

IMPACT Newsletter

8th Edition January 2017

Introduction

The goal of the IMPACT newsletter is to provide you with exciting news, updates and study milestones. Without your referrals and continued support, we would not have been able to reach the high number of patients who have already received pharmacogenomic testing through IMPACT. Thank you for all of your support!



Meet the IMPACT team! Visit us at www.im-pact.ca.

IMPACT Study Milestones

- The IMPACT study was initiated in June 2011 after receiving \$19.5 million from the Ontario Ministry of Research and Innovation, the CAMH Campbell Family Mental Health Research Institute and Larry & Judy Tanenbaum.
- In May 2012, the first IMPACT patient was consented.
- In January 2013, for the first time in Canada, patients were able to receive genetic testing at their family physician's office; this was made possible through the IMPACT study.
- In November 2013, CAMH and Assurex Health signed a partnership agreement to bring the benefits of a personalized approach to psychiatric treatment to more Canadians.
- Beginning in November 2014, patients enrolled in the IMPACT study were tested using the Assurex Health proprietary technology, GeneSight Psychotropic.
- Since May 2012, 2,371 clinicians have completed the clinic registration process.

Important Study Reminders

Participants are asked to provide the following information at each stage of the study:

Baseline (Upon Consent)

- Symptoms
- Medication history
- Side effects

Week 4

- Symptoms
- Current medications
- Side effects

Week 8

- Symptoms
- Current medications
- Side effects

Symptomology is gathered through scales such as BDI, PANSS, YMRS and GAD-7 depending on the patient's diagnosis. Please discuss with your patients the importance of completing these scales at each time point of the study.

Referral Process

Referring a patient to the IMPACT study is easy!

To refer a patient to the study, please download and complete the appropriate referral form below. The completed form is sent to the IMPACT team via email impact@camh.ca or fax 416.979.4666:

- [IMPACT Adult Referral Form \(16+\)](#)
- [IMPACT Adolescent Referral Form \(7-15\)](#)

A Research Analyst from CAMH will then contact your patient to walk him/her through the informed consent process in order to enroll him/her in the study. If you have any questions regarding the referral process please contact us at 416.535.8501 ext. 30240. Patients who are over 16 years of age and not diagnosed with schizophrenia (as PANSS must be conducted in person) can consent online. The patient will then be prompted to choose between providing the buccal swabs in person at CAMH or having a sample collection package sent to their address (via FedEx) at no charge.

Access to genetic reports

Once the buccal swabs are received by the laboratory and processed, the GeneSight test reports can either be faxed (in black and white) or accessed online (in colour with print option). An email address for the clinician must be provided on the referral for online access.

GeneSight reports are available within 36 hours of buccal swab receipt!

Testimonials

Please let us know if you would be interested in sharing your experiences with pharmacogenomic testing. We are always interested in feedback — reach us by email at impact@camh.ca.

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IMPACT Study Status

As of January 2017, the IMPACT Study has enrolled 8,063 patients for pharmacogenomics testing in total, averaging over 264 patients enrolled per month in 2016.

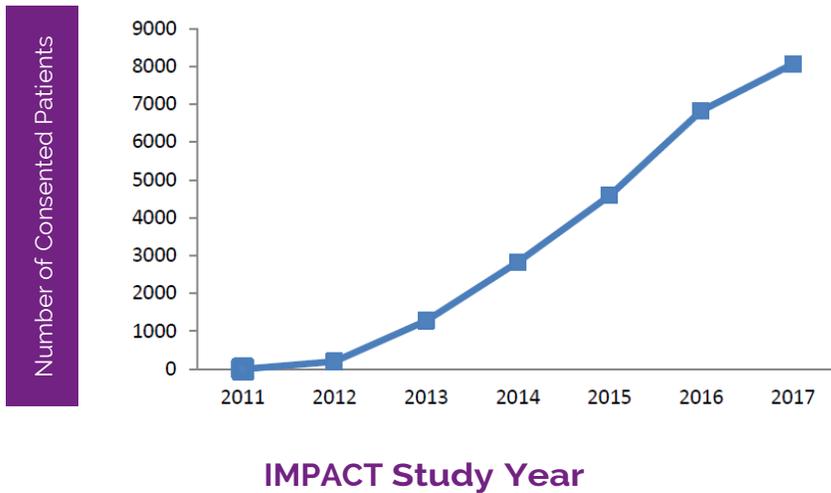


FIGURE 1 Number of patients consented to participate in the IMPACT Study.

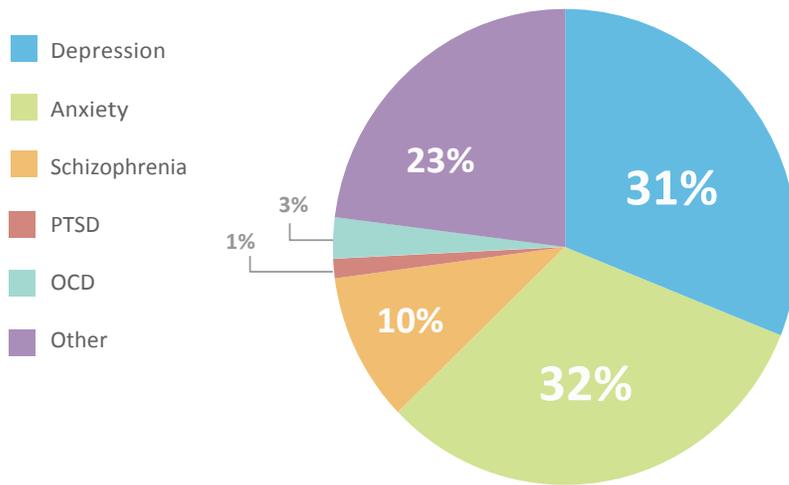


FIGURE 2 Percentage of IMPACT study participants with a primary diagnosis of depression, anxiety, schizophrenia, PTSD, OCD or other. Patients may have a secondary diagnosis

Gene Spotlight

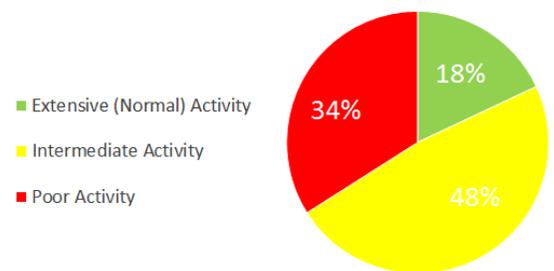
Drug metabolizer HTR2A

HTR2A, located on chromosome 13, encodes the serotonin 2A receptor, one of the principal excitatory receptors in the serotonin system. Individuals who carry the -1438A>G polymorphism may experience increased rates of adverse events with some SSRIs. Associations between variants in the serotonin 5-HT2A receptor gene, HTR2A, and adverse events or drug efficacy (clinical response, remission) in psychiatric patients have been assessed in 39 studies.

Drug response/remission

The relationship between HTR2A variants and clinical response or remission to antidepressant or antipsychotic medication therapy was examined in 27 studies, while only 24 were included in the overall analysis. A significant relationship was found in nine of these and 18 studies assessed the most frequently studied polymorphisms 1438G/A (rs6311) or T102C (rs6313). Seven of these studies (39%) showed a significant association of either genotype and drug response or remission, including poor negative symptom response to aripiprazole, better response to fluvoxamine and SSRIs, paroxetine and fluoxetine, citalopram, and risperidone. Nine studies assessed rs6313 (T102C) and only three found a significant association with the patient response, remission, or relapse, with T/T allele associated with less improvement. Four studies explored the rs6311 genotype (1438G/A) and the association was significant in two studies, with the G/G homozygous allele predicting more citalopram remitters and better SSRI response, particularly to fluvoxamine. Fifteen studies investigated antidepressants with five being significant, while eight studies investigated antipsychotics and four were significant with improved clinical outcome. (Altar et al., 2013).

HTR2A Phenotype Frequency*



*Phenotype frequency is based on internal Assurex Health data of over 100,000 tested patients.

Webinars

Assurex Health offers educational webinars that provide treatment information about GeneSight technology and pharmacogenomics in general. If you are interested in participating, register by visiting: <http://genesight.com/educational-webinars>.

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GeneSight[®] Psychotropic

GeneSight Psychotropic is a clinically validated, laboratory developed test that analyzes how eight genes may affect a patient's metabolism and response to 33 Health Canada approved antidepressants and antipsychotics. GeneSight testing includes genotyping of six pharmacokinetic genes from the cytochrome P450 family and two pharmacodynamic genes related specifically to the serotonin system. The GeneSight test differs from other pharmacogenomic testing in that it is combinatorial and integrates information from Health Canada approved labels, published literature and clinical pharmacology with the patient's genetics to predict his/her response and tolerability to a medication. For more information, visit: www.genesight.com.

In The News

Events: Bell Let's Talk on 25, January 2017

Every year, the Bell Let's Talk initiative promotes awareness of mental health and anti-stigma campaigns, such as Clara Hughes's Big Ride for Bell Let's Talk, and helps raise funding for community care and access, research, and workplace initiatives.

On January 25, for the seventh year in a row, Canadians joined in advocating for mental health through Bell's annual Bell Let's Talk Campaign. Through millions of interactions on Twitter, Instagram, Snapchat and via text message, as well as large numbers of long distance calls and Facebook video views, the campaign raised \$6,586,250.50 towards mental health initiatives in Canada. CAMH was among the many active contributors during the campaign, sharing new stories such as:

[LetsKeepTalking](#) and [Let's Talk](#), but Let's Listen too, two blogs by active members of CAMH's National Youth Advisory Committee (NYAC).

<http://www.camhblog.com/2017/01/25/letskeep talking/>

<http://www.camhblog.com/2017/01/25/lets-talk-but-lets-listen-too/>

"[Let's listen](#)" – a CAMH Peer Support Worker describes his role, an article talking about the role a Peer Support plays at CAMH.

http://www.camh.ca/en/hospital/about_camh/newsroom/CAMH_in_the_headlines/stories/Pages/CAMH-Peer-Support-Worker-describes-his-role.aspx

For More Information

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