

# IMPROVING THERAPEUTIC OUTCOMES AND REDUCING COSTS

## BenePrecise®, BeneCard's Precision Medication Program

Medications can be therapeutic and life-saving. They can also be entirely ineffective, harmful, or even fatal.

Medication failures are overwhelmingly due to a few differences in our genetic makeup that lead to poor outcomes. This is the cost of impersonal prescribing.

Through the science of pharmacogenomics (PGx), we are now able to understand which medications are most effective for each individual and which should be avoided.

By applying this knowledge to clinical care, the BenePrecise® program was developed to make personalized prescribing possible. Through this new program, BeneCard PBF offers a tested methodology for accurately and personally identifying patient needs. Therefore, we are able to offer BenePrecise® to make healthcare more effective, efficient, and less costly.

With this data-focused approach, BenePrecise® provides a robust engagement strategy and delivers individualized high-touch clinical pharmacy care, making a new generation of personalized healthcare a reality.



"Without this test, I would still be struggling to get my high blood pressure under control while furthering the damage being done by a heart condition I have."

- Dorothy, 63\*



"A bad reaction to a common, prescribed pain medication almost put me in the hospital. Now I know exactly what will work safely for me in the future."

- Jake, 52\*

## Employer Program Results

Based on recent study conducted of employees of United States based company with onsite healthcare program. The study focused on behavioral health medication dependencies and reliance on direct involvement of a trained pharmacist in pharmacogenomics.

Of patients tested for this study, the results were as follows:

**64%**

Required one or more medication or medication dose changes.

**22%**

Identified as "at risk" based on their current medication(s) and for possible adverse effects and elevated drug concentration, risking drug toxicity.

**47%**

Had one or more medications discontinued due to lack of efficacy.

\*Images are representations of actual patients

## The Data

**1.3M** Number of Adverse Drug Reactions (ADR's) - causes for emergency room visits and 350,000 hospitalizations per year.<sup>4</sup>

**99%** Percentage of population that have at least ONE genetic mutation that would adversely affect their response to medications.<sup>1,2</sup>

**50%** Percentage of medications found to be minimally or entirely ineffective for genetic variations in individuals.

### Case Study: 37 year-old male with mixed anxiety and depressive disorder.

Two previous courses of treatment had failed and he was referred for BenePrecise testing.

**Results:** Prior treatment failure due to identified genetic status.

**Protocol:** Genetically appropriate medications were prescribed.

#### Pre-BenePrecise Testing

- Moderate depression
- Severe anxiety
- 5 office visits/5 months
- Patient believes treatment ineffective

#### Post-BenePrecise Testing and Medication Adjustment

- Mild depression
- Mild anxiety
- Optimized treatment – 0 office visits
- Patient strongly agrees treatment is effective

## The BeneCard PBF Solution

BeneCard has taken the lead with the BenePrecise® precision medication program for better healthcare and more effective prescribing.

BenePrecise® proactively helps improve outcomes while reducing the need for more acute care (emergency visits, hospitalizations), and additional office visits. This results in savings of overall medical costs.

- Maximize the intended use of the medication
- Speed time to therapeutic benefit
- Reduce medication costs
- Lessen the chance of side effects and/or dependency
- Reduce adverse drug reactions
- Reduce additional healthcare costs



People in focus. Pharmacists in Practice. Bringing Integrity to Prescription Benefits.

1 Yuan, Black et al. J Mol Diag. 2016 May;18(3):438-445.

2 Van Driest et al. Clin Pharmacol Ther. 2014 April;95(4):423-431

3 FDA. Paving the Way for Personalized Medicine. 10/2013

4 Watanambe, McInnis. Annals of Pharmacotherapy 2018, Vol. 52(9) 829-837

5 Wamberg Genomic Consumer Survey, which queried 536 U.S. consumers from 26 to 64 years old with employer-sponsored health insurance. Survey Sampling International (SSI) fielded the survey in October/November 2017.