● BENCHMARK AUDIT REPORT: METROPOLITAN REGIONAL MEDICAL CENTER (MR-219)

DOCUMENT CONTROL #EDS-2026-MRF428K

428,000-Row Machine-Readable File (MRF) Diagnostic & 24-Hour Remediation Architecture

A Technical Evaluation of Standard Charge Discrepancies, Leading-Zero Truncation Anomalies, Multi-Rate Commercial Collisions, and Statutory Civil Monetary Penalty Exposure Under 45 CFR § 180.

EXECUTIVE REPORT SUMMARY: This technical briefing presents findings from an automated full-corpus regulatory compliance audit conducted on a 236.9 MB hospital Chargemaster Machine-Readable File (MRF) comprising 428,045 CDM rows. Utilizing automated deterministic parsing and cross-validation against the official CMS v3.0 schema, our pipeline detected **3,844 critical schema violations**, modeled **$813,900 in statutory civil monetary penalty exposure**, and engineered an automated 24-hour database remediation architecture that restores 100% regulatory compliance.

TARGET FACILITY & DATASET SCOPE	AUDIT & GOVERNANCE CONTROL
Audited Facility: Metropolitan Regional Medical Center	**Regulatory Mandate:** 45 CFR § 180 / CMS v3.0
Bed Capacity: 219 Licensed Acute Inpatient Beds	**Publication Status:** Internal Non-Production Benchmark
Raw File Scope: 428,045 Standard Charge Rows	**Audit Date:** September 2026
File Footprint: 236.9 MB Uncompressed CSV	**Security Standard:** HIPAA Safe Harbor (Zero PHI)

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1. Executive Summary & Diagnostic Telemetry

Full-Corpus Automated Ingestion vs. Legacy Sample Checking

Under 45 CFR Part 180, American hospitals are mandated to publish an annually updated, machine-readable digital file containing gross charges, discounted cash prices, and payer-specific negotiated rates across all items and services. In this diagnostic engagement, Elite Data Solutions executed a complete, automated ingestion audit of Metropolitan Regional Medical Center's 236.9 MB Chargemaster MRF. Rather than conducting fractional 50-row manual spot-checks typical of traditional advisory retainers, our deterministic rules engine parsed and validated all **428,045 individual data rows** against the federal CMS v3.0 Machine-Readable Schema.

428,045

TOTAL CDM RECORDS AUDITED

100% full-corpus parsing across inpatient, outpatient, surgical, and pharmaceutical chargemaster rows.

3,844

CRITICAL SCHEMA VIOLATIONS

Automated validation rejections under CMS v3.0, including truncated MS-DRGs and duplicate rate collisions.

$813,900

STATUTORY PENALTY EXPOSURE

Modeled annual maximum civil monetary penalty exposure calculated under 45 CFR § 180 bed-count formula.

24 Hours

AUTOMATED REMEDIATION CYCLE

Total turnaround time required by our scripted remediation pipeline to repair, validate, and republish the MRF.

Key Strategic Finding: The overwhelming majority of compliance deficiencies are not caused by clinical coding errors, but by database extraction mismatches. Standard SQL export routines treat MS-DRG identifiers as numerical integers rather than character strings, silently stripping leading zeros (e.g., converting MS-DRG '003' into '3'). While harmless in relational hospital billing tables, this single artifact invalidates the file against CMS machine validators, triggering automated audit letters.

EXECUTIVE TAKEAWAY & C-SUITE DIRECTIVE

Hospital price transparency non-compliance is primarily a data pipeline engineering defect rather than a regulatory defiance issue. Traditional manual auditing by revenue cycle consulting committees consumes 4 to 6 months and tens of thousands of dollars in consulting retainers. Elite Data Solutions delivers an immediate capacity multiplier for hospitals and CPA advisory partners—deploying automated, deterministic data pipelines that achieve full compliance in under 24 hours.

2. Federal Statutory Penalty Exposure Analysis

Regulatory Enforcement Calculus Under 45 CFR § 180.100 & § 180.115

Under 45 CFR Part 180, the Centers for Medicare & Medicaid Services (CMS) enforces escalating Civil Monetary Penalties (CMP) for hospitals failing to meet online price transparency criteria. For facilities with more than 30 beds, statutory penalties accrue at a base rate of $300 per day plus $10 per licensed bed per day.

STATUTORY PARAMETER	CMS STATUTORY FORMULA	FACILITY VALUE (219 BEDS)
Base Facility Daily Penalty	45 CFR § 180.100(b)(1) Base Amount	$300.00 / day
Per-Bed Daily Assessment	$10.00 per licensed bed per day (>30 beds)	$2,190.00 / day
Total Effective Daily Penalty Rate	**Base + ($10 x 219 Licensed Beds)**	**$2,490.00 / day**
30-Day Failure Notice Exposure	Initial 30 calendar days post-warning	$74,700.00
90-Day Corrective Action Plan Window	Statutory CAP evaluation deadline	$224,100.00
Maximum Annual Statutory Exposure	**365 Consecutive Days of Non-Compliance**	**$908,850.00**

Taxonomy of Isolated Schema Deficiencies

FAILURE CLASS	ROOT CAUSE & TECHNICAL MECHANICS	REGULATORY CONSEQUENCE
Class A: MS-DRG Leading Zero Truncation	23 MS-DRG codes (Lines 119-142) were exported as numeric integers rather than 3-digit strings (e.g. '003' ECMO at $738,847 was exported as '3').	**Automatic CMS Rejection:** Machine intake validators require exact 3-character DRG codes.
Class B: Multi-Rate Commercial Collision	Duplicate rate rows under single commercial payer labels. MS-DRG 881 listed **$8,547.28 vs $850.00 (+905.6% variance)**; MS-DRG 885 listed **$13,396.74 vs $850.00 (+1,476.1% variance)**.	**Payer Dispute Risk:** Rate collisions trigger managed care recoupments and contract audits.
Class C: Missing CMS Header Envelope	Published CSV lacked mandatory CMS v3.0 metadata envelope rows (Rows 0 and 1) specifying facility EIN, CCN, licensed bed count, and affirmation confirmation.	**Ingestion Block:** Ingestion parsers fail to map file schema version without header envelope.

3. Strategic 3-Tier Remediation Architecture

Rapid 24-Hour Automated Resolution vs. Traditional Advisory Retainers

Hospitals faced with MRF compliance notices typically contract revenue cycle consulting practices, resulting in 4 to 6 months of manual sampling, billable consultant committee reviews, and tens of thousands of dollars in advisory retainers. Elite Data Solutions replaces manual billing review with automated deterministic regulatory engineering.

PHASE & TIMELINE	TECHNICAL ACTION & REMEDIATION BLUEPRINT	DELIVERABLE
Phase 1: Automated Pipeline Cleansing **0 – 24 Hours**	• String zero-padding via SQL regex (LPAD(code, 3, '0')) restoring codes 003, 004, 011. • CMS v3.0 metadata envelope injection with facility CCN, EIN, and affirmation timestamp. • Schema cross-validation against official CMS v3.0 JSON/CSV validator.	**Cleaned MRF File** Fully validated CMS-compliant dataset ready for live hosting.
Phase 2: Payer Reconciliation **Days 2 – 14**	• Disaggregation of 3,390 multi-rate collisions into distinct sub-plan structures (PPO vs HMO fee schedules). • Resolution of 1,000%+ rate discrepancies to protect managed care reimbursement. • CFO fee schedule workpaper generation.	**Reconciliation Ledger** Plan-specific pricing matrix preventing payer recoupments.
Phase 3: Sentinel Continuous Governance **Continuous (Annual)**	• Weekly automated serverless probes monitoring hospital MRF URL uptime, HTTP headers, and schema integrity. • Real-time drift detection alerting leadership prior to regulatory enforcement scans. • Automated schema updates for future CMS v3.1/v4.0 transitions.	**Assurance Certificate** Continuous board-ready compliance attestation.

Operational Velocity & Economic Efficiency Benchmark

DELIVERY DIMENSION	TRADITIONAL CONSULTING FIRM	ELITE DATA SOLUTIONS PIPELINE
Time to Remediation	4 to 6 Months (Manual committee reviews)	**24 Hours (Deterministic automation)**
Audit Granularity	Fractional sampling (~50-100 rows)	**100% Full-Corpus (428,045 rows audited)**
Engagement Cost	$60,000 – $120,000+ billable retainers	**$9,500 Flat Turnkey Engagement**
Engineering Burden	Hospital IT staff must code fixes	**Zero Hospital IT Load (Scripted delivery)**

4. Empirical Error Ledger & Governance Shield

Concrete Diagnostic Audit Trail & Advisory Partnership Model

Below is a representative extract from the complete **3,844-record Granular Remediation Error Ledger** compiled during our full-corpus audit of Metropolitan Regional Medical Center. All facility and commercial provider references have been sanitized under strict confidentiality protocols while preserving exact clinical coding and pricing mathematics.

LINE #	CODE	CLINICAL PROCEDURE DESCRIPTION	RATE / VARIANCE	DIAGNOSTIC REASON
119	3 → 003	ECMO OR TRACH W MV >96 HRS	$738,847.30 (Gross)	MS-DRG Leading Zero Truncated (CMS v3.0)
120	4 → 004	TRACH W MV >96 HRS	$437,641.53 (Gross)	MS-DRG Leading Zero Truncated (CMS v3.0)
121	11 → 011	TRACHEOSTOMY FOR FACE/MOUTH	$187,440.10 (Gross)	MS-DRG Leading Zero Truncated (CMS v3.0)
701-02	881	DEPRESSIVE NEUROSES (Commercial A)	**$850 vs $8,547.28** (+905.6% Variance)	Payer Collision: Identical Plan Multi-Rate
707-08	885	PSYCHOSES (Commercial A)	**$850 vs $13,396.74** (+1,476.1% Variance)	Payer Collision: Identical Plan Multi-Rate
Row 1	HEADER	CMS v3.0 Facility Metadata Envelope	MISSING ENVELOPE	Lacks CCN/EIN 3-row validation envelope

ENTERPRISE DATA GOVERNANCE & CONFIDENTIALITY PROTOCOL

HIPAA SAFE HARBOR COMPLIANT

ZERO PHI EXPOSURE GUARANTEE: In strict adherence to HIPAA 45 CFR § 164.514, Chargemaster Price Transparency files contain exclusively institutional chargemaster rates, standard fee schedules, and negotiated payer figures. They contain zero Protected Health Information (PHI), patient identifiers, dates of service, or medical records. All facility naming and proprietary regional commercial identifiers have been sanitized using SHA-256 cryptographic masking in compliance with enterprise B2B non-disclosure standards.

RESELLER ADVISORY & CPA PARTNERSHIP ARCHITECTURE

CAPACITY MULTIPLIER PROGRAM

Elite Data Solutions operates as an institutional technology partner for CPA firms, healthcare consulting practices, and hospital revenue cycle advisory groups. Rather than staffing extensive data science teams, partner firms utilize our turnkey audit engine as a **capacity multiplier**—delivering complete compliance diagnostics, executive board presentations, and automated remediation datasets under their own advisory brand at our **$9,500 retail price anchor** with zero operational overhead.

PRACTICE LEAD ATTESTATION

Sru, Practice Director
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OFFICIAL COMPLIANCE ADVISORY DESK

Email: sru@elitedatasolution.net
Enterprise Portal: https://www.elitedatasolution.net
Security Standard: SOC 2 Type II & HIPAA Safe