MaRS EXCITE Case Study:

BresoDx® and the Road to Health System Adoption

In Ontario, approximately
130,000
PSG tests were conducted in 2008

The cost to the province was approximately
$40 million
in Ontario alone

In the U.S., it was estimated that in 2000, approximately
800,000
drivers were involved in sleep apnea-related motor-vehicle collisions

Up to
85%
of individuals with sleep apnea are still undiagnosed

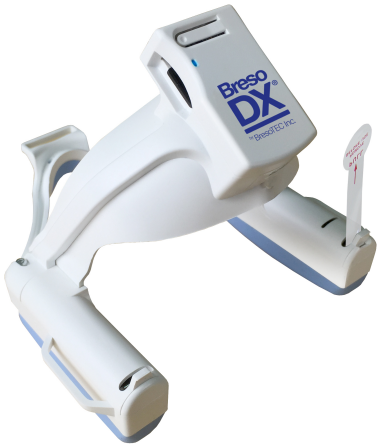
269
patients consented to participate in this trial

Problem: Sleep Apnea

- Sleep apnea is the repetitive cessation of breathing during sleep
- It causes excessive daytime sleepiness & increase risk of stroke, heart failure, hypertension
- The low rate of diagnosis is mainly due to the lack of access to, and the substantial cost and inconvenience of, undergoing overnight testing in a sleep laboratory (also known as Polysomnography (PSG)), as well as the complexity of the existing portable monitor (PM) home sleep testing devices

Technology Solution: BresoDx®

BresoDx® is a cordless, battery operated device that patients can use at home, in their own bed. BresoDx® is an accurate, easy-to-use and cost-effective home sleep test for physicians, patients and health care providers.



Process: Robust Evaluation

Objectives

The purpose of this study was to evaluate the accuracy, effectiveness and cost-effectiveness of BresoDx® PM against the gold reference standard PSG and other Type IV PMs as available in the literature.

Methods

This evaluation was completed by the THETA collaborative, one of the leading academic HTA centres in Canada that is affiliated with the UHN and University of Toronto. Evaluation through the MaRS EXCITE program incorporated:
1) A pragmatic multi-centre Randomized Controlled Trial (RCT);
2) An economic evaluation contextualized to the Ontario health system; and
3) A systematic review with a meta-analysis of existing literature

Outcomes

After reviewing the study results, the EXCITE Management Board recommended the BresoDx® technology to the Ontario Ministry of Health and Long-Term Care (MoHLTC) for adoption into the health system.

Collaboration between key stakeholders in the EXCITE process resulted in the analysis of system barriers that could impact the diffusion of the BresoDx® technology throughout the system. A final report outlined how adoption and implementation could be rolled out, with the ultimate goal of expediting uptake of BresoDx®.

The MoHLTC is planning a demonstration project to evaluate real world use in the Ontario health system.

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What is MaRS EXCITE?

MaRS EXCITE acts as a facilitator to help health technology innovators expedite the adoption and reimbursement of disruptive, breakthrough health technologies through a single, harmonized pre-adoption process, removing the requirement for post-market, evidence-based analysis. It works to break down the barriers between the health system and technology innovators to effect health system change and provide faster access to these technologies for patients.

Process Pathway

01 APPLICATION PHASE

02 CONSULTATION & DESIGN PHASE

03 EVALUATION PHASE

04 ADOPTION PHASE

At the end of the EXCITE program, companies will have:

a robust evidence package, that can be used for both regulatory or licensing approval *and* reimbursement and purchasing reviews

experience connecting with the health system and relevant feedback concerning conditions needed for successful adoption

commitment from the Ontario Ministry of Health and Long-Term Care to streamline the adoption of the technology into the health system (provided study results are positive)