

ABSTRACT: 2015 ELAM Institutional Action Project Poster Symposium

Project Title: Integrated Genetic and Genomic Testing Initiative within the Mount Sinai Health System (MSHS)

Name and Institution:

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Collaborators:

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Background, Challenge or Opportunity:

The Mount Sinai Medical Center recently merged with the Continuum Hospital Network forming a seven hospital health system with locations throughout the greater New York Metropolitan area including 59 medical specialties and 6,200 affiliated physicians. A major strategic goal for MSHS is to be a leader in personalized medicine. The Mount Sinai Genetic Testing Laboratory (MSGTL) is in a unique position to deliver genetic and genomic tests throughout the health system and aid the advancement of this goal.

Purpose/Objectives:

This project will implement a process within MSHS to address the genetic and genomic testing needs across the seven member hospitals and their affiliated practices. This will be accomplished through systematic assessment across all relevant medical specialties, resulting in the comprehensive integration of these tests within the health system through MSGTL. Once implemented, physicians and their patients across the entire health system will gain access to the most advanced genetic and genomic tests, which will be ordered and resulted through EPIC, the MSHS electronic medical record.

Methods/Approach:

A two-pronged approach will be necessary in order to assess the demand and deliver diverse genetic and genomic tests throughout MSHS. To determine testing needs, the project team and laboratory personnel will meet with the leadership of each relevant group to discuss testing practices, transition current testing to MSGTL, and open a dialog for partnership in patient care between the laboratory and health care providers within MSHS. To meet the testing needs and deliver on the promise of personalized medicine, MSGTL will evolve to accommodate higher test volumes with a diverse testing menu using a flexible and multifaceted client services model, state of the art technology in the form of next generation and third generation sequencing with a highly efficient and streamlined process. This will include full automation of the laboratory workflow and automated delivery of sequence data to the analysis pipeline and uploading of results for analysis. The capacity of MSGTL will increase to deliver 10,000 tests per month, of which MSHS is expected to account for half of the test volume.

Outcomes and Evaluation Strategy:

Although the scope of this project is broad and will span a two year period, our pilot study of Ob/Gyn practices within MSHS provides preliminary data and the framework for comparison. Outcomes will be measured by the number of new tests added to the menu and the volume of tests ordered by MSHS affiliated physicians. Laboratory revenues will be closely monitored and correlated with test orders. Metrics will be tracked by medical specialty and compared to test volumes and revenue projections using a query system within the laboratory information system and IDX, the laboratory billing system.