

# Optimized Automated Pharmacovigilance Workflow

Reduced 70% Manual Efforts and 50% Operational Expenses

## Scope

- The algorithm had the ability to extract critical case elements in text editable format from source documents on adverse drug reactions
- 4,000 annotated source documents in the form of structured and unstructured format were annotated by our experts comprising of medical doctors and pharmacists
- The training data set comprised of appropriate text elements and contextual relation within the text covering a broad range of information: Adverse events, patient demographics, reporter details, product information and case details
- Robotic Process Automation, Object Character Recognition, Table pattern recognition, sentence classification, named entity recognition and rule based pattern matching were used to extract data from the digitized documentation
- Test data consisted of 500 source documents which were evaluated by the algorithm and iterative model training was done to achieve desired accuracy
- Database accessed Argus, ArisG, Sapphire via QXML based API calls for auto-population of Database fields
- Other features: Automated quality with minimal human intervention, Sorting of AE by severity, KPI dash boarding and reporting

