

CTRL+ALT+ DE-ESCALATE

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Learning Objectives



Transformation

Define methods for pulling and cleaning clinical datasets for real-time stewardship action.



Collaboration

Master the framework for partnering with IT teams to ensure dashboard accuracy and buy-in.



Reliability

Establish protocols for validation and reproducibility across EHR system upgrades.

PHASE 01

THE PARTNERSHIP

Finding the "True" Data



The Order (Intent)

CPOE data reflects the provider's plan. It is often inaccurate for actual therapy timing and missed doses.



The Admin (Truth)

MAR data confirms the drug reached the patient. This is the **only valid source** for interventional rounds.



Atomic Sourcing

Target raw "event" tables (Chronicles/MAR scans) rather than pre-aggregated summary reports.

Engaging the Engineering Team



Involve Early

Don't bring a blueprint; bring a clinical challenge. Developers have creative data solutions clinical teams haven't considered.



Connect the 'Why'

Analysts rarely see the patient. Tell them how their SQL query de-escalated a patient or prevented a case of C. diff.



Public Recognition

Send "Kudos" emails to IT leadership. Formal appreciation ensures your future requests move to the top of the pile.

User Personas & Data Needs

Stakeholder	Core Objective	Key Metric Focus	Cadence
Rounding Pharmacist	Daily Intervention	Dose-level MAR data	Real-Time
ASP Physician	Program Strategy	Resistance / Spectrum	Monthly
Executive Leadership	Safety & Oversight	SAAR / DOT / Savings	Quarterly

Rounding vs. Reporting

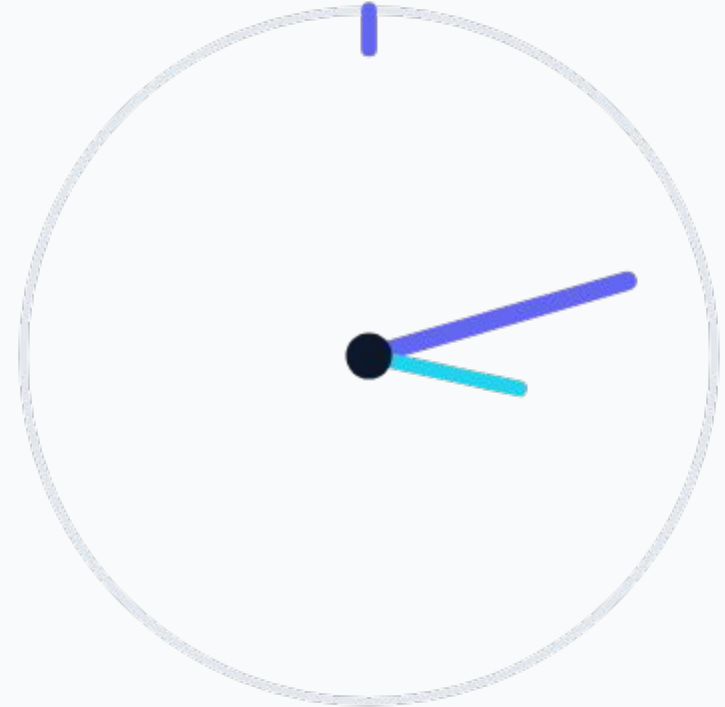
Latency dictates clinical utility.

Operational (Live)

Minutes latency. Built for interventional "To-Do" lists during active rounds.

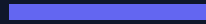
Analytical (Warehouse)

24h+ latency. Built for benchmarking, peer comparison, and oversight.



PHASE 02

ARCHITECTURE



Inpatient Data Infrastructure



Exposure

Administration timestamps (MAR) provide the only true view of medication timing.



Location

Nursing Unit and Department tracking allows for targeted service intervention.



Microbiology

Susceptibility (S/I/R) and collection times linked to active antibiotic rows.

Outpatient & Indication Data

The Refill Signal

Systemic antibiotics rarely need refills. Flagging **Refills > 0** is a high-yield target to identify "just in case" prescribing habits.

Key Metrics: Prescription Date, Days Supply Ordered, Refill Count.

Sources for Indication

- > Order Entry Questions (Hard Link)
- > Problem List / ICD-10 Diagnosis
- > Clinical Documentation / Notes
- > Associated Appointment Reason

The Master Mapping Challenge

Medication Strings

Normalizing 20+ NDCs per drug (e.g., "Vanc 1g" vs "Vancomycin IV") into generic clinical buckets.

Route Normalization

Mapping IV vs PO vs Topical for de-escalation logic and IV-to-PO conversion analytics.

Dosing & Units

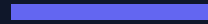
Converting mg/g/unit and weight-based doses into standardized DOT or DDD metrics.

Location Logic

Grouping nursing units into service types (ICU, Med-Surg, Oncology) for valid benchmarking.

CHAPTER 03

STRATEGIES



Inpatient Analytical Strategies



Spectrum Grouping

Track "Anti-Pseudomonal" or "MRSA-Active" as single classes to identify broad utilization trends.



Exclude Outliers

Remove specialty units (CF/BMT) or chronic suppression (Doxy) to find the "true" acute care signal.



Service Benchmarks

Compare Med-Surg to Med-Surg. Comparing disparate services leads to false "bad data" claims.

Outpatient Analytical Strategies



Systemic Focus

Exclude topicals and ophthalmics to focus strictly on systemic resistance drivers.



Viral Mismatch

Flag clinics with high antibiotic rates for Viral Bronchitis or Upper Respiratory infections.



Duration Audit

Monitor "Days Supply" vs guideline targets (e.g., identifying 10-day courses for simple UTI).

The Informatics Tech Stack



EHR Native

Epic SlicerDicer / Cerner Discern. Best for direct clinical workflow integration.



BI Engines

Power BI / Tableau. Best for complex, system-wide "Report Cards" and trending.



Power Query

Prototyping logic in Excel before asking IT for enterprise resources.

CHAPTER 04

SUSTAINABILITY

Multi-Disciplinary Stewardship



Micro Lab

Track turnaround times from collection to result. Slow TATs prolong broad therapy.



Retail Pharmacy

Monitor MPR adherence for chronic ID (HIV/HCV) and flag "Z-Pak" refill patterns.



Administrative

Automated NHSN submission and value-based financial reporting to justify ASP staffing.

The ASP Informatics Playbook

01 Define the Action: Never build without a supported clinical decision.

02 Speak IT: Request patient-level pipelines, not PDF reports.

03 Validate: Review, Test, Review,

04 Partner: Share "clinical wins" with IT to keep developers engaged.

05 Sustain: Schedule checks after every EHR/Reporting system upgrade.

06 Document: Keep a central data dictionary for logic continuity.

Q&A

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