Case Study: PQRS Reporting using BI-Clinical

Client Requirements

The client is a non-profit healthcare system in the US providing a range of medical services to over 300,000 patients. The client has multiple specialities with each speciality using a different EHR for managing its patients. The client needed to do GPRO PQRS submission for its providers using a CMS certified registry option for the year 2016. With multiple EHRs and data sources, client faced a challenge in aggregating the data and computing performance of physicians for data submission.

Given its expertise in healthcare BI/analytics and clinical quality measures reporting, CitiusTech was selected to help client in benchmarking performance, reporting and data submission.

CitiusTech Solution

Requirement Analysis

The client partnered with CitiusTech to leverage its ONC Certified healthcare BI/analytics platform, BI-Clinical on IBM PureData System for Analytics (PDA). The platform interfaced with the multiple data sources and computed clinical quality measures selected for PQRS 2016 submission.

BI-Clinical also enabled the client to benchmark performance of providers for different quality measures and generate a PQRS Submission XML in the CMS specified format which can be directly submitted to the CMS by any Registry.

Solution Design

CitiusTech designed the solution by leveraging various IBM technologies including IBM Unified Data Model for Healthcare (UDMH), DataStage and PDA. The solution included following features:

- Data ingestion from heterogeneous source systems – Allscripts database, QRDA files from GE Centricity and CCDA files from Varian
- IBM UDMH data element mapping to source data (Allscripts, GE Centricity and Varian)
- Data enrichment to uniquely identify patients as per client’s assigned ID
- Data aggregation and reconciliation for common patients from different source systems
- PQRS scorecard by physicians with drill down capabilities
- Authentication for the user interface, integrated with client’s active directory
- PQRS registry submission files generation and HIPAA compliance

Value Delivered

By partnering with CitiusTech, the client was able to:

- Leverage BI-Clinical capabilities to compute clinical quality measures effectively based on the data sourced from Allscripts, GE Centricity and Varian
- Submit PQRS 2016 data with GPRO option
- Leverage IBM PDA warehouse as a single source of truth for supporting regulatory reporting needs like PQRS and MIPS/MACRA
- Provide its physicians with an easy-to-use user interface to track their performance on different quality measures and compare themselves with their peers
- Provide physicians with the ability to identify patients affecting their performance and take corrective actions by using the drill down capabilities of BI-Clinical

About CitiusTech

CitiusTech is a specialist provider of healthcare technology services and solutions to medical technology companies, providers, payers and life sciences organizations, with over 2,700 professionals worldwide. CitiusTech’s services and solutions include healthcare software development, healthcare interoperability, regulatory compliance, BI/analytics, consumer engagement, care coordination and population health management. CitiusTech helps customers accelerate innovation in healthcare through a number of solutions and accelerators for clinical quality reporting, healthcare big data, cloud computing, mobile health and predictive analytics. With cutting-edge technology expertise, world-class service quality and a global resource base, CitiusTech consistently delivers best-in-class solutions and an unmatched cost advantage to healthcare clients worldwide.