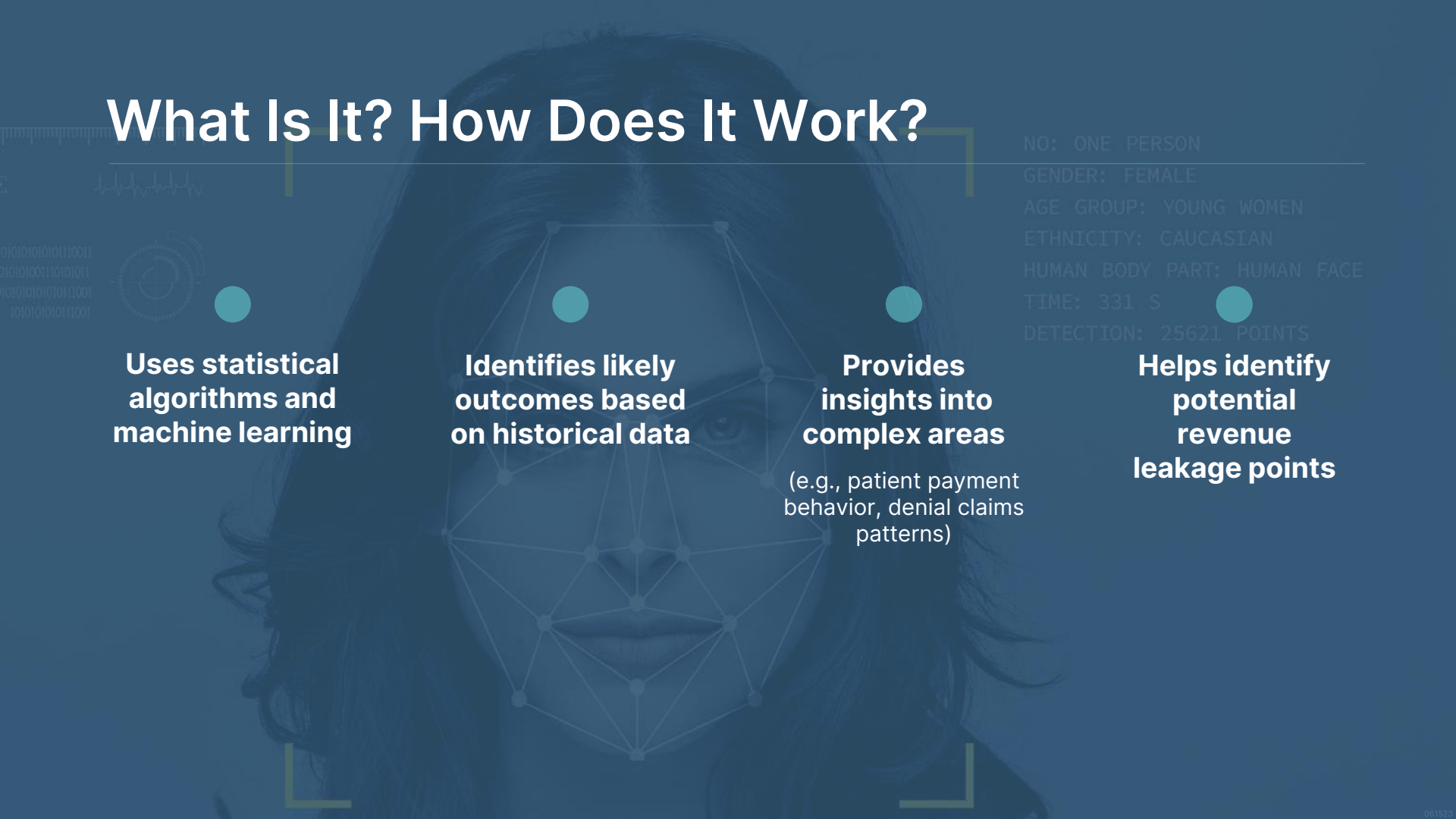
✓ Every stakeholder has access to reliable, transparent data

✓ Fewer disputes

✓ Increased efficiency and a better patient experience

Payment Processing

Patient Appointment Scheduling

Secure Patient Data Sharing

Claims Submission

Coding and Billing
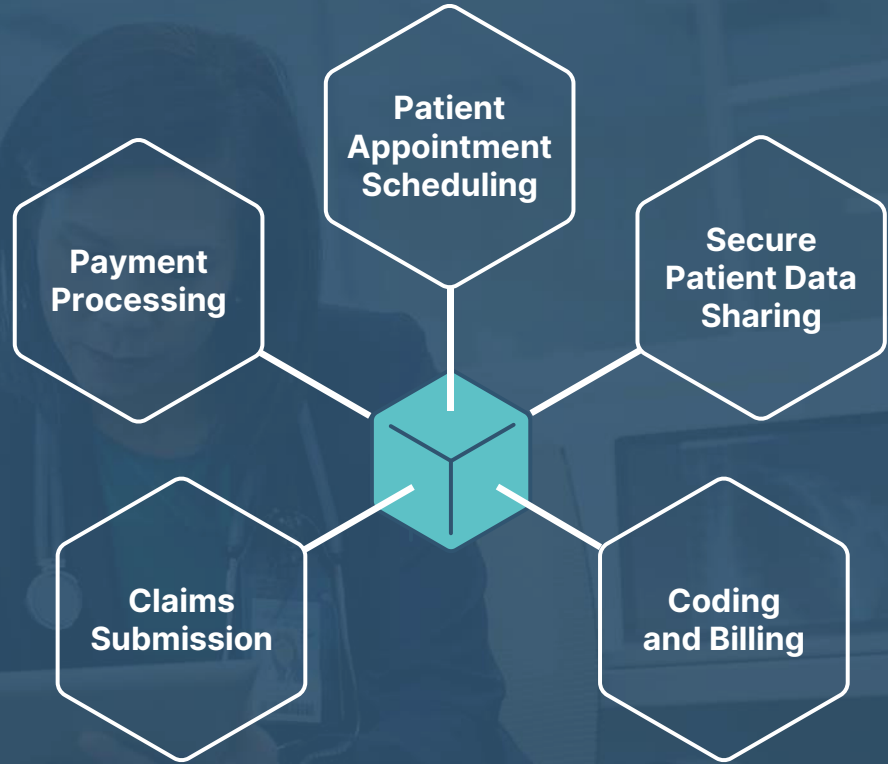
The Power of Predictive Analytics

What Is It? How Does It Work?

Uses statistical algorithms and machine learning

Identifies likely outcomes based on historical data

Provides insights into complex areas

(e.g., patient payment behavior, denial claims patterns)

Helps identify potential revenue leakage points

Use Cases of Predictive Analytics Mind

Risk Stratification for High-Cost Claims

- Identify patients likely to generate high-cost claims
- Providers manage these patients to reduce costly hospital admissions or readmissions

Prediction of Claims Denials

- Analyze historical data to identify patterns
- Indicate issues such as coding issues or missing documentation
- Reduce future denials

Estimation of Patient Ability to Pay

- Analyze socio-economic data
- Inform discussions on payment plans or charity care
- Reduce bad-debt write off

Synergy: AI and Predictive Analytics

AI for Automation & Efficiency

+

Predictive Analytics for Foresight & Decision Making

=

Intelligent Prediction & Automation

Synergy: AI and Predictive Analytics

When **AI and predictive analytics** work together, we get a system that's not just efficient, but also **INTELLIGENT.**

Example: Integrating AI and Predictive Analytics in Claims Management

Smarter process

- ✓ More efficient
- ✓ Adaptive
- ✓ Improvement across revenue cycle

Claims Creation

AI + Predictive Analytics

Risk Assessment

Review & Feedback Loop

Automated Handling

Risk Points In Transitioning to Advanced Technologies

Data Security & Privacy	**Integration & Interoperability Issues**	**Workforce Training & Adoption**	**Cost & ROI**
Patient Trust & Acceptance	**Provider Resistance to Change**	**Over-reliance on Technology**	**Potential Impact on Employment**

The Future of the Revenue Cycle

- ✓ **Future looks promising**

- ✓ **Will improve patient care**

- ✓ **Administrative tasks streamlined**

- ✓ **Resources optimally used**

- ✓ **Focus is rightfully on the patient**

Questions

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Thank You

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