Genelex Corporation: YouScript Personalized Prescribing Software

Kristine Ashcraft, Chief Operating Officer
Company Information

Company Overview

Genelex is a recognized leader in pharmacogenetic (PGx) DNA testing and personalized medication management systems and software. The company’s high-complexity, CLIA laboratory has more than 25 years of DNA testing experience. In 2000 became one of the first laboratories in the US to provide PGx testing. Today, Genelex provides tools that help prescribers use pharmacogenetic data to prevent adverse drug events, improve treatment and reduce healthcare costs. Genelex’s YouScript Personalized Prescribing software is the only medication management system that assesses the cumulative effect of a patient’s entire drug regimen and genetics. Its clients include healthcare providers, clinical researchers and managed and accountable care organizations.
Solution Overview

➢ **Summary of Application/Product (25 words)**
  - YouScript® evaluates overall adverse drug event risk, identifies at-risk patients, and recommends safer more effective drug regimens so prescribers can improve drug treatment outcomes.

➢ **Summary of Client/Patient benefits from using Product (25 words)**
  - Prescribers using YouScript® can confidently optimize complex medication regimens, reduce side effects and improve treatment efficacy, ultimately helping patients feel better, faster.

➢ **Detailed Description**
  - When used while prescribing, YouScript can help practitioners identify the best drug(s) and dose(s) for a patient’s unique genetics, thus helping to reduce the time, cost, adverse effects and possible hospitalization that can occur with trial-and-error prescribing. No other product does this today.
  - The Allscripts integration enables YouScript to import a practice’s physician, patient, and medication list records, then stratify patient’s into high, medium and low risk groups. Physicians can review each patient’s interactions then use the Alternative Selector to identify safer, more effective drug treatments.
  - The final release will also populate Allscripts patient records with pharmacogenetic test and personalized prescribing results reports, and allow bi-directional exchange to allow physicians to make changes to the patient record in either interface.
Solution Overview

The application developed addresses the following category:

- Applications that improve management of high cost chronic diseases.
- Innovative approaches to addressing value-based care imperatives.
- Both

Healthcare/Business problem addressed:

- Adverse drug events are the **fourth leading cause of death** in the U.S. and cost the nation **$289 billion in unnecessary healthcare costs annually**. More than half of this financial and human cost comes from properly prescribed medications, despite use of drug interaction software.

- Current drug interaction checkers have created alert fatigue by alerting even benign interactions, making it difficult for practitioners to quickly prioritize and take appropriate action for more serious risks or quality-of-life side effects.

- Furthermore, they are **incapable of identifying** probable adverse events occurring from multiple concurrent medications (i.e. **cumulative interaction risk**).

- **No other drug interaction software analyzes a patient’s genetic capacity to process drugs**, even though genetics has a proven effect on treatment efficacy for many conditions: heart disease, chronic pain, depression/behavior management and breast cancer, amongst others.

- No other drug interaction software is updated biweekly by a team of physicians and pharmacists allowing almost real-time access to the growing clinical evidence base on drug interactions and pharmacogenetics.

- YouScript solves these problems by identifying cumulative drug-drug and drug-gene interaction risk; providing clear, actionable guidance for safer treatments; and evaluating and stratifying patient populations to proactively address at-risk patients.
Integration Description

- **Allscripts integration points:**
  - Patient Demographic Data for the provider to view through YouScript.
  - Patient Medication Lists are extracted into YouScript.
  - YouScript inserts tasks into the provider task list
  - YouScript inserts new documents as a lab result and attaches them to a task.
  - YouScript updates patient record with genotype test results.

- **APIs/Web Services calls include:**
  - Get patient
  - Search patients
  - Getchangedpatients
  - Getclinicalsummary
  - Getpatientsections
  - Getproviders
  - Savetask
  - Searchmeds
  - Saveresult *
  - Savedocument *
  - Saveproblem *
  - getMedicationInfo *

* Reflects code that is built but implementation allows some customization and therefore requires customer / beta site input before implementing.
Solution Architecture

ProEHR

Unity (UAI)

EEHR

Allscripts

Web service over HTTPS

Server

EMR-Connector

DB

Youscript
Video Demonstration

- http://info.youscript.com/allscriptsphase2

- The video provides an overview of the YouScript / Allscripts implementation at Stone Run Family Medicine / Union Hospital of Cecil County, MD; a high-level demo of YouScript and the features enabled by Allscripts integration; and some outcomes achieved during the beta.
Contact Information

Genelex Corporation / YouScript Personalized Prescribing Software

800-TEST-DNA
info@youscript.com
www.youscript.com/allscripts