The Future Of Prescribing





Calian Health and Inagene Diagnostics Inc. Pilot 2020

Calian Health and Inagene Diagnostics Inc. collaborated on a pilot in late 2020 involving 50 patients with chronic pain and/or mental health conditions to evaluate the "real-life" value of using pharmacogenetic ("PGx") test results to guide treatment, including the burden of time and cost involved in trialling different medications and doses. The results of the pilot were compelling and validated outcomes from previous PGx studies.

Treating Physician's Assessment

Based on the treating physician's assessment, having the test results prior to initiating treatment would have led to the following benefits:



All 50 Patients:

- would have found a more effective treatment sooner
- would have avoided drug wastage/unnecessary drug costs



All but 1 Patient:

- would have avoided time dealing with side effects
- would have avoided (or had less) time off work due to lack of efficacy or medication side effects

Having the test results sooner could have saved patients (on average):



Patients spent an average of 170.4 weeks (>3.3 years) trialling

"Consider Alternatives" & "Consider Modified Approach" medications that were later discontinued due to lack of effect, side effects, or both.



Saved \$3,008* per patient (\$918/ year over 3.3 years)

*\$3,008 is based on an average weekly drug cost per drug of \$17.65 X average of 170.4 weeks spent trialling "Consider Alternatives" & "Consider Modified Approach" medications that were ultimately discontinued.



Projected ROI of testing prior to initiating treatment: >1,000%**

**Based on a retail price of \$299 per test, and avoidance of \$3,008 in wasted drug costs

Having access to test results sooner would have improved the treatment journey for **100%** of these patients & would have:

Resulted in a different treatment plan than was provided for **94%**



Been helpful for 100% of patients and "very or extremely helpful" in guiding treatment for 64%

Made a "very or extremely meaningful difference" for 74% of patients

Doc 454-6

Treating Physician's Feedback

"Having used the Inagene test on more than 50 patients now, it is my belief that every single chronic pain patient who a medication is being considered for use on, should have the Inagene test completed prior to drug initiation." He adds: "I look back at the patients we have followed for a number of years, with multiple drug trials and all the individual and societal costs from mental illness and chronic pain, who could have been stabilized on a regimen years earlier if we had the test; and wonder just how different their life could have been if we had this test ten years ago, and how much it is going to change how I do things going forward. At our clinic we are now routinely asking for every patient referred to us to have the test done upon arrival or after initial assessment."

Dr. Ron Whalen MD CCFP(EM) FCFP, Co-Medical Director of the PEI Pain Institute

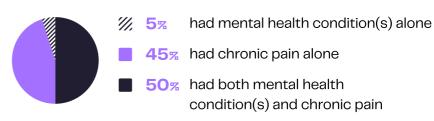
Patients In the Pilot

Patient Gender Breakdown:

35% Male







Patient Workplace Experience:



64% of patients in the pilot had missed work because of sub-optimal treatment or medication side effects.

Overview Of Pilot Results

Changes Made to Treatment Based on the Inagene Test Results:

66% had at least one medication switched to another

42% had a **new medication added** to their treatment plan

34% had at least 1 medication removed from their treatment plan

8% had a dosage change made to at least one medication



had a change made to their treatment plan as a result of the insights provided by their Personalized Insights™ test

Indicating that, even after years of "trial and error", the majority had still not found optimal treatment.

Validated Past Patient Experiences:

For 94% of patients, their Inagene results helped explain prior experiences with medications.

6.1 "Consider Alternatives" or "Consider Modified Approach" drugs were trialled & subsequently discontinued on average.

98% had previously trialled (and later discontinued) medications that were incongruent with their genetic profile.