

## Pharma clinical analytics

- Two leading prescription drugs of a \$29 billion Pharmaceutical market leader were analysed for interactions with other drugs
- Drug interaction patterns were developed, both in presence and absence of existing medical history

Our team's demonstrated capabilities are illustrated in these case studies

Our consultants have developed these solutions and related expertise both during current assignments with clients of Ascentra Consulting and also during their previous engagements

### *Challenges*

New drugs are launched in the market after various clinical trials. These drugs can have adverse drug reactions, when used in conjunction with other drugs or due to an underlying medical history. The drug safety department needs to report the reactions of the launched drug with other drugs and also under prevailing medical conditions.

### *Solution*

Patient reaction data was collected for the new drugs from various clinical trials. Text mining was used for mapping

the medical history data of each individual in the clinical trial with the actual ailment terminology. The same was also done for the ADRs (adverse drug reactions) with other drugs.

A data warehouse was built for all these drug reactions, along with medical history. Mining of data was done to get severe reactions for specific medical conditions, for example epileptic reaction in patients with nervous ailments.

Patients who were administered the new drug were also administered another drug for

which reactions were to be



*Pharma Analytics*

analysed. Segmentation was done of the patients to get groups of similar reactions. A further segmentation was done on the underlying medical ailments. The profile of each cluster generated was reported by the safety department.

## *Predictive and Descriptive Analytics*

Classification, Segmentation  
and OLAP mining

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Simple Innovative Solutions

  
*Ascentra Consulting*

We help our clients achieve their identified business outcomes, by providing creative, Predictive Analytics based solutions.

Domain: Supply Chain, Asset Management and Customer Focused solutions for various industries

Analytics: Forecasting & Optimization, Market & Volume Share Predictions, Customer Profiling & Segmentation, Market Basket Analysis, Repeat Buying Behavior Analysis, Credit Scoring, Churn Models & Brand Price Trade Off Models

Technology: SAP : SCM , BI, HANA, Predictive Analytics, SAS, SPSS, Cognos, Hyperion

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