



Bridging the Divide – Revenue Cycle Analytics and Automation

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Tensions between Payors and Providers are at **all time highs**. Each party building infrastructure to accommodate complex rules and regulations.

For Providers today, the challenge is threefold:

1. Getting actionable data is **hard**
2. Operationalizing findings is **harder**
3. Continuous improvement cycles is the **hardest**



Turning Data into Results

Every hospital has dashboards — but **few have results tied directly to them.**

The difference isn't tools or technology — it's **how teams align, manage, and execute.**

Today we'll focus on four interconnected pillars of performance:

1. **Build alignment** across Revenue Cycle Teams
2. **Transform dashboards** into actionable improvement projects
3. **Continuous execution** based on operational outcomes
4. **Foster a culture where data drives** measurable excellence



Turning Dashboards into Action Plans

Dashboards designed for decisions, not decoration.

- Pretty does NOT mean better
- Combine financial KPI with operational metrics
- Assign ownership and review cadence of each metric
- Dashboards are only powerful when they connect data to workflow. When every metric has an owner and an action plan, improvement becomes continuous
- People -> Process -> Technology needs to be replaced with Technology -> Process -> People



[illegible]



Organization

All

Facility

All

Department

All

Room

All

Next 30 Days

Next 14 Days

Next 7 Days

Tomorrow

Today

Yesterday

Last 7 Days

Last 14 Days

Last 30 Days

Tuesday, March 31, 2026

Last Refreshed



1,370

Total Appointments



61.82%

Active Coverage



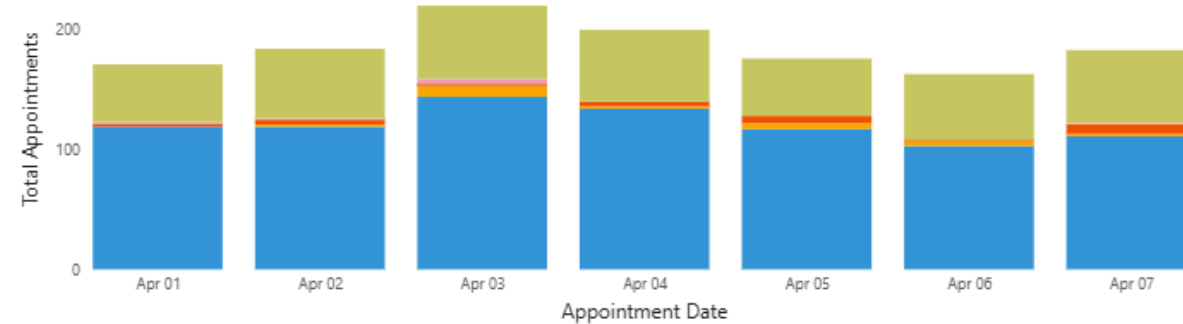
4.89%

Self Pay Appointments

Appointments by Coverage Status

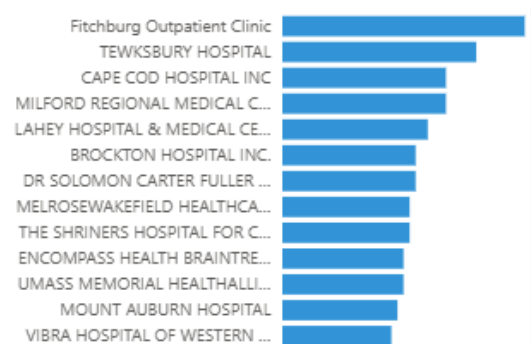
Upcoming and previously scheduled appointments

Coverage Status ● Active ● Error ● Inactive ● Non-Covered ● Other



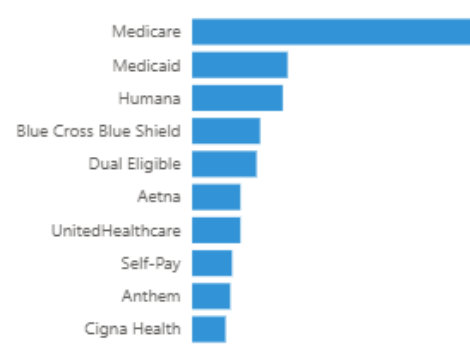
Scheduled Locations

Appointments by department



Payers

"Drill down" to view more granular data



Appointment Detail

All scheduled appointments

Hide Patient Name

Show Patient Name

Appointment Time	Appointment End	Resource	Appointment Status
4/1/2026 12:08:22 AM	4/1/2026 12:23:22 AM	Miyoko154 Paucek755	Confirmed
4/1/2026 12:14:31 AM	4/1/2026 2:16:31 AM	Reggie481 Schiller186	Confirmed
4/1/2026 12:18:14 AM	4/1/2026 4:23:32 AM	Gail741 Romaguera67	Confirmed
4/1/2026 12:26:30 AM	4/1/2026 1:21:51 AM	Saundra460 Kuphal363	Confirmed
4/1/2026 12:28:43 AM	4/1/2026 2:51:43 AM	Chanell45 Robel940	Confirmed
4/1/2026 12:41:38 AM	4/1/2026 1:07:27 AM	Denis399 Boyer713	Confirmed
4/1/2026 12:53:05 AM	4/1/2026 1:29:59 AM	Dan465 Swift555	Confirmed
4/1/2026 12:56:56 AM	4/1/2026 6:32:14 AM	Latoyia537 Lindgren255	Confirmed
4/1/2026 1:14:12 AM	4/1/2026 1:29:12 AM	Carlton317 Koch169	Confirmed
4/1/2026 1:14:14 AM	4/1/2026 1:29:14 AM	Hunter736 Marquardt819	Confirmed
4/1/2026 1:22:45 AM	4/1/2026 5:18:45 AM	Brittney657 Schmitt836	Confirmed
4/1/2026 1:24:42 AM	4/1/2026 1:39:42 AM	Eufemia350 Casper496	Confirmed
4/1/2026 1:27:42 AM	4/1/2026 4:19:42 AM	Almeda560 Okuneva707	Confirmed
4/1/2026 1:29:04 AM	4/1/2026 1:44:04 AM	Santina680 Dicki44	Confirmed
4/1/2026 1:29:11 AM	4/1/2026 4:18:52 AM	Sharron285 Batz141	Confirmed
4/1/2026 1:46:08 AM	4/1/2026 2:03:46 AM	Nickolas58 Schumm995	Confirmed
4/1/2026 2:01:06 AM	4/1/2026 2:49:51 AM	Duane703 Koelpin146	Confirmed
4/1/2026 2:02:00 AM	4/1/2026 4:44:00 AM	Harlan808 Langosh790	Confirmed
4/1/2026 2:06:48 AM	4/1/2026 2:21:48 AM	Jolie499 Parisian75	Confirmed
4/1/2026 2:16:59 AM	4/1/2026 2:33:21 AM	Latoyia537 Lindgren255	Confirmed
4/1/2026 2:43:43 AM	4/1/2026 3:49:35 AM	Erick204 Mayer370	Confirmed
4/1/2026 2:51:43 AM	4/1/2026 3:06:43 AM	Chanell45 Robel940	Confirmed
4/1/2026 3:06:36 AM	4/1/2026 4:06:34 AM	Anderson154 Lemke654	Confirmed
4/1/2026 3:09:07 AM	4/1/2026 5:19:07 AM	Clayton230 Jast432	Confirmed
4/1/2026 3:16:35 AM	4/1/2026 3:48:51 AM	Mathilde204 Wintheiser220	Confirmed
4/1/2026 3:17:26 AM	4/1/2026 3:50:34 AM	Venus149 Blick895	Confirmed
4/1/2026 3:22:22 AM	4/1/2026 6:11:22 AM	Johna806 Klein929	Confirmed
4/1/2026 3:24:11 AM	4/1/2026 4:08:11 AM	Noelle559 Padberg411	Confirmed
4/1/2026 3:43:06 AM	4/1/2026 6:48:06 AM	Bea654 Daniel959	Confirmed
4/1/2026 3:46:16 AM	4/1/2026 4:01:16 AM	Gabriel934 Reilly981	Confirmed
4/1/2026 3:48:35 AM	4/1/2026 4:48:35 AM	Majorie11 Bergstrom287	Confirmed
4/1/2026 4:03:20 AM	4/1/2026 4:34:56 AM	Maragaret140 Erdman779	Confirmed
4/1/2026 4:34:43 AM	4/4/2026 8:01:43 AM	Nan75 Collins926	Confirmed
4/1/2026 4:36:44 AM	4/1/2026 6:41:44 AM	Reggie481 Schiller186	Confirmed
4/1/2026 4:41:35 AM	4/1/2026 7:30:35 AM	Carmelina668 Goyette777	Confirmed
4/1/2026 5:08:22 AM	4/1/2026 9:10:11 AM	Chanelle850 Schuster709	Confirmed



Sample Patient Access KPI's

KPI Name	Definition	Why	Owner
Insurance Verification Rate	% of scheduled patients with verified insurance before service	Ensures eligibility and reduces denials for coverage issues	Patient Access Director
Pre-Registration Completion Rate	% of patients preregistered prior to service	Improves throughput and reduces registration errors	Patient Access Supervisor
Point-of-Service Collection Rate	POS payments ÷ Total self-pay cash collected	Improves cash flow and reduces bad debt risk	Financial Clearance Manager
Authorization Denial Rate	% of denials due to missing/invalid authorization	Highlights gaps in prior auth workflows	Authorization Coordinator
Registration Error Rate	% of accounts with demographic/insurance errors	Directly impacts billing accuracy and claim rejections	Registration Lead



Missing Charges

Missing Charges data from:
Oct 14, 2025 - Mar 9, 2026

Total Missing Charges

26,107

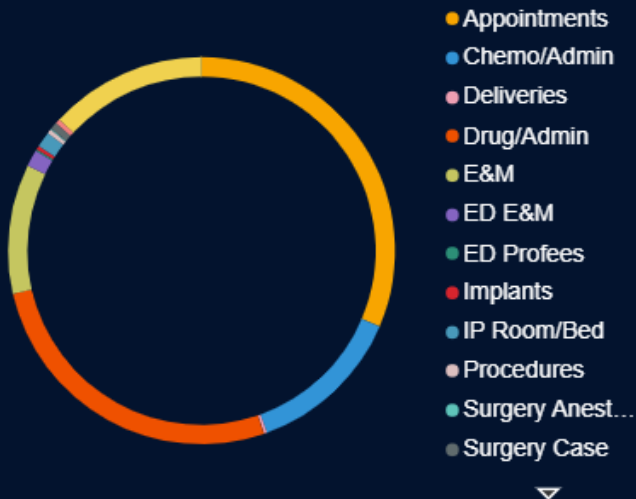
Total Expected Price

\$14.12M

Total Expected RVU

19,752.43

Workflow



Appointment Type

Top 10



Billing Area Weekly Trending

Last 5 Weeks

Billing Area	Feb 01	Feb 08	Feb 15	Feb 22	Mar 01	Mar 08	Total
Miscellaneous	59	4,924	6,837	6,956	7,238	54	26,068

Physician Analysis

Physician Display → Appointment Type

Physician	Missing Charges
Berg, Zoid	249
Briggs, Kim	329
Carter, John	244
Casey, Ben	305
Cox, Perry	315
Crane, Frasier	266
Dorian, John	277
Grey, Meredith	325
Hibbert, Julius	290

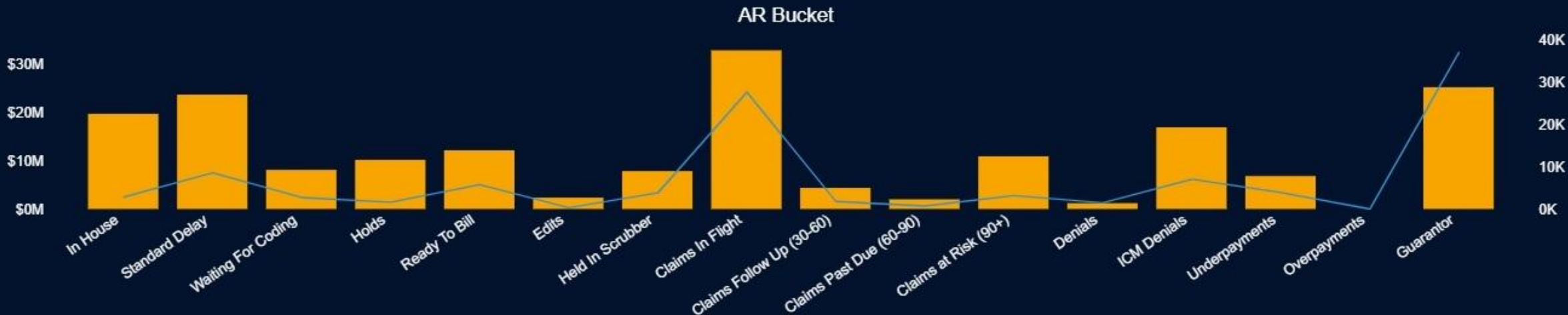


Sample Revenue Integrity KPI's

KPI Name	Definition	Why	Owner
Missing Charge Capture Rate	Missing Charges Added ÷ Daily Charges	Measures quantity and value of Revenue Integrity teams case review	Director of Revenue Integrity
Charge Lag Rate	% of Charges posted 3+ days post service date	Indicates how timely physicians are documenting and signing notes	VP of Revenue Cycle
Late Charge Rate	Late charges ÷ Total charges	Improves charge capture accuracy and compliance	Revenue Integrity Analyst
Physician Time in Clinic	Physician Patient Schedule Time ÷ Total Physician Time	Indicator of how much time physicians are spending with patients	CMIO



AR Overview

Data as of:
Tuesday, April 7, 2026Total AR Dollars
\$183.97MTotal Balances
130,932Total Accounts
117,041Total Disrupted AR Dollars
\$65.80MTotal Disrupted Balances
26,503Total AR Dollars over 90
\$53.60MTotal Balances over 90
49,766AR Days^①
46.79

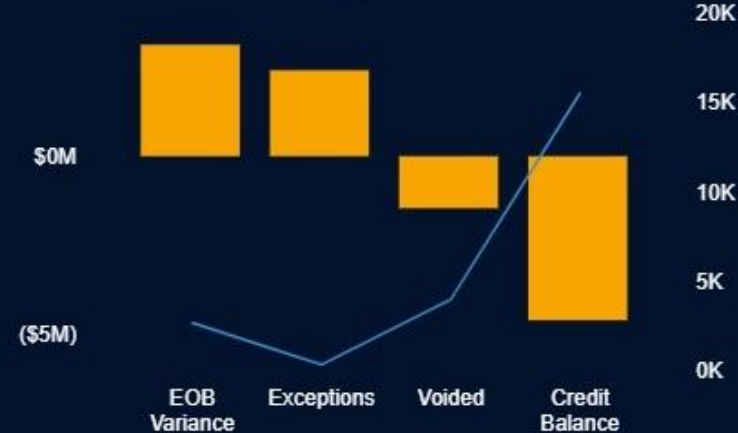
Billing Providers



Top Disrupted Buckets

AR Bucket	Total Balances	Current Amount Due
ICM Denials	7,062	\$16,927,187.30
Claims at Risk (90+)	3,196	\$10,921,130.87
Holds	1,612	\$10,174,994.05
Held In Scrubber	3,812	\$7,871,206.48
Underpayments	3,889	\$6,835,835.43

Anomaly Buckets



Disrupted Buckets: Holds

 Data as of:
Thursday, October 2, 2025

Total AR Dollars	Total Balances	Total Accounts	% of Total Balances	% of Total AR	Average AR Age	Balances In	Balances Out
\$31.74M	951	951	0.32 %	3.56 %	21.79	947	892

Holds	Hold Reason						
Edits	Deceased	Employee Discount	Waiting for Discharge	Billing period is not closed.	Canceled Cleanup Hold	Other	Waiting for cr...
Denials	\$3.45M	\$2.14M	\$1.90M	\$1.58M	\$1.45M	\$1.31M	\$1.27M
Voided	Secondary Transaction Review	Waiting for hold days.	Holding for Billing Review	Waiting for coding complete.	Standard Delay	Precollection Agency ...	Charit...
Credit Balance	\$2.55M	\$1.98M	\$1.85M	\$1.58M	\$1.38M	\$1.11M	\$0.81M
		Suppress from all Statements	Professional Coding	Early Out Return Review	Waiting for Coding	Billing Hold	
		\$1.95M	\$1.71M	\$1.46M	\$1.32M	\$0.93M	\$0.81M

Balance Details

Billing Provider	Billing Area	Location	Account Identifier Name	Account Identifier	Current Amount Due	AR Bucket	AR Age	AR Age Bucket	Bucket Age	Days Since Last Action	Receivable ID	Receivable Paym
SparkChange South	SparkChange South	Ancillary	FIN	OLBPYPCHI	\$2,395,420.00	Holds	-29	I. Less than zero	67		1152415278	\$
SparkChange Midwest	SparkChange Midwest	OP in a Bed	FIN	JVURSFUBR	\$634,240.00	Holds	57	b. 31-60	35		1718520117	\$
SparkChange South	SparkChange South	Miscellaneous	FIN	RNCOJQKBE	\$472,930.00	Holds	-1	I. Less than zero	35		2149161014	\$
SparkChange Midwest	SparkChange Midwest	Chemotherapy	FIN	EEBPOZYRV	\$446,790.00	Holds	-1	I. Less than zero	62		1425241721	\$
SparkChange West	SparkChange West	Observation	FIN	IDVOQYQGB	\$403,400.00	Holds	2	a. 0-30	91		1416241661	\$
SparkChange West	SparkChange West	Chemotherapy	FIN	DT1AYDKRN	\$396,380.00	Holds	-29	I. Less than zero	38		241610173	\$



Disrupted Buckets: Edits

Data as of:
Thursday, October 2, 2025Total AR Dollars
\$2.12MTotal Balances
2,700Total Accounts
2,700% of Total Balances
0.90 %% of Total AR
0.24 %Average AR Age
312.27Balances In
2,680Balances Out
2,646

Edit Reason

Holder	Diagnosis Code is missing on claim.	Charge is missing Diagnosis Pointer.	Rendering Physician NPI is Missing	Alt...
Edits				
Denials			\$415.53K	\$2... Pri...
Voided			Rendering Physician Name is Missing	\$2... M...
Credit Balance	\$843.51K	\$594.09K	\$404.38K	\$1...

Balance Details

Billing Provider	Billing Area	Location	Account Identifier Name	Account Identifier	Current Amount Due	AR Bucket	AR Age	AR Age Bucket	Bucket Age	Days Since Last Action	Receivable ID	Receivable Payme
SparkChange North	SparkChange North	Miscellaneous	FIN	SPKASPDH	\$62,930.00	Edits	116	d. 91-120	33		18153177	\$0
SparkChange Midwest	SparkChange Midwest	Interv Card	FIN	VPCNVVOCU	\$62,930.00	Edits	777	h. 365+	377		3212114220	\$0
SparkChange East	SparkChange East	Physical Therapy	FIN	GBSVRAQHJ	\$41,920.00	Edits	767	h. 365+	334		8211701679	\$0
SparkChange North	SparkChange North	Inpatient Psych	FIN	FJZXPJEDV	\$40,770.00	Edits	75	e. 61-90	286		5231594321	\$0
SparkChange Midwest	SparkChange Midwest	General Surg	FIN	YVQAAQKXS	\$40,770.00	Edits	651	h. 365+	56		16101823	\$0



Sample Claims/Billing KPI's

KPI Name	Definition	Why	Owner
Days in DNFB	$\$ \text{ in DNFB} \div \text{Average Daily Gross Revenue}$	Measures coding/billing timeliness	VP of Revenue Cycle
Disrupted Balances Rate	% of AR pending Provider vs payer	Measures efficiency and effectiveness of AR in progress	VP of Revenue Cycle
Clean Claim Rate (CCR)	% of claims accepted by payer on first submission	Core indicator of end-to-end revenue cycle quality	Patient Accounting Director
First Pass Resolution Rate (FPRR)	% of claims paid on first submission	Measures payer and internal efficiency	Billing Director
A/R > 90 Days	$\text{A/R aged} > 90 \text{ days} \div \text{Total A/R}$	Indicates collection timeliness	Financial Analyst



Payer Overview

GCR (30 Days)

39.61%

% Change Last 7 Days Last 90 Days
 9.68% 42.12% 38.40%

Denial Rate (30 Days)

19.91%

% Change Last 7 Days Last 90 Days
 -14.13% 16.67% 19.41%

Days to Adjudicate (30 Days)

16

% Change 7 Day Avg 90 Day Avg
 -2.67% 21 22

Payer Past Performance

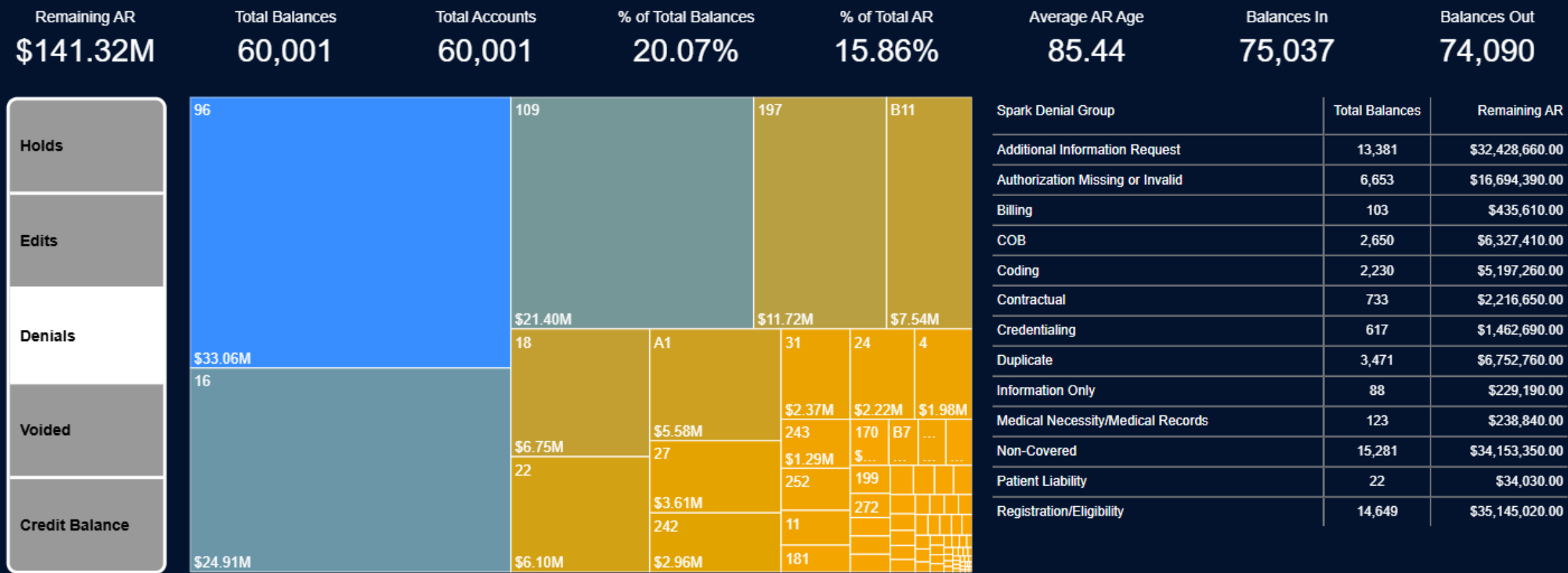
Past 90 Days

Payer	Total Charges	Total Payments	Total Adjustments	Patient Responsibility	Total Remits	Gross Collection Rate	Days to Adjudicate	PR % of Allowed	Denial Rate
Major Carrier A	\$9,995,708.18	\$4,726,748.82	\$4,659,775.63	\$609,183.73	5,267	47.29%	29.39	11.42%	22.33%
Major Carrier C	\$10,070,469.96	\$4,087,233.37	\$5,696,628.75	\$286,607.84	4,327	40.59%	15.11	6.55%	22.15%
Medicaid	\$10,630,985.09	\$3,514,611.93	\$6,702,051.91	\$414,321.25	3,758	33.06%	15.06	10.55%	21.35%
Major Carrier B	\$8,510,885.51	\$3,377,476.96	\$4,643,549.22	\$489,859.33	3,767	39.68%	19.15	12.67%	25.25%
Major Carrier D	\$2,997,488.79	\$1,234,426.02	\$1,577,235.74	\$185,827.03	1,209	41.18%	15.94	13.08%	2.50%
Regional Carrier 1	\$2,406,404.21	\$682,089.90	\$1,622,367.61	\$101,946.70	1,308	28.34%	17.26	13.00%	4.31%
Major Carrier E	\$2,039,055.05	\$554,644.22	\$1,413,864.65	\$70,546.18	522	27.20%	12.86	11.28%	8.81%
Regional Carrier 3	\$1,880,441.56	\$473,487.43	\$1,342,469.06	\$64,485.07	643	25.18%	40.96	11.99%	10.69%
Regional Carrier 4	\$159,861.75	\$47,521.96	\$109,498.90	\$2,840.89	18	29.73%		5.64%	9.52%
Total	\$48,691,300.10	\$18,698,240.61	\$27,767,441.47	\$2,225,618.02	20,819	38.40%	21.53	10.64%	19.42%



Disrupted Buckets: Denials

Data as of:
Thursday, October 2, 2025



Balance Details

Billing Provider	Billing Area	Location	Account Identifier Name	Account Identifier	Receivable - Remaining AR	AR Bucket	AR Age	AR Age Bucket	Bucket Age	Days Since Last Action	Receivable ID	Receivable - Payments	Receivable
SparkChange East	Ambulance	Ambulance	FIN	CXIFIBBZP	\$420.00	Denials	-1	i. Less than zero	202		3858112515	(\$270.00)	
SparkChange East	Ambulance	Ambulance	FIN	DMDOPHWRV	\$420.00	Denials	-1	i. Less than zero	157		4157221721	(\$120.00)	
SparkChange East	Ambulance	Ambulance	FIN	EBWUWTYDT	\$6,120.00	Denials	-29	i. Less than zero	158		221924319	\$0.00	
SparkChange East	Ambulance	Ambulance	FIN	EIXKTOTHG	\$200.00	Denials	-1	i. Less than zero	368		1019141976	(\$140.00)	



Sample Payer/Patient Accounting KPI's

KPI Name	Definition	Why	Owner
Cash Collections as % of Net Revenue	Total cash ÷ Net patient service revenue	Monitors overall collection performance	VP of Revenue Cycle
Denial Rate	% of total claims denied by payer	Primary indicator of revenue leakage	Denials Manager
Top 10 Denial Reasons	Ranked list of most frequent denial causes	Identifies systemic issues for root cause correction	Denial Analyst
Credit Balance %	Credit balances ÷ Total A/R	Highlights overpayments and posting accuracy	Cash Posting Supervisor
Underpayments %	Underpayments A/R ÷ Total A/R	Measures payer and internal efficiency	Billing Director



From Insight to Impact



High-performing hospitals use dashboards to drive conversations and continuous improvement.



Then & Now

■ May 7th, 2023

■ January 14th, 2025

AR



↓ 16%

Disrupted AR



↓ 27%

Denied AR



↓ 47%

Self Pay AR



↓ 38%

Average Balance Age



↓ 13%

AR over 90



↓ 27%



Revenue Cycle Maturity

MANUAL BY DEFAULT

Human-Led and Reactive

Manual processes dominate. Systems are fragmented, analytics are minimal, and decisions rely on gut feel and human intervention.

LEVEL 0-1

People do all the work with little data or automation.

STRUCTURED EFFICIENCY

Insight Without Execution

Dashboards surface issues and workflows are partially automated, but humans still carry the load.

LEVEL 2

Visibility improves but action remains manual.

INTELLIGENT AUTOMATION

AI Drives the Work

Automation handles defined tasks. Teams shift to managing exceptions and strategy. Task work turns into knowledge work.

LEVEL 3

AI and data guide execution at scale.

REINVENTED OPERATIONS

Touchless and Self-Optimizing

Workflows are touchless, insights are real-time, and your team focuses on what matters most – strategy, design, and partnerships.

LEVEL 4

AI and automation handle the execution so your people can lead.

DO IT
YOURSELF

LET THE SYSTEM
HANDLE IT



Thank You

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sparkchange.health

Reinvent your revenue cycle by
transforming data into direction.

www.sparkchange.health

