myVisionTrack® for monitoring degenerative eye disease

TECHNOLOGY

myVisionTrack®, developed by Vital Art and Science Inc., is a home vision monitor for patients with degenerative eye diseases such as age-related macular degeneration (AMD) and diabetic retinopathy (or diabetic macular oedema, DME). It is an application for use on handheld electronic devices such as a smartphone or tablet. It is intended to allow patients already diagnosed with AMD, DME or another maculopathy, or those at high risk of developing a maculopathy, to quickly and easily monitor their own vision.

myVisionTrack® uses a proprietary shape discrimination hyperacuity (SDH) test, which displays four circles on the screen. One of the circles will be different from the others and is displayed at a random position each time. With the device held upright at arm's length, the patient is asked to cover one eye and select the different circle on the screen. As the test goes on, the difference between the circles becomes more subtle. The test takes approximately 10 minutes or less to complete.

Patients that are already diagnosed with maculopathy complete the test at least twice a week. The results are automatically uploaded, stored and compared with prior test results. If a significant change in the result is detected, myVisionTrack® will alert the patient’s doctor, who is then able to review the data through a secure clinician’s portal on the company’s website.

myVisionTrack® is currently being used for research in the UK and the company expect a CE mark in late 2014. They are planning to launch myVisionTrack® in the UK for private and NHS use in 2015. myVisionTrack® is FDA approved for use in the US.

POTENTIAL FOR IMPACT

The company claim that a key innovative feature of myVisionTrack® is the SDH test, which has been clinically validated to highly correlate with visual acuity testing administered in a clinic. Although patients with maculopathy can experience renewal of disease activity at any
time, they are not always able to detect this, even with the use of paper Amsler grids which can be used by patients to check for signs of maculopathy. Therefore, the company claim that there is a need for a quick and accurate test to allow patients to monitor vision function from home.

For degenerative eye diseases, it is important to begin treatment as early as possible to prevent vision loss and blindness. More timely treatment is expected to improve vision function and the length of time that therapy is effective, especially with anti-VEGF therapies, which are given to help stop disease progression. By monitoring vision function in high risk patients or in those already diagnosed, myVisionTrack® may improve patient outcomes by allowing earlier detection of disease onset or renewal of activity, which in turn will enable earlier treatment. It also allows clinicians to monitor the patient’s response to treatment.

If proven to be effective, myVisionTrack® will provide a test that allows patients and clinicians to accurately and easily monitor disease progression from home in between check-ups. It may also reduce the number of visits needed to see a doctor. However, it may not be suitable for all patients as a smartphone or tablet is needed and barriers to using technology may apply to some patients.

**EVIDENCE**

**PUBLISHED PAPERS AND ABSTRACTS**


**COMPLETE UNPUBLISHED STUDIES**

There were no complete unpublished studies identified for myVisionTrack®.

**ONGOING STUDIES**


**INFORMATION FROM**

This Alert is based on information from the company and a time-limited internet search.