Universal Data Intelligence Report

Generated: 10/25/2026, 10:09:38 AM
Source: Clinical_150_Rows.csv · 150 rows

Detected Industry

Field	Value
Industry	Healthcare
Confidence	High
Company Size	SMB
Reasoning	The dataset contains explicit electronic health record fields including Patient_ID, Encounter_ID, Doctor_ID, clinical vitals (Height_cm, Weight_kg, BMI, Systolic_BP_mmHg, Diastolic_BP_mmHg, Temperature_Value), and lab panel records (Lab_Test, Lab_Result).

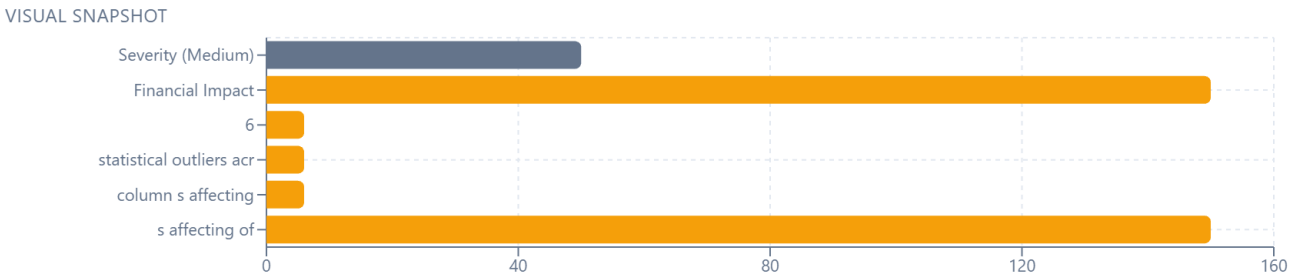
Executive Summary

Analysis of 150 clinical encounter records identified systematic data integrity and input anomalies impacting 4.0% of encounters (6 of 150 rows). Extreme outliers including impossible physical measurements (Height_cm=0, Weight_kg=-75, Temperature_Value=365) indicate absent front-end EHR data validation rules. These clinical documentation defects generate direct exposure to claim denials, billing rework costs, and compliance risks under payer audit standards.

Top Money Leaks

#1 · Numeric outliers & anomaly screening	Medium
Signal	Impossible physiological entries and extreme numeric outliers across Height_cm, Weight_kg, BMI, Diastolic_BP_mmHg, Temperature_Value, and Age_Years.
Evidence	6 rows contain statistical outliers across 6 numeric column(s) affecting 6 of 150 rows (4.0%). Outliers include Age_Years: 1 values > 3 sd (mean 50.92, sd 9.44); Height_cm: 1 values > 3 sd (mean 166.98, sd 14.66); Weight_kg: 1 values > 3 sd (mean 69.53, sd 13.97) and 1 negative value; BMI: 1 values > 3 sd (mean 25.18, sd 3.80); Diastolic_BP_mmHg: 1 values > 3 sd (mean 77.62, sd 9.45); Temperature_Value: 1 values > 3 sd (mean 38.94, sd 26.71). Specific examples: row 41 {Age_Years=55, Height_cm=171, Weight_kg=-75, BMI=24.28}; row 48 {Age_Years=48, Height_cm=0, Weight_kg=78, BMI=24.62}; row 62 {Age_Years=64, Height_cm=162, Weight_kg=62, BMI=23.62}; row 90 {Age_Years=99, Height_cm=170, Weight_kg=65, BMI=22.49}; row 97 {Age_Years=59, Height_cm=167, Weight_kg=67, BMI=55.00}.
Benchmark	MGMA (Medical Group Management Association) Cost Survey: Cost to rework or appeal a rejected/denied claim averages $25 to $118 per encounter
Root Cause	Missing front-end EHR field constraints, automated range-checks, and boundary validation rules during clinical intake or transcription (e.g., negative weights, missing decimal points in temperature 365 vs 36.5, zero heights).
Financial Impact	$150 – $708 in immediate administrative rework costs across affected encounters (6 rows × $25 to $118 MGMA benchmark), scaling to $10,000 – $47,200 annually per 10,000 patient encounters if unchecked.
Recommended Action	Implement hard and soft input validation boundaries in the clinical EHR intake interface (e.g., positive non-zero limits on Height_cm and Weight_kg, valid physiological range

#1 · Numeric outliers & anomaly screening	Medium
	rules for Temperature_Value and Diastolic_BP_mmHg).



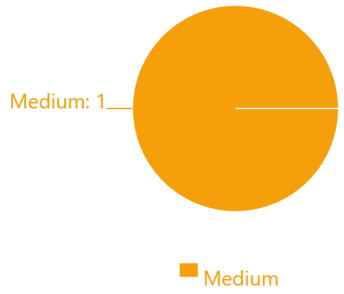
Visual Summary

Visual Intelligence

Charts derived from your data and detected leaks

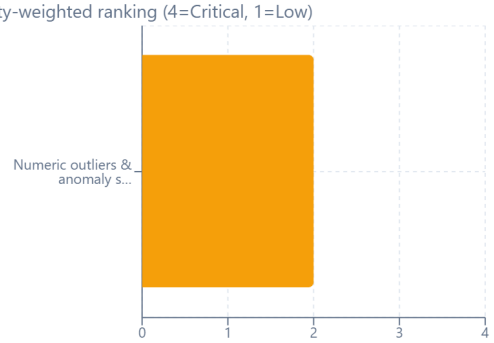
Money Leaks by Severity

How urgent are the detected leaks



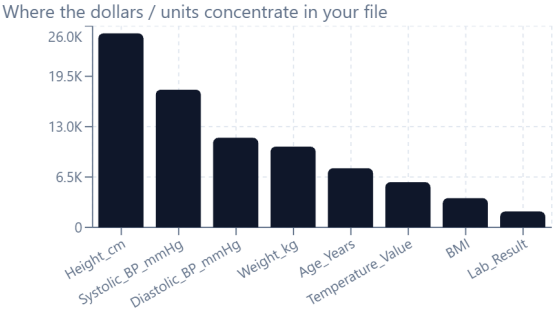
Leak Risk Score

Severity-weighted ranking (4=Critical, 1=Low)



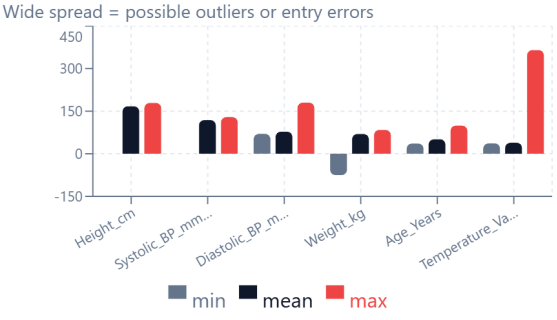
Top Numeric Columns (Total)

Where the dollars / units concentrate in your file



Min / Mean / Max Spread

Wide spread = possible outliers or entry errors



Recommended KPIs

KPI	Formula	Why It Matters	Benchmark
Vital Sign Data Anomaly Rate	(Number of encounters with vitals outside physiological range / Total clinical encounters) * 100	Measures documentation accuracy at intake; extreme anomalies compromise medical decision support and lead to claim rejections or billing audit flags.	< 0.5% of total encounters

KPI	Formula	Why It Matters	Benchmark
Clinical Documentation Denial Rate	(Number of claims denied due to incomplete/inaccurate clinical documentation / Total claims submitted) * 100	Directly reflects billing revenue leakage and administrative overhead triggered by dirty clinical data.	< 5% across commercial and Medicare claims
Encounter Record Completeness %	(Encounters with complete valid mandatory fields [Height_cm, Weight_kg, BMI, BP] / Total encounters) * 100	Incomplete or logically invalid vital entries (such as Height_cm=0) preclude proper risk adjustment scoring and quality reporting.	100% compliant
Lab Turnaround Time (Days)	Average number of days between Lab_Collected_Date and Lab_Result_Date	Ensures rapid clinical follow-up, preventing delayed patient care and diagnostic rework costs.	24 - 48 hours
Follow-up Completion Rate	(Number of completed follow-up visits / Number of scheduled Follow_Up_Date encounters) * 100	Tracks care continuity and patient retention revenue derived from scheduled follow-up dates.	> 75% for routine follow-ups

Column Mapping

Source Column	Canonical Concept	Data Type
Record_ID	record_id	id
Encounter_ID	encounter_id	id
Patient_ID	customer_id	id
Date_of_Birth	date_of_birth	date
Age_Years	age	numeric
Visit_Date	date	date
Follow_Up_Date	follow_up_date	date
Doctor_ID	doctor_id	id
Visit_Type	channel	category
Visit_Status	status	category
Height_cm	height	numeric
Weight_kg	weight	numeric
BMI	bmi	numeric
Systolic_BP_mmHg	systolic_bp	numeric
Diastolic_BP_mmHg	diastolic_bp	numeric
Temperature_Value	temperature	numeric
Temperature_Unit	temperature_unit	category
Allergy_Status	allergy_status	category
Allergen	allergen	category
Lab_Test	lab_test	category
Lab_Result	lab_result	numeric
Lab_Unit	lab_unit	category
Lab_Collected_Date	lab_collected_date	date

Source Column	Canonical Concept	Data Type
Lab_Result_Date	lab_result_date	date

Methodology

This report presents a risk-sizing estimate rather than a forensic audit. It anchors deterministic clinical documentation errors identified in user aggregates to published healthcare industry rework and claim denial benchmarks. All financial and operational risk estimates should be reconciled against general ledger billing and claims data prior to operational interventions.

Recommended Next Step

Configure mandatory input masks and range validation checks on vital sign capture screens in the EHR to eliminate invalid clinical values prior to encounter submission.

Audit Trail — What the AI Analyzed

Every claim in this report must trace back to the data below. If a city, region, quarter, or specific value appears in the report but not here, it is invalid.

Headers sent (24)

Record_ID, Encounter_ID, Patient_ID, Date_of_Birth, Age_Years, Visit_Date, Follow_Up_Date, Doctor_ID, Visit_Type, Visit_Status, Height_cm, Weight_kg, BMI, Systolic_BP_mmHg, Diastolic_BP_mmHg, Temperature_Value, Temperature_Unit, Allergy_Status, Allergen, Lab_Test, Lab_Result, Lab_Unit, Lab_Collected_Date, Lab_Result_Date

Column	Min	Max	Mean	Sum
Age_Years	36	99	50.92	7,638
Height_cm	0	179	166.98	25,047
Weight_kg	-75	84	69.53	10,429
BMI	22.04	55	25.18	3,776.83
Systolic_BP_mmHg	0	129	118.5	17,775
Diastolic_BP_mmHg	70	180	77.62	11,566
Temperature_Value	36.5	365	38.94	5,840.8
Lab_Result	13	14.4	13.7	2,055

Sample rows sent (20 of 150 total)

Record_ID	Encounter_ID	Patient_ID	Date_of_Birth	Age_Years	Visit_Date	Follow_Up_Date	Doctor_ID	Visit_Type	Visit_Status	Height_cm	Weight_kg	BMI	Systolic_BP_mmHg	Diastolic_BP_mmHg	Temperature_Value	Temperature_Unit	Allergy_Status	Allergen	Lab_Test	Lab_Result	Lab_Unit	Lab_Collected_Date	Lab_Result_Date
CLN-0001	ENC-0001	PAT-001	1961-01-15	65	2026-09-01	2026-09-15	DOC-001	Routine Follow-up	Completed	161	61	23.53	111	71	36.6	C	None Known	None	Hemoglobin	13.1	g/dL	2026-09-01	2026-09-02
CLN-0002	ENC-0002	PAT-002	1962-01-15	64	2026-09-01	2026-09-15	DOC-002	Routine Follow-up	Completed	162	62	23.62	112	72	36.7	C	None Known	None	Hemoglobin	13.2	g/dL	2026-09-01	2026-09-02
CLN-0003	ENC-0003	PAT-003	1963-01-15	63	2026-09-01	2026-09-15	DOC-003	Routine Follow-	Completed	163	63	23.71	113	73	36.8	C	None Known	None	Hemoglobin	13.3	g/dL	2026-09-01	2026-09-02

Record_ID	Encounter_ID	Patient_ID	Date_of_Birth	Age_Years	Visit_Date	Follow_Up_Date	Doctor_ID	Visit_Type	Visit_Status	Height_cm	Weight_kg	BMI	Systolic_BP_mmHg	Diastolic_BP_mmHg	Temperature_Value	Temperature_Unit	Allergy_Status	Allergen	Lab_Test	Lab_Result	Lab_Unit	Lab_Collected_Date	Lab_Result_Date
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CLN-0004	ENC-0004	PAT-004	1964-01-15	62	2026-09-01	2026-09-15	DOC-004	RoutineFollow-up	Completed	164	64	23.80	114	74	36.9	C	NoneKnown	None	Hemoglobin	13.4	g/dL	2026-09-01	2026-09-02
CLN-0005	ENC-0005	PAT-005	1965-01-15	61	2026-09-01	2026-09-15	DOC-005	RoutineFollow-up	Completed	165	65	23.88	115	75	37.0	C	NoneKnown	None	Hemoglobin	13.5	g/dL	2026-09-01	2026-09-02
CLN-0006	ENC-0006		1966-01-15	60	2026-09-02	2026-09-16	DOC-001	RoutineFollow-up	Completed	166	66	23.95	116	76	36.5	C	NoneKnown	None	Hemoglobin	13.6	g/dL	2026-09-02	2026-09-03
CLN-0007	ENC-0007	PAT-007	1967-01-15	59	2026-09-02	2026-09-16	DOC-002	RoutineFollow-up	Completed	167	67	24.02	117	77	36.6	C	NoneKnown	None	Hemoglobin	13.7	g/dL	2026-09-02	2026-09-03
CLN-0008	ENC-0008	PAT-008	1968-01-15	58	2026-09-02	2026-09-16	DOC-003	RoutineFollow-up	Completed	168	68	24.09	118	78	36.7	C	NoneKnown	None	Hemoglobin	13.8	g/dL	2026-09-02	2026-09-03
CLN-0009	ENC-0009	PAT-009	1969-01-15	57	2026-09-02	2026-09-16	DOC-004	RoutineFo	Completed	169	69	24.16	119	79	36.8	C	NoneKnown	None	Hemoglobin	13.9	g/dL	2026-09-02	2026-09-03

Record_ID	Encounter_ID	Patient_ID	Date_of_Birth	Age_Years	Visit_Date	Follow_Up_Date	Doctor_ID	Visit_Type	Visit_Status	Height_cm	Weight_kg	BMI	Systolic_BP_mmHg	Diastolic_BP_mmHg	Temperature_Value	Temperature_Unit	Allergy_Status	Allergen	Lab_Test	Lab_Result	Lab_Unit	Lab_Collected_Date	Lab_Result_Date
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CLN-0010	ENC-0010	PAT-010	1970-01-15	56	2026-09-02	2026-09-16	DOC-005	Routine Follow-up	Completed	170	70	24.22	120	80	36.9	C	None Known	None	Hemoglobin	14.0	g/dL	2026-09-02	2026-09-03
CLN-0011	ENC-0011	PAT-011	1971-01-15	55	2026-09-03	2026-09-17	DOC-001	Routine Follow-up	Completed	171	71	24.28	121	81	37.0	C	None Known	None	Hemoglobin	14.1	g/dL	2026-09-03	2026-09-04
CLN-0012	ENC-0012	PAT-012	1972-01-15	54	2026-09-03	2026-09-17	DOC-002	Routine Follow-up	Completed	172	72	24.34	122	82	36.5	C	None Known	None	Hemoglobin	14.2	g/dL	2026-09-03	2026-09-04
CLN-0013	ENC-0013	PAT-013	1973-01-15	53	2026-09-03	2026-09-17		Routine Follow-up	Completed	173	73	24.39	123	83	36.6	C	None Known	None	Hemoglobin	14.3	g/dL	2026-09-03	2026-09-04
CLN-0014	ENC-0014	PAT-014	1974-01-15	52	2026-09-03	2026-09-17	DOC-004	Routine Follow-up	Completed	174	74	24.44	124	84	36.7	C	None Known	None	Hemoglobin	14.4	g/dL	2026-09-03	2026-09-04
CLN-0015	ENC-0015	PAT-015	1975-01-15	51	2026-09-03	2026-09-17	DOC-005	Routi	Completed	175	75	24.4	125	70	36.8	C	None Known	None	Hemoglobin	13.0	g/dL	2026-09-03	2026-09-04

Record_ID	Encounter_ID	Patient_ID	Date_of_Birth	Age_Years	Visit_Date	Follow_Up_Date	Doctor_ID	Visit_Type	Visit_Status	Height_cm	Weight_kg	BMI	Systolic_BP_mmHg	Diastolic_BP_mmHg	Temperature_Value	Temperature_Unit	Allergy_Status	Allergen	Lab_Test	Lab_Result	Lab_Unit	Lab_Collected_Date	Lab_Result_Date
								neFollow-up				9											
CLN-0016	ENC-0016	PAT-016	1976-01-15	50	2026-09-04	2026-09-18	DOC-001	RoutineFollow-up	Completed	176	76	24.54	126	71	36.9	C	NoneKnown	None	Hemoglobin	13.1	g/dL	2026-09-04	2026-09-05
CLN-0017	ENC-0017	PAT-017	1977-01-15	49	2026-09-04	2026-09-18	DOC-002	RoutineFollow-up	Completed	177	77	24.58	127	72	37.0	C	NoneKnown	None	Hemoglobin	13.2	g/dL	2026-09-04	2026-09-05
CLN-0018	ENC-0018	PAT-018	1978-01-15	48	2026-09-04	2026-09-18	DOC-003	RoutineFollow-up	Completed	178	78	24.62	128	73	36.5	C	NoneKnown	None	Hemoglobin	13.3	g/dL	2026-09-04	2026-09-05
CLN-0019	ENC-0019	PAT-019	1979-01-15	47	2026-09-04	2026-09-18	DOC-004	RoutineFollow-up	Completed	179	79	24.66	129	74	36.6	C	NoneKnown	None	Hemoglobin	13.4	g/dL	2026-09-04	2026-09-05
CLN-0020	ENC-0020	PAT-020	1980-01-15	46	2026-09-04	2026-09-18	DOC-005	RoutineFollow-up	Completed	160	80	31.25		75	36.7	C	NoneKnown	None	Hemoglobin	13.5	g/dL	2026-09-04	2026-09-05