Epic Patient Throughput & Revenue Cycle Dashboard

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Mock Data Simulation – July 2024
Power BI | DAX | Python | GitHub Portfolio Project

Project Overview

This project simulates how an Epic Patient Throughput and Revenue Systems Analyst can identify inefficiencies in both clinical flow and revenue cycle operations. Using mock Epic-like data, the dashboard analyzes where delays are occurring in patient movement, charge entry, and claim processing. The goal is to demonstrate how actionable insights can guide system-level improvements that benefit both operations and finance.

Key Insights from the Dashboard

- **Average Length of Stay (LOS):** 101.6 hours, highest in Ortho, ICU, and Oncology units
- **Average Discharge Delay (Order → Execution):** 5.9 hours
- **Average Time from Admission to First Order:** 3.6 hours
- **Average Charge Lag:** 36.8 hours, longest in Oncology and Neuro
- **Average Payment Lag:** 122.0 hours from charge entry to payment posting
- **Denial Rate:** 26.0%, with most denials due to missing documentation and authorization issues

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Recommendations

- Implement Epic alerts for discharge orders open longer than 4 hours to reduce avoidable LOS
- Streamline charge capture workflows in Oncology and Neuro, where charge lag is highest

- Introduce real-time validation for documentation and prior authorization at point of care to reduce denials

- Target Telemetry and Med/Surg units for denial prevention training, based on volume of rejected claims

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Role Alignment

This project reflects the scope of an Epic Patient Throughput and Revenue Systems Analyst role. It shows how I approach cross-functional problem-solving using system data to identify inefficiencies, support clinical teams, and improve financial performance through Epic-supported interventions.