Drug-Gene Interaction Analysis Featured at HIMSS Interoperability Showcase

DNA Tests, Together with YouScript Software, Change Course of Patient Care

CHICAGO, IL, USA, April 14, 2015 /EINPresswire.com/ -- HIMSS 2015, Booths 5220 & 2084, Chicago (April 14, 2015) – The value of pharmacogenetic testing – which reveals how genetics affect our response to drugs – is highlighted in this year's Interoperability Showcase™ at HIMSS 2015, booth 2084, as part of the continuum of care given to a 38 year-old diabetic woman named Isabel who is in a car accident and subsequently diagnosed with breast cancer.

The HIMSS Interoperability Showcase, in partnership with IHE, is a live interactive demonstration where health IT solution providers collaborate to maximize the collective impact of their technologies. The newly re-imagined Interoperability Showcase highlights seamless health information exchange in multiple care settings.

The Showcase tells this story from the viewpoint of a modern-day family's health journey through various healthcare scenarios depicted as individual vignettes.

In the Continuum of Care vignette, workflow, document sharing and continuity of care standards enable efficient transitions of care and provide access to relevant clinical information resulting from Isabel's visit to the ER from an automobile accident.

During her ER visit, Isabel is given tramadol, a pain medication metabolized by the highly-variant CYP2D6 enzyme. She begins to experience extreme sedation and obtundation, or decreased alertness, as a result. She also receives a routine CT scan of her chest, abdomen and pelvis reveals a small mass in her breast. Following a mammogram and biopsy, standard lab tests for pathology and blood work confirm cancer.

Once discharged, Isabel is referred to her primary care provider, who sees that she has had an adverse drug event related to tramadol and is also at high-risk for probable drug-gene interactions due to her cancer diagnosis and ongoing psychiatric treatment. Due to these factors, the primary care doctor orders pharmacogenetic testing. The discovery of any potentially negative drug-gene interactions using this testing gives physicians a powerful new tool to understanding and guiding eventual treatment.

In Isabel's case, the simple DNA test – via a check swab or pin prick – made the difference in the choice of medications, ensuring their safety and efficacy.

Pharmacogenetic testing and its application to day-to-day medical care is growing nationally and internationally, as research continue to show its impact on improving individual care and long-term outcomes.

Genelex, based in Seattle, was one of the first laboratories in the U.S. to provide drug-gene testing. In 2012, the company introduced YouScript Personalized Prescribing Software, a companion clinical decision support tool that put patients' analysis and interpretation of pharmacogenetic test results at

the fingertips of physicians. In this scenario, once Isabel's genetic test results and her medication list are shared with this software, YouScript informs her doctors of how her genetics will affect her drug regimen and provides suggested alternative medications.

Specifically, the DNA test details:

• Drug metabolism rate: More than 75 percent of patients do not metabolize drugs normally. If a drug is broken down too fast, its therapeutic effect will not be realized; if broken down too slowly, side effects or toxic build-up is possible
• The risk of multiple drug interactions, including drug-drug and drug-drug-gene interactions, that could be dangerous
• Potential unfavorable reactions, or Adverse Drug Events, due to a drug-gene interaction

Genetic testing indicated Isabel has a genetic variant that would have caused her to inefficiently metabolize amitriptyline, a medication commonly prescribed to treat neuralgia. Additionally, it's determined that the fluoxetine (Prozac) she is currently taking may interfere with other medications necessary to her treatment. Zoloft, an alternative to fluoxetine, is subsequently identified as a much safer choice for her.

Interoperability with Other IT Systems
In this showcase scenario, the YouScript software hypothetically interfaces with multiple healthcare technology solutions, including GE Centricity, Qvera and Intersystems at the early stage of Isabel's treatment, when medical records are being created. Thus, her genetic data becomes a permanent part of her medical record and easily accessible to the psychiatric provider, who reconciles the patient's record in their Epic system.

Achieving interoperability across healthcare IT systems nationally by 2017 is the goal of the Office of the National Coordinator for Health Information Technology (ONC), the federal agency at the forefront of promoting healthcare IT innovations. Its draft Interoperability Roadmap is a guide for providers and professionals toward the creation of new standards for efficiently and securely sharing patient information, with the goal of improving care.

It is a goal shared by the public: 75 percent of 1,011 respondents in a recent survey said it is very important that their health records be easily shared; while a full 20 percent said they or a family member had experienced a problem receiving medical care because their health records couldn't not be shared between providers. The survey, conducted by ORC International, was published by The Society of Participatory Medicine.

Genelex is currently part of the Allscripts Developer Program, which enables its YouScript Personalized Prescribing Software to be integrated with Allscripts EHR platforms. Genelex is developing additional partnerships with other EHR, Population Health, e-prescribing and patient health software manufacturers and third-party developers.

For more information about Genelex and its YouScript Personalized Prescribing Software, visit www.Youscript.com or contact the company by telephone at 800.837.8362 or e mail: info@genelex.com.

About Genelex
Genelex is a pioneer in comprehensive medication management, pharmacogenetic testing and analysis. Its patented YouScript Personalized Prescribing Software is the only commercially-available medication management system to assess the cumulative effect of a patient's genetics and entire drug regimen. YouScript is an Allscripts Developer Program Approved Application and is used by

healthcare providers, clinical researchers and managed and accountable care organizations. Founded in 1987, Genelex is based in Seattle and was one of the first labs to provide pharmacogenetic testing and interpretation. For more information, please go to: www.genelex.com or www.youscript.com.

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