

Uptake of pharmacogenomic service pilot in community pharmacy

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Abstract

Community pharmacists are accustomed to optimizing drug therapy by using observable patient characteristics such as age, comorbidities and concurrent medicines, while largely disregarding genetics.¹ However, it is estimated that genetic factors could contribute between 25%-50% of inappropriate drug responses.² Pharmacogenomics (PGx) is an emerging field that uses an individual's genetic information to determine whether the person will benefit from the medication or suffer side effects.² Due to advances in PGx testing technology, it is now possible for community pharmacists to integrate this into patient care. In this study, we assessed what types of patient population would be interested in PGx testing service at community pharmacy. We recruited patients using our personalized eligibility criteria list: age group between 30-60 years old, private insurance or cash paying, and on medications for depression, anxiety, pain, clopidogrel or proton pump inhibitors. Over the 4 weeks, we offered the service to 75 patients over the phone which resulted in 15 interested patients: 12 were on antidepressants or anxiety medications, 2 on chronic pain medication and 1 on clopidogrel. We discovered that patients who were currently struggling with their drug therapy, especially medications effecting mood, were the most responsive. Due to the high upfront cost of PGx test, more than 80% of patients preferred to do the PGx test if it was covered by private insurance. Through this pilot project, we realized there is clinical value in the setting of mental health since many patients on antidepressants, that failed several therapies due to standard trial and error prescribing, appreciated the value of pharmacogenetics to improve medication adherence and reduce health care costs. In conclusion, pharmacogenomic testing serves as a valuable tool for community pharmacists to impact patient care by targeting drug therapy through a personalized medicine approach. The overall outcome for patients is greater treatment efficacy, fewer adverse events and drug interactions and improved medication adherence.

References:

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