

Denial Taxonomy & Root Cause Frameworks

A Comprehensive Classification Guide for All Payer Types

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1. Overview & Purpose

This document provides a standardized taxonomy for classifying claim denials across commercial, managed care, and Medicare/Medicaid payer types. A consistent classification system enables revenue cycle teams to identify patterns, assign root causes, and develop targeted remediation strategies. Without a shared taxonomy, organizations risk under-reporting denial volumes and misallocating recovery resources.

Industry Benchmark: The average hospital denies approximately 10-15% of claims on first submission. Of those, only 60% are successfully appealed and collected. A strong taxonomy reduces this gap.

2. Denial Category Taxonomy

Denials are broadly segmented into four primary categories. Each category has distinct root causes and appropriate resolution pathways.

Administrative Denials

- Description:** Missing/invalid patient info, auth issues, timely filing, duplicate claims
- Ownership:** Front-end registration, authorization workflows

Clinical Denials

- Description:** Medical necessity, level of care, experimental treatment, lack of documentation
- Ownership:** Utilization management, clinical documentation improvement (CDI)

Coding & Billing Denials

- Description:** Incorrect CPT/ICD codes, unbundling, modifier misuse, place of service errors
- Ownership:** Coding education, charge capture, encoder updates

Technical / Payer-Side Denials

- Description:** Eligibility mismatch, plan limitation, coordination of benefits (COB), capitation
- Ownership:** Eligibility verification, payer contract review

Denial Type	Avg % of Total Denials	Avg Recovery Rate	Priority
Administrative	35-40%	75-85%	High
Clinical	25-30%	50-65%	Critical
Coding/Billing	20-25%	65-75%	High
Technical/Payer	10-15%	40-55%	Medium

Source: HFMA & Advisory Board benchmarks (general industry estimates)

3. Root Cause Analysis (RCA) Framework

Root cause analysis moves beyond the denial symptom to identify the upstream process failure. Use the 5-Why methodology combined with the domains below to ensure accurate cause attribution.

- **People:** Staff training gaps, high turnover, role ambiguity, communication breakdowns
- **Process:** Missing workflow steps, lack of pre-authorization follow-up, no denial tracking loop
- **Technology:** EHR misconfiguration, eligibility system failures, outdated fee schedules
- **Policy/Payer:** LCD/NCD changes, payer policy updates not communicated, contract term misapplication

- **Patient:** Late referrals, non-covered benefits, inactive coverage at DOS

Best Practice: Map each denial to **ONE primary root cause domain** before initiating corrective action. Multi-domain denials should be escalated to leadership for cross-functional resolution.

4. Denial Classification by Payer Type

Payer Type	Top Denial Reason	Timely Filing Limit	Primary Action
Commercial (PPO/HMO)	Auth not obtained	90-180 days typical	Submit auth + medical records
Managed Care (MCO)	Medical necessity	State-specific (often 180d)	Peer-to-peer review + appeals
Medicare FFS	LCD/NCD non-coverage	120 days from EOMB	ABN, redetermination, ALJ
Medicare Advantage	Auth/referral	60 days from denial date	Organization determination
Medicaid	Eligibility lapse	Varies by state (90-365d)	State fair hearing

5. CARC / RARC Quick Reference

Claim Adjustment Reason Codes (CARCs) and Remittance Advice Remark Codes (RARCs) are the primary mechanism payers use to communicate denial reasons on the 835 transaction. Mapping these codes to your internal taxonomy is essential for accurate reporting.

CARC	Description	Category
4	The service is inconsistent with the modifier	Coding
16	Claim lacks required info / invalid info	Administrative
29	Timely filing exceeded	Administrative
49	Service is non-covered / routine	Clinical
50	Not medically necessary	Clinical
96	Non-covered charge	Technical
97	Payment included in allowance for another service	Coding
119	Benefit maximum for this time period exceeded	Technical
151	Payment adjusted, payer deems info insufficient	Clinical
197	Precertification / authorization absent	Administrative

Note: Always reference the current X12 CARC/RARC code list for updates.

6. Denial Prevention Strategies

Pre-Authorization Automation

Implement payer-integrated auth tools to reduce missed auth denials by up to 70%.

Real-Time Eligibility Verification

Verify coverage at scheduling, pre-registration, and day-of-service. Use 270/271 transactions.

Clinical Documentation Improvement (CDI)

Embed CDI specialists in high-denial service lines to ensure medical necessity is documented before claim submission.

Coder Education Cycles

Run quarterly coder education sessions tied to denial trending data. Focus on top-5 denial codes.

Denial Trending Dashboards

Build payer-specific denial dashboards with drill-down to root cause domain. Review weekly at minimum.

Payer Policy Monitoring

Assign payer policy monitoring responsibilities. Track LCD/NCD updates, medical policy bulletins, and contract amendments monthly.

For questions or customization of this framework, contact Revenue Optimization & Intelligence.