Integrating OMOP data into daily monitoring of Sepsis patients

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NHS

Lancashire Teaching Hospitals

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Secure Data Environment

The Ask & Why

Current Process
- Long, manual monitoring of patients at risk of sepsis via the EPR system
- Clinical staff manually check records, which is time-consuming

Objective: Free Up Clinical Time
- Implement an automated process that consolidates data into one view

Solution: Automated Monitoring System
- Ensures timely interventions by automatically tracking at-risk patients.
- Streamlines processes and reduces manual workload

The Challenges

Key Challenges
- Lack of a centralised system for data
- Information stored across separate systems without a unified patient identifier

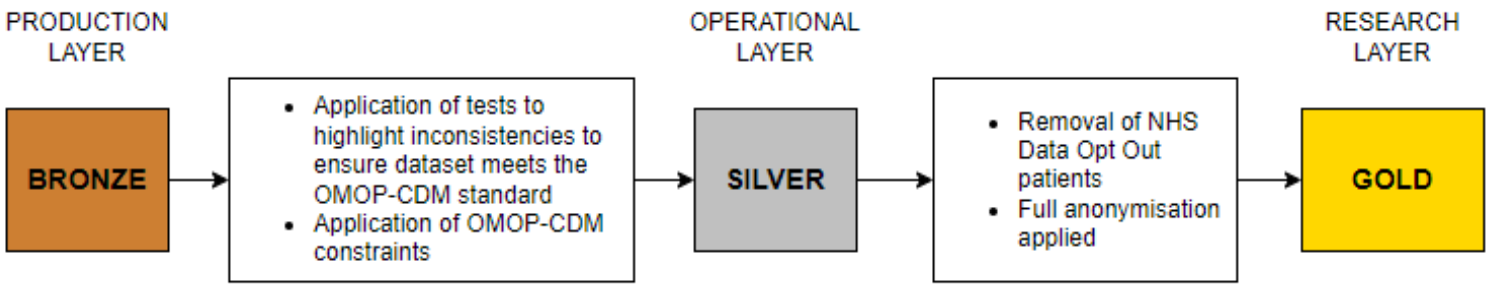
Multiple Parameters
- NEWS Scores
- Prescription Details
- Drug Administration
- Blood Results
- Patient and Location Information

Access Issues
- Querying multiple systems was time-consuming
- Blood results and drug information were the most problematic to retrieve.

The Process & Pipeline

Data Processing in OMOP

- OMOP instance refreshed daily using incremental loading
- Stored in three layers following the medallion architecture



Data for Project

- Concept ids identified
- Extracted from the Silver Layer using a linker SQL server accessing OMOP data from a reporting server

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The Outcome

AUTOMATED PROCESS

INTERACTIVE DASHBOARD

STREAMLINED DATAFLOW

FREED UP CLINICAL TIME

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