MedImpact

Independent, Trend-Focused
Pharmacy Benefit Manager®

Healthcare's First Personalized Formulary

First-of-its-kind pharmacogenomics solution to help end "trial and error" prescribing

THE CHALLENGE

In the U.S., there are roughly 2.2 million hospitalizations each year because a prescribed medication caused injury to a member.[i] Approximately five percent of members experience an adverse drug reaction, or ADR, in a given year.[ii] Some of these ADRs can be a result of "trial and error" prescribing – where a doctor tests multiple medications to determine which one works for a given member.

While "trial and error" prescribing is commonly required for conditions, such as depression – at MedImpact, we worked to find another solution that is less time consuming, more cost efficient, and, above all, safer for members

NEW THINKING, NEW APPROACH

Pharmacogenomics, or PGx, is the study of how a person's genetics affects their response to a prescription drug. A person's genetic makeup impacts how effective a medication will be or whether changes to dosing or different medications are required. It also impacts the risk of adverse reactions, such as stroke, arrythmia, and respiratory depression, among others.

Although medical science has long understood the links between genes and prescription drugs, the healthcare industry has struggled to develop the right test for the right members and deliver actionable results to prescribers.

MedImpact has overcome these challenges to deliver a personalized medicine solution with the potential to make PGx a seamless part of every health plan prescription benefits program.

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OUR PGX DIFFERENCE

MedImpact's vision and approach are radically different than other PGx solutions. Today, most PGx programs test to determine how an individual will respond to a single therapy prescribed by a single provider. MedImpact screens for genetic interactions with more than 200 commonly prescribed medications. And we notify every provider who has prescribed medications for that patient of all potential genetic-drug interactions.

One test for a lifetime.

With just one at-home mouth swab, a member is protected for life.

THE TRIAL

MedImpact ran a year-long pilot of our PGx solution for a health plan that serves Wisconsin public employers, their staff, and families throughout the state. Of their members, we enrolled 144 that would benefit the most from testing.

The members took a gene test using a simple, at-home mouth swab. With the results, we began monitoring all of their pharmacy claims for potential ADRs based on their genetic profile. And with this one test, we are able to continue monitoring for potential issues while the member's pharmacy benefit is being administered by MedImpact.

In the pilot, there were 352 prescribers who ordered a prescription drug with potential genetic implications for their members. MedImpact provided guidance on 83 medications and prescribers made adjustments or noted monitoring measures to 65% of these medications. This led to:

- **Greater Member Safety.** Of the 144 participants, the test identified 38 medications that could have resulted in ADRs. To protect their patient's safety, prescribers changed prescription drugs 47% of the time, thereby reducing the potential for serious adverse reactions. Based on average hospitalization and emergency room costs, avoiding just these few events could have saved the plan $55,000.
- **Better Efficacy and Less Waste.** Effectiveness of medications was of concern for 45 treatments, and specific guidance was provided to prescribers 47% of the time. In all cases, prescribers modified the medications or doses – which also helped to reduce drug waste.
- **Ongoing Protection.** We reached out to each member's prescriber and provided a comprehensive list of all medications of concern for that member – even if the medication was not currently prescribed. As a result, prescriptions that align with the member's genetics improved by 12%. And throughout the member's enrollment in a pharmacy benefit plan administered by MedImpact, when he or she attempts to have a prescription filled for any prescription drug that does not align with his or her genetic makeup, the prescriber will be alerted.

These changes in prescribing reduced toxicity and efficacy concerns and improved the member experience.

A one-time test that pays for itself.

By avoiding just two doctor visits that would have likely occurred through ADRs or trial and error prescribing, the cost of the genetic test is paid for.

THE LEARNINGS: A SCALABLE APPROACH TO "ANY DRUG, ANY TIME, ANY PRESCRIBER" PGX

Many payers have concluded that single drug, single prescriber PGx solutions can be costly and, in many circumstances, provide a low return on investment (ROI). MedImpact's "any drug, any time, any prescriber" approach not only provides members with the potential of a lifetime of protection from adverse events and ineffective therapies, it can offer a significant near and long-term ROI.

[i] www.fda.gov/Drugs/DevelopmentApprovalProcess/DevelopmentResources/DrugInteractionsLabeling/ucm110632.htm

[ii] Stausberg International Prevalence of Adverse Drug Events in hospitals; an analysis of routine data from England, Germany and the USA. BMC Health Services Research 2014, 14:125

MedImpact, an independent, trend-focused pharmacy benefit manager (PBM), is the nation's largest privately held PBM, serving health plans, self-funded employers and government entities. Our unique business model aligns us with our clients. We focus on effectively managing pharmacy benefits to promote Lower Cost and Better Care through One Source.

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