Pharmacovigilance: Data Mining & Signal Detection

Query Execution Time Reduced to **3mins**

Better Collaboration & Compliance

Scalable Solution

Agile Reporting System

The Client

One of Colombia's largest pharmaceutical retail company

Industry

Pharma

Overview

Our client is a private company which delivers medication to approximately 6.5 million people in the country which constitutes approximately 13.8% of the country's population. Aims to equip its Pharmacovigilance (PV) team with tools necessary to harness data for informed decision making.

Business Challenge

They hold a large database that contains records for different dispensaries in the province - date of dispensing, drug name, dose, patient info, geographic, etc. But their current infrastructure limits their ability to optimally store, integrate & generate insights rapidly from this huge heterogeneous data.

Our Approach:

Built data flow pipelines, cohort mart, Data science patient mart to run following solutions:

- Central shared data repository: ingested around 600 Mn records.
- Unsupervised algorithm used to generate adverse event signals.
- Dashboard individual patient level information can be viewed.
- Cohort interface based on the specific input criteria.

Outcomes

✓ Repetitive and routine manual tasks automated.
✓ Query execution time reduced from hours to 3 minutes.
✓ Handle diverse data types & manage growing AE volumes.
✓ Generation of Cohorts is fast.