

DRIVING **CHANGE 2023**

THE URGENT CARE CONVENTION

UCA URGENT CARE
ASSOCIATION®



COLLEGE OF
URGENT CARE
MEDICINE

Autonomous Medical Coding

How it can benefit urgent cares

March 2023



Personal Background

Clinical Experience

- Associate Professor (Hon) at University of Alabama at Birmingham
- Clinical cardiologist, Birmingham VA Medical Center

Research Experience

- PhD from UTSPH, BCM
- Research grants at UAB
- Artificial Intelligence

> 50 original publications

in personalized medicine and
statistical genetics

Cofounder and CEO
XpertDox

Presentation Outline

1. What is the **current state** of traditional medical coding?
2. What is **autonomous** (AI enabled) medical coding?
3. What are the **benefits of AI** enabled medical coding?
4. What are the **potential risks of AI** enabled medical coding?
5. How do you **select an autonomous medical coding solution** for your clinics?



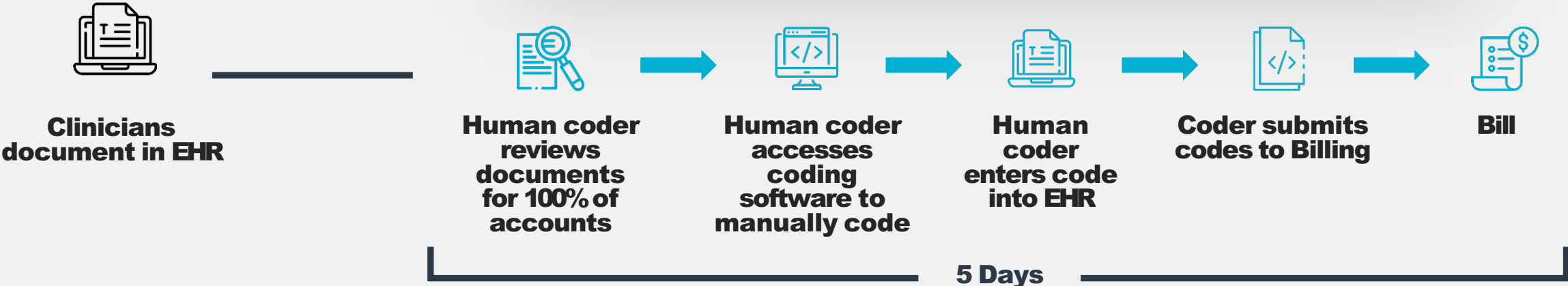
A person's silhouette is seen from behind, looking out over a city skyline at dusk. The Freedom Tower is the most prominent building, with its spire reaching into a cloudy sky. Other skyscrapers are visible, some with lights on. The scene is framed by dark vertical bars, suggesting a window or a screen.

Traditional Medical Coding

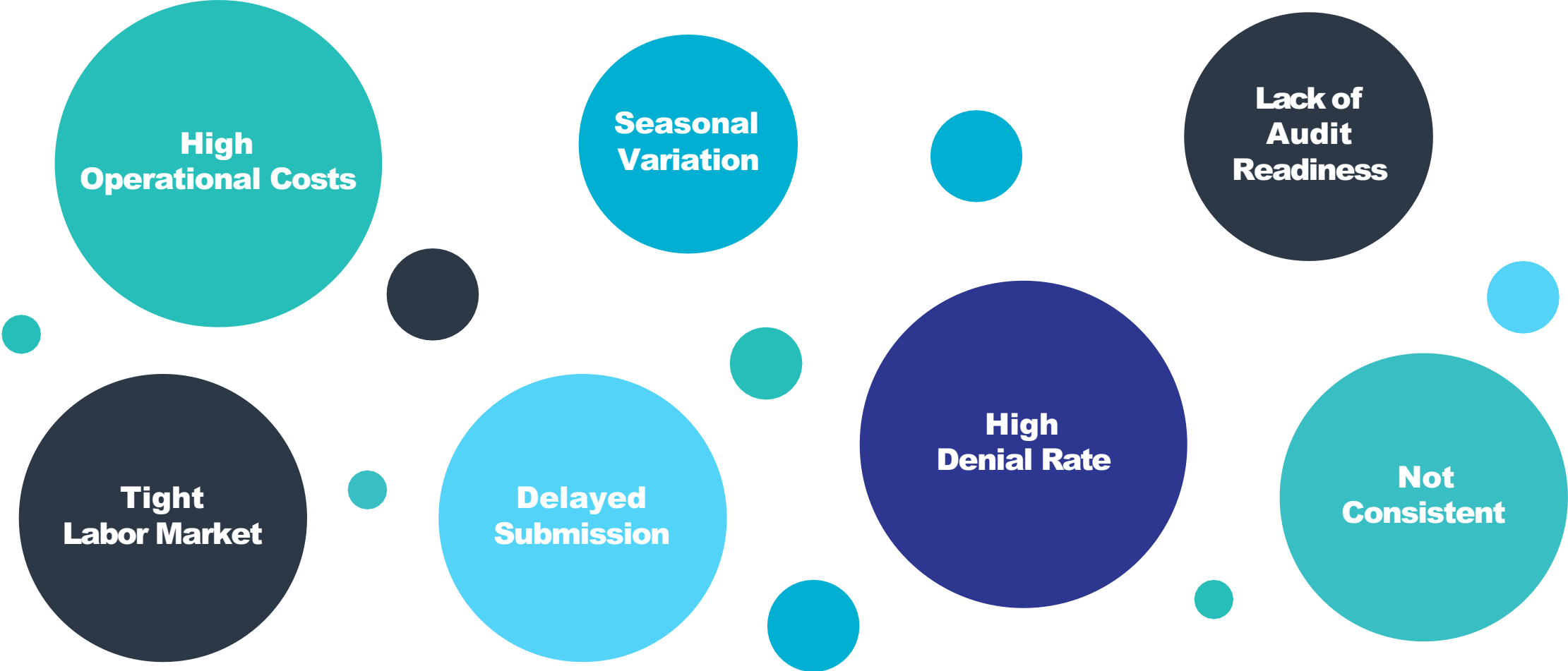
Current State of Affairs

Traditional Manual Coding

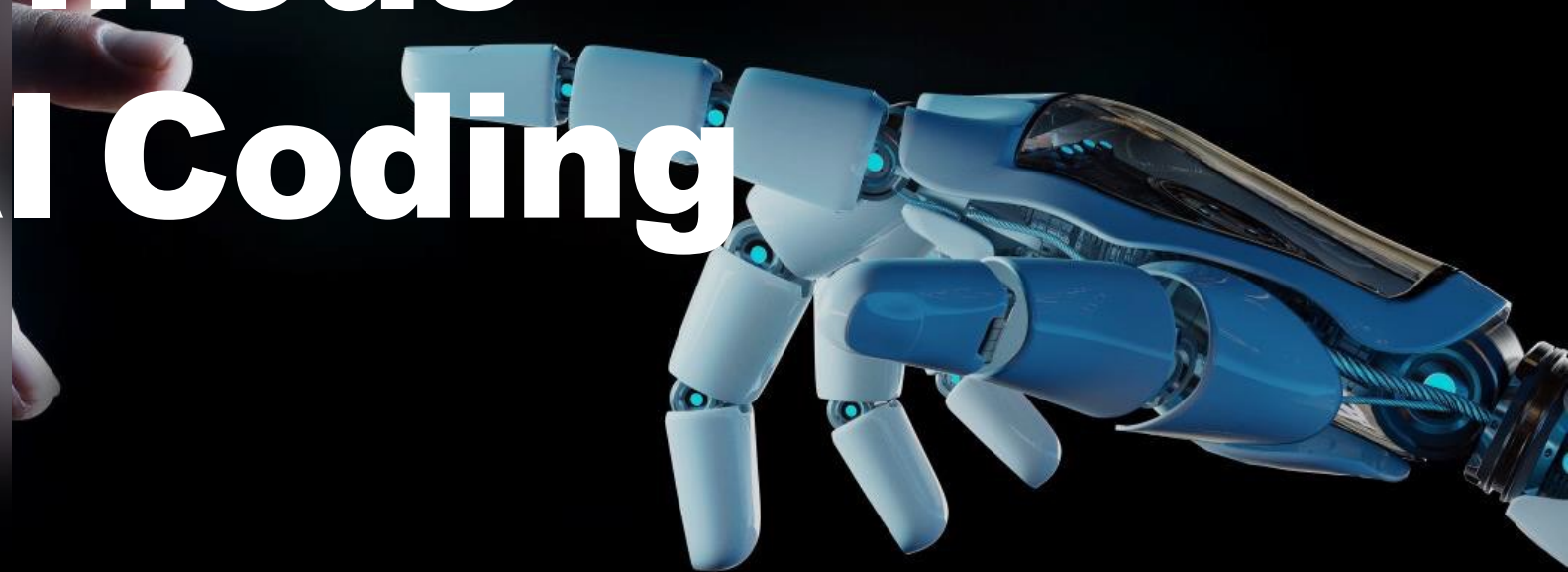
Traditional Manual Coding (Current State)



Traditional Manual Coding: **Problems**



Autonomous Medical Coding



What is autonomous medical coding?

Uses AI and machine learning algorithms to automate the process of medical coding

Features

EHR Integration

Automated data import and posting claims to payor

End to end medical coding

CPT including E&M, HCPCS, Bundled, ICD

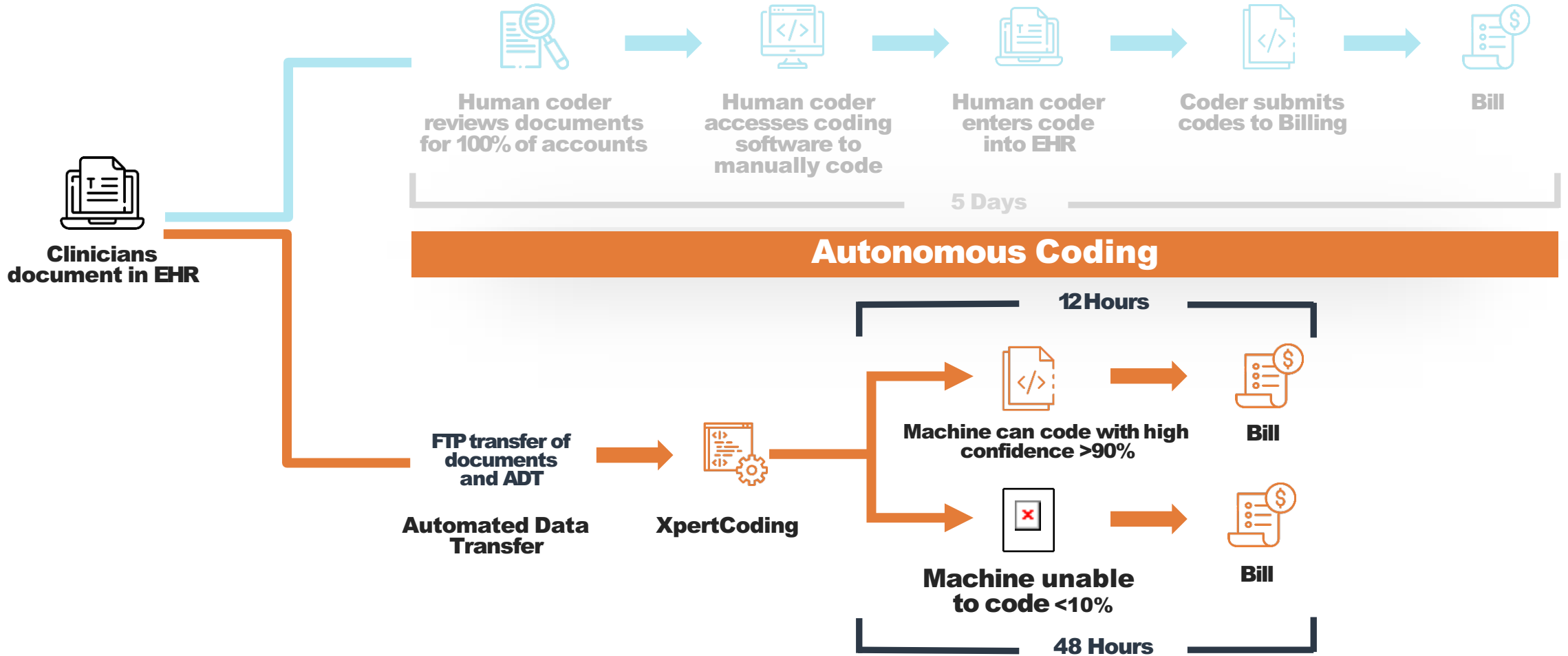
Client / Payor specific Coding

Fee schedule, carve outs

Natural Language Processing

No templates, no human intervention required

Traditional Manual Coding vs. **Autonomous Coding**

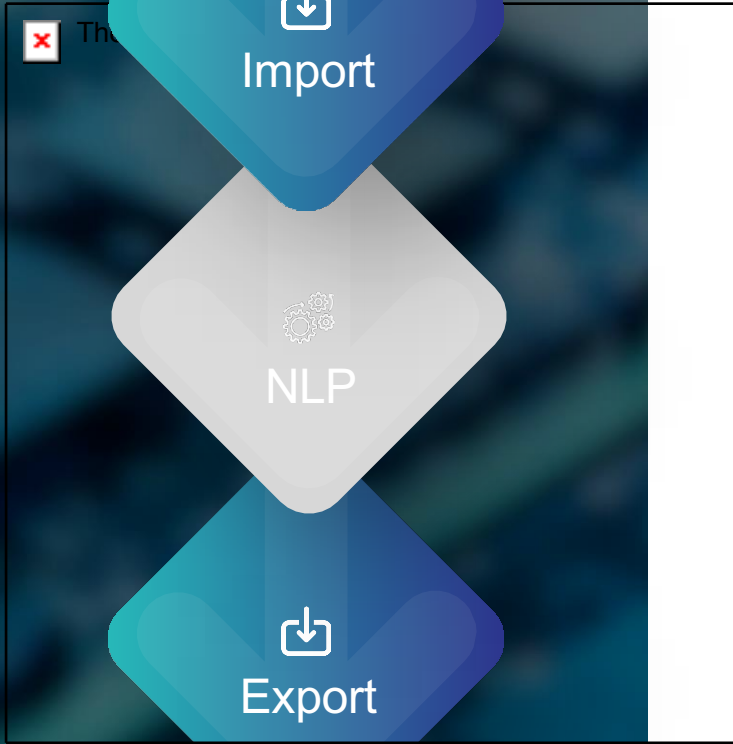
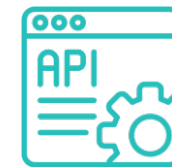


AI Medical Coding



Data exchange can happen using

- API
- HL7 Messaging
- SFTP server
- Robotic Process Automation (RPA)
 - A simple and secure technology that increases efficiency, reduces operational costs, and improves accuracy



AI Medical Coding:



Reconcile	Structure	Parse	Customize
<p>Discordant data</p> <p>Duplicate MRN for the same patient</p>	<p>Arrange all information into buckets like demographic details, cc, HPI, AP, procedures</p>	<p>E&M Codes</p> <p>CPT codes</p> <ul style="list-style-type: none"> - Modifiers - Units - ICD Mapping <p>ICD codes</p> <ul style="list-style-type: none"> - Medical - Necessity - Excludes 1 - Duplicate ICD 	<p>Examples</p> <p>After hours billing Bundled Payment</p>

Computer Assisted Coding (CAC) vs Autonomous Coding?

Computer Assisted Coding (CAC)	Autonomous Medical Coding
Template driven	Natural language
Human intervention required	No human intervention required
Variability across providers	Standardized across providers
Usually simple limited to E&M	Sophisticated incorporating multiple layers of data to build a clean claim
No CDI	CDI included



Benefits of Autonomous Medical Coding

Return on Investment



Cost

No Setup Fee. Manual coding cost reduction >50%



Analysis

Dashboard to analyze performance across providers, sites and over time



Speed

Time to file a claim shortened to 24 hours



Audit

Easily accessible and HIPPA Compliant



Accuracy

Translates to quicker billing and lower costs

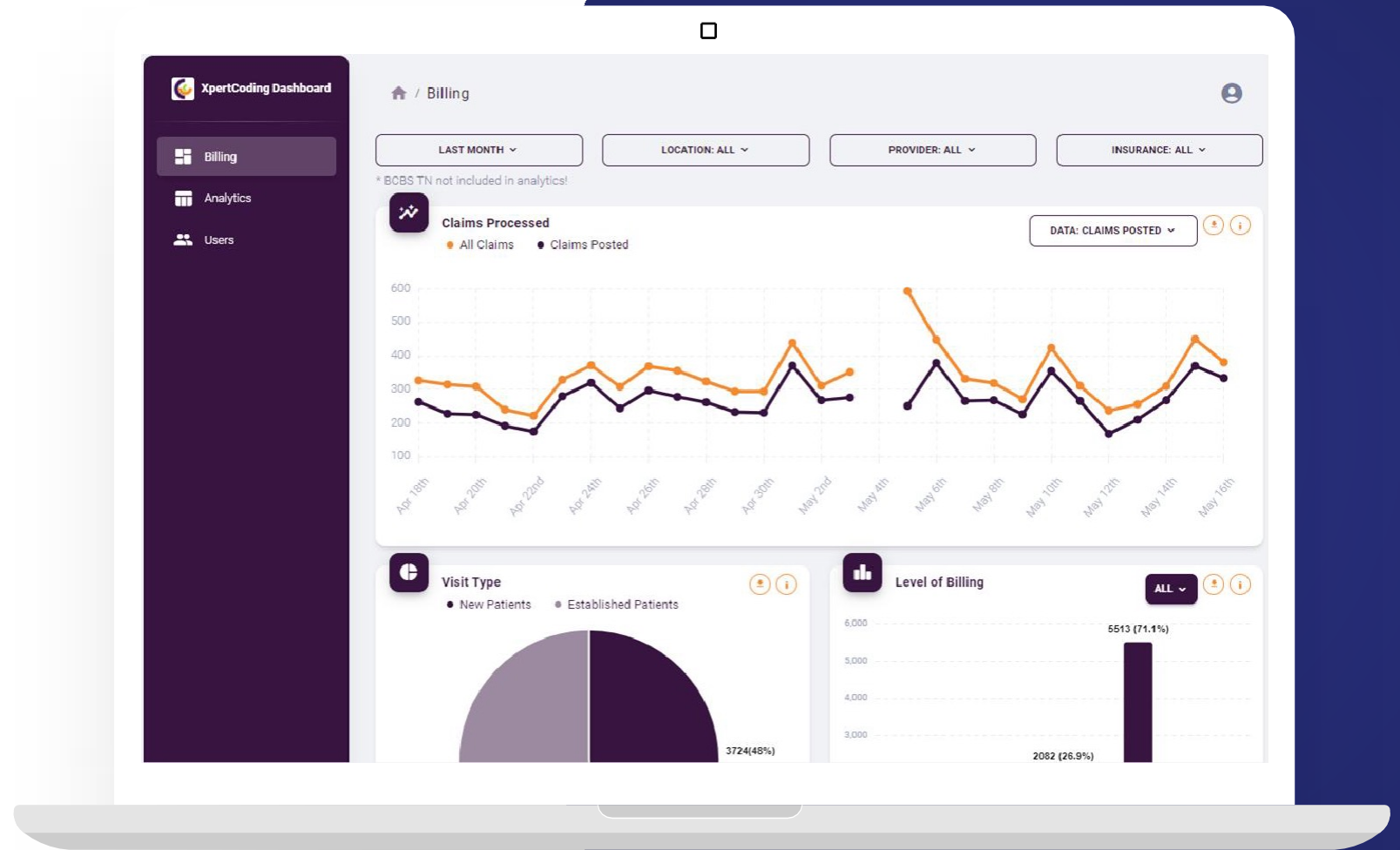


Scale

Increase coding capacity you can depend on to match demand

Audit Platform

- ✓ Trend and compare claim volume, visit type and level of billing across providers and clinics



Audit Platform

- ✓ Trend and compare claim volume, visit type and level of billing across providers and clinics
- ✓ Compare the performance of providers, payers, and clinics for
 - Level of Billing
 - Documentation
 - Under & Over utilization of services



Autonomous Medical Coding

Potential Risks and Mitigation

Pitfalls with AI medical coding

Biases in Data Algorithms



Look for a solution that has implemented across multiple states and multiple clients

Lack of Transparency



A solution that can display the logic back to you

Upfront Cost/Effort



Minimize setup fee, IT and coding effort

Business Continuity



Is the platform setup for disaster recovery. ISO 22301

Pitfalls with AI medical coding

Security Risk

**Workforce
Training**



**Access
Management**



**Business
Continuity**



**Threat And
Vulnerability
Management**



**Infrastructure
Security**



**Data Privacy And
Management**



**Incident
Management**



**Application
Security**



Quality Control

**1
Frontend QC**



**2
Backend QC**



**3
Systematic Audit**



**4
Random Audit**



A person wearing a white lab coat and a surgical mask is pointing their right index finger at a large, glowing digital screen. The screen displays various data visualizations, including a bar chart and a line graph. The background is dark with blue light effects, suggesting a high-tech or medical environment.

**How do you select an
Autonomous medical
coding platform for
your practice?**

Comparison

	Best	Worst
Timeline to Implement	Few weeks	Few months
IT Support from Client	No	Yes
Validation Method	Risk Free Pilot	Exported charts
Training Requirement	None	Needs exported charts
Autonomous Submission	>90%	<90%
Validation	Multiple states, pediatric and adult	Limited Implementations
Transparency	Displays logic	Does not display logic
Security	ISO 27001, SOC-2 Certified	No Certifications
Quality Control	Multi-level QC	No Quality Control
Business Continuity	ISO 22301	No Certification

Summary

The current state of medical coding is **outdated, costly, and inefficient**

- AI enabled medical coding **uses machine learning algorithms to automate the process** of medical coding
- Autonomous medical coding is **fast, accurate, and efficient**, compared with manual coding
- While there are certain pitfalls with using technology these can be mitigated with previous **validation, certifications, and risk free pilot implementation**
- **Not all AI medical coding platforms are built the same!** When choosing an autonomous medical coding platform, compare the time to implement, validation, if it requires IT support, training requirement, and autonomous submission

QUESTIONS & ANSWERS



Session Evaluation

- Your feedback is valuable, take a moment to complete the survey for this session.
- To claim CME, you must complete a separate survey available after the convention.

* How likely are you to recommend this **content** to a colleague?

Not likely at all Neutral Extremely likely

0 1 2 3 4 5 6 7 8 9 10

What did you find most valuable about this **content**?

What would have made this **content** better?

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