Ask the Expert: Top 5 Ways to Reduce PGx Testing Costs

Cost is a critical consideration for any PGx testing program. I'm no stranger to this concept. I've spent the last 10 years partnering with thought leaders to advance the field of pharmacogenetics. During that time, I've worked with countless newly forming and well-established PGx labs. I've learned there are a handful of common challenges that can drive testing costs 2 to 3 three times higher than what was originally expected. In this piece, I'll share my top suggestions for overcoming these challenges and reducing the cost of PGx testing.

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Top 5 Ways to Reduce PGx Testing Costs

1. **Negotiate a Reasonable Upfront Cost Per Test**
   This may seem obvious, but it's worth mentioning. The "upfront cost per test" is the cost for reagents, equipment amortization and anything else you need to process a single sample. Different technologies can have very different costs. Choose a vendor that offers a reasonable upfront price.

2. **Eliminate the Need to Process Multiple Replicates Per Sample**
   Assay drop-out is a challenge for many PGx technologies. Failing assays result in incomplete genetic information that cannot be reported. To meet their turnaround time obligations, labs are forced to run 2 or 3 replicates for each sample to ensure a complete set of results is obtained on the first pass. That reasonable cost per test has now doubled or tripled. Avoid multiple replicate requirements. Ask if others using the technology run multiple replicates per sample. If they do, consider going another direction.

Top 5 Ways to Reduce PGx Testing Costs — continued

3 Minimize Reagent Waste

Paying for unused reagents is a quick way to balloon costs. Remember that the cost per test provided by the vendor assumes perfect 100% reagent utilization. Most pre-filled cartridges and similar consumables can only be used once. If only part of it is used, the rest is wasted. This can be especially challenging for newer programs that are still building their testing volume. Fewer samples and higher than expected costs is a challenging combination to overcome. Learn about a technology's reagent format. Are reagents used only when samples are run or must they be batched? If you process a smaller number of samples, how much will you pay for unused reagents? Look for technologies which minimize waste when sample volumes don't match the optimal batch size.

4 Consolidate to a Single Workflow

Many PGx programs need genotyping and copy number information to make their recommendations. Unfortunately this often means using multiple platforms, which increases cost and kills lab efficiency. Even if a single platform can perform both procedures, it may still require separate workflows. Consolidating genotyping and copy number variations to a single setup procedure, run and instrument will save precious time and money.

5 Avoid Multiple Assays/Replicates for Copy Number Calling

To get an accurate copy number call, some methods require 3-4 replicates per sample for every assay that is used. Given the importance of detecting *CYP2D6* hybrid alleles, labs are testing 3 or more assays per sample in order to get broader gene coverage. That can mean running 12 replicates for every sample for copy number results alone. Avoid the extra expense by choosing a technology that can accurately provide copy number data with one assay using a single replicate.

How Using Agena for PGx Testing Can Help

PGx testing with Agena provides affordable upfront costs with minimal unexpected extras. No duplicate samples. No reagent waste. Single assay copy number detection that can be run side-by-side with genotyping.

Take Action

Starting a new testing program? Already using another technology? We'd love to discuss how we can reduce your costs. Contact agenabio.com to learn more.

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