

2020 GIR Excellence Award Winner
Penn Medicine Precision Medicine and Genomics Team

Penn Medicine set as a strategic priority to implement Precision Medicine and Genomics in the Electronic Medical Record. This initiative included implementation of genomic discrete documentation, integration with genomic labs, and genomic decision support across all of Penn Medicine. The project's objective was to develop a scalable solution for receiving and storing clinically relevant genomic data and facilitate appropriate clinical decision support. The project was a collaborative effort across multiple IT application verticals and clinical and operational support from Genetics, Bioinformatics, Pharmacy, Oncology, and Genetic Counselors.

The team developed a centralized location for storing and displaying genomic results to allow clinicians to easily find genomic information on their patients. We also implemented the Epic Genomic Module for discrete variant documentation and genomic indicators, with full genomic decision support. Genomic decision support includes in-line medication alerts for pharmacogenomics, as well as health maintenance and clinical screening advisories for disease risk. Relevant genomic information is also displayed to the patient in the patient portal to facilitate patient engagement. Finally, this project included implementing orders/results interface for genomic results to external genomics lab.