Intelligent Automation:

Manual to Meaningful

RWJBarnabas HEALTH

Today's Presenters



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RWJBarnabas HEALTH

RWJBH's Mission & Vision

RWJBarnabas HEALTH



Our Mission

We are an academic health system, partnering with our communities to build and sustain a healthier New Jersey.



Our Vision

RWJBarnabas Health will be the premier health care destination providing patient-centered, high-quality academic medicine in a compassionate and equitable manner, while delivering a best-in-class work experience to every member of the team.

Mantra

One system, one family



Our Values

Accountability	An acceptance of responsibility for honest and ethical conduct towards others. *Synonyms: responsibility, liability*
Compassion	Sympathetic concern for the sufferings or misfortunes of others. *Synonym: understanding*
Curiosity	A strong desire to know or learn something. *Synonyms: interest, inquisitiveness*
Empathy	The ability to understand and share the feelings of another. *Synonyms: sensitivity towards, understanding of*
Excellence	The quality of being outstanding or extremely good. *Synonyms: greatness, superiority*
Kindness	The quality of being friendly, generous and considerate. *Synonym: selflessness*
Respect	A feeling of deep admiration for someone or something elicited by their abilities, qualities or achievements. *Synonyms: esteem, regard*
Teamwork	The combined action of a group of people, especially when effective and efficient. *Synonyms: partnership, synergy*

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Mission: We are an academic health system, partnering with our communities to build and sustain a healthier New Jersey.



The largest, most comprehensive academic health care system in New Jersey covering eight counties with five million people.

- **12** acute-care hospitals
- New Jersey's only freestanding cancer hospital
- Children's Specialized Hospital
  (including inpatient, outpatient and long-term care facilities)
- 1 freestanding behavioral health center
- 2 adult trauma centers
- Over 700 patient care locations

45,000 Employees

9,000 Physicians

1,600 Medical Residents and Fellows

RWJBarnabas Health is an essential element of New Jersey's safety net.
We are, by two times, the state's largest provider of medical care to those who can't afford to pay and to beneficiaries of the Medicaid program.

Nationally renowned for clinical excellence

An affiliation with Rutgers University aligning education, research and clinical activities

- New Jersey's only NCI-designated Comprehensive Cancer Center together with Rutgers Cancer Institute
- National leader in cardiac, transplant, pediatric, cancer, emergency, and maternity care
- The first in New Jersey to Achieve Joint Commission Disease-Specific Certification for Cardiac Care
- Delivering the most babies in the state across nine maternity hospitals
- Home to the state's only lung transplant program, certified burn center, and free-standing cancer hospital
- One of the nation's top 15 heart transplant and top 10 kidney transplant programs
- Largest and most comprehensive pediatric health care provider in New Jersey
- The state's largest unified EMS provider
- Top 1% of Epic customers worldwide

Making a social impact

1.7 million pounds of food distributed

164,000+ Uber rides provided

931,400 diapers distributed

2,713 SNAP applications

From 2020 through 2025, RWJBarnabas Health will have invested more than **$4.7 billion** in **new equipment, technology and facilities**, with a sizeable portion of that in underserved communities, creating thousands of jobs alongthe way.

RWJBarnabas Health is an **economic engine** contributing more than **$7 billion** annually to New Jersey's economy.

RWJBarnabas Health is the official health care provider of

Where Does Your Team's Time Go?



40%

Prior Auth Requests

of denials are auth-related



100s

Fax Transcription

of faxes manually entered daily



15%

CPT Mismatches

claim rejection rate industry avg



60%

Staff Capacity

time spent on rework & manual tasks

These are not edge cases — they are the daily reality of every Patient Access team.

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Four Automations. One Goal: Meaningful Work.

01

Fax Transcription Automation

AI-powered transcription converts inbound faxes into structured Epic data, eliminating manual entry at the source.

02

Prior Authorization Automation

Real-time authorization determination, status checks, and clinical packaging

03

Digital Patient Experience Automation

Estimate auto creation & auto finalization, touchless arrival, auto wristband printing

04

CPT Mismatch Automation

Intelligent workque automation to catch CPT mismatches before claims leave the building.

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Fax Transcription Automation

1

Fax Arrives

Inbound via eFax

→

2

AI Reads

NLP extraction

→

3

Matches Patient

Epic MPI lookup

→

4

Populates Fields

Orders, demographics

→

5

Staff Reviews

Exceptions only

~3 min	~85%	< 5%
Average fax processing time (was 12–15 min)	Auto-population accuracy rate	Faxes requiring manual intervention

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Prior Authorization Automation

⏱ BEFORE

- ✕ Manual payer portal logins per request
- ✕ Phone hold times averaging 20–45m
- ✕ Manual Auth status tracking
- ✕ Retro-auth identified at billing, not access

✓ AFTER — AUTOMATED

- ✓ Real-time auth determination to guide scheduling
- ✓ Auto-routing based on payer + service type rules
- ✓ Worklist auto-prioritizes by date of service urgency
- ✓ Automated Auth Status visibility from request-to-decision

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Digital Patient Experience Automation

Access Before Access – The Visit Starts At The Digital Front Door

Estimate Auto-Creation & Finalization

- Auto-generated estimates triggered at scheduling
- Payer-specific adjudication logic applied in real time
- Finalized & delivered to patient before date of service
- Drives pre-service collection at point of scheduling

↑ Pre-Service Collections

Touchless Arrival via MyChart

- eCheck-in opens 3 days before appointment
- Demographics, insurance & consents completed at home
- Patient status visible to staff in Epic in real time
- Eliminates paperwork, reduces lobby wait time

↓ Lobby Wait Time

Auto Wristband Printing at Point of Service

- Wristband triggers automatically upon patient arrival
- Pulls verified data from completed eCheck-in
- Zero manual reprints from data entry errors
- Seamless handoff from access to clinical teams

Zero-Touch Wristbands

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CPT Mismatch Automation

The Mismatch Problem

CPT 93452 vs 93458
⚠ Cath lab vs PCI

CPT 70551 vs 70553
⚠ Brain MRI without vs with/without

CPT 74150 vs 74177
⚠ Abdomen vs Abdomen/pelvis

How Workque Automation Fixes It

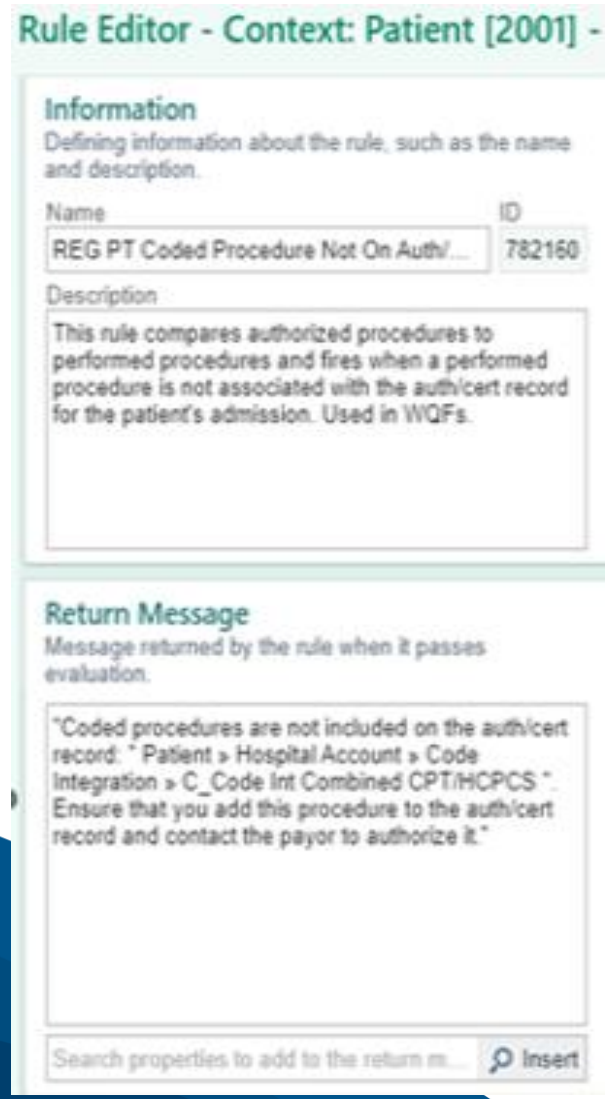
Real-Time Edit Check
Flags pre vs post service CPT mismatches — before claim submission

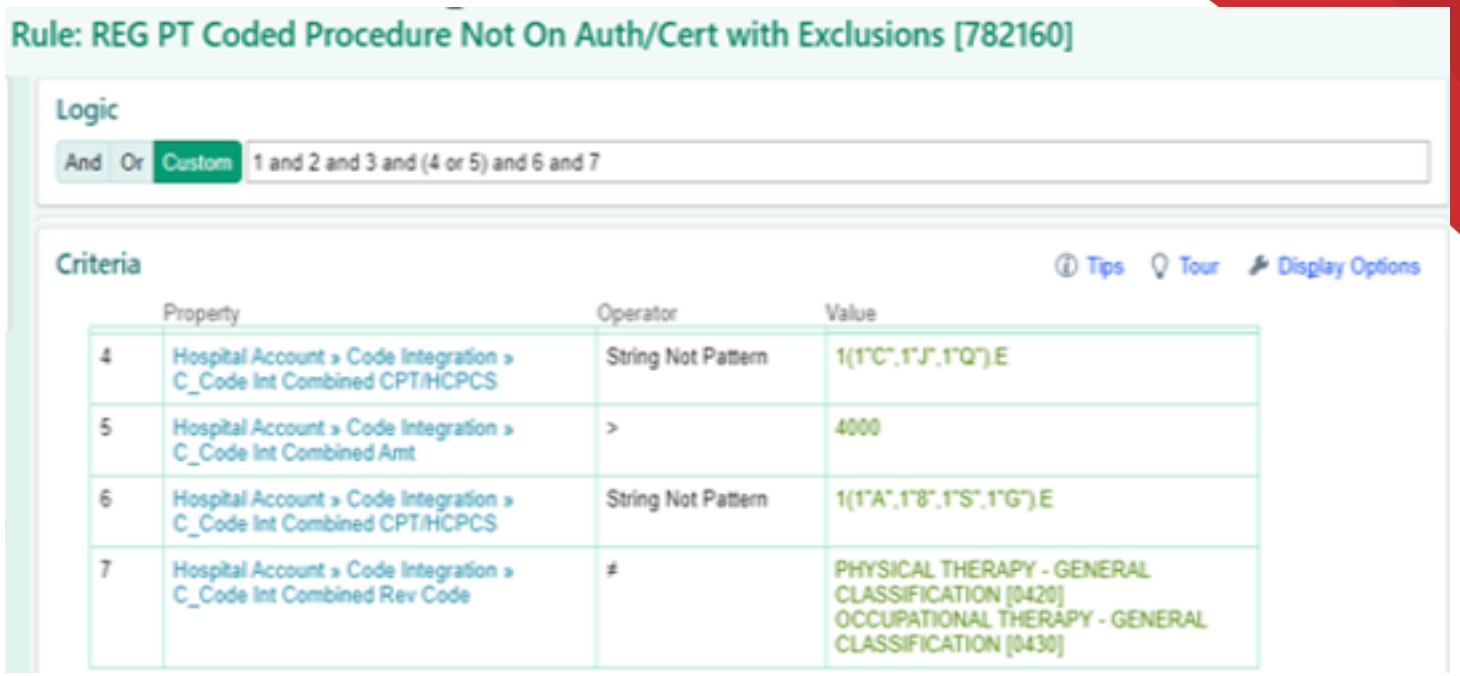
Automated Mismatch Detection
Eliminates the need for manual review –focus is on timely reauthorization

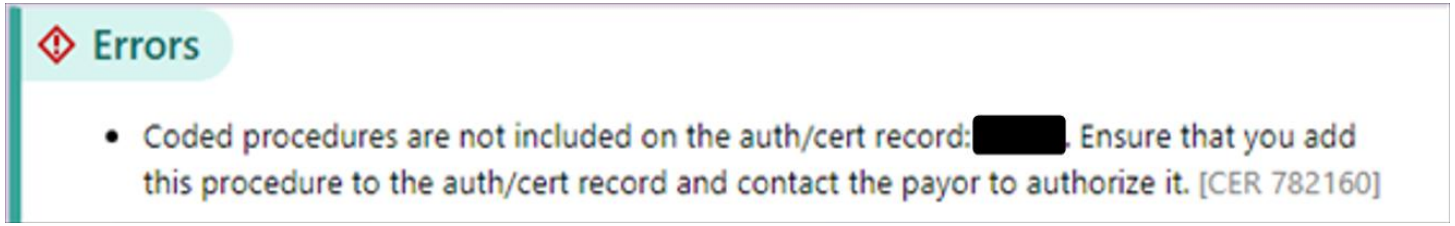
Trend Reporting
Historical Workque reports and Slicer dicer trending for feedback loop

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Build Mix and Match - Rule Translation







What We've Seen So Far

↓ 20%
No Auth-Related Denials

↓ 75%
Manual Fax Entry Time

↑ 22%
Front-End Collection

↑ 4.2 hrs
Staff Capacity Recaptured/Day

< 48 hrs
Auth Determination Turnaround

<4m 08s
Average registration time

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How We Did It

A Framework You Can Replicate

DISCOVER
Weeks 1–3

- Map current-state workflows
- Quantify manual time & error rates
- Identify Epic touchpoints
- Engage frontline staff early

DESIGN
Weeks 4–7

- Define automation logic & rules
- Staff training & job aids in Epic
- Create exception handling paths
- UAT with access team leads

DEPLOY
Weeks 8–10

- Phased rollout by site or service
- Real-time monitoring & feedback loop
- Configure Epic build & integrations
- Go-live command center staffed

SCALE
Month 4+

- Expand to additional payers
- Refine AI models with outcomes data
- Add new automation use cases
- Share learnings across network

Key lesson: Don't boil the ocean. Start with one automation, prove value, then expand.

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Lessoned Learned

Four things every team should know before they build



Know Your Metrics

Understand the definition of touchless and what impacts that calculation in Epic.



Know Your Properties

The surgical log CPT does not always match the coded CPT. Audit before building to understand the variance.



Know Your Dev Team

Align expectations early -- ensure all stakeholders understand the value and the limitations of the process.



Know Your Denials

Denial patterns are your roadmap — the more granular your denial data, the smarter your automation logic can be.

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The Innovation Horizon

AI-Driven Scheduling Optimization

Predictive no-show modeling and dynamic slot management embedded in Epic scheduling.

Referral Intelligence

Automated referral routing-based on search terms and provider network status

Proactive Benefits Verification

Real-time eligibility optimization + payer platform coverage finder, ID card exchange

Patient Financial Estimation 2.0

Pre-Service payment plan automation and PB estimate auto generation/finalization

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