

SBRI Healthcare

Case Study



Company: PolyPhotonix Ltd

Competition: Improving the Health of People with Long-Term Conditions

Innovation: Noctura 400 treatment for Diabetic Retinopathy

Total award: £1,458,158 awarded across Phase 1, Phase 2 & Phase 3 development stages

Savings to the NHS: Estimated at £1 billion per annum

Product availability: Q4 2014

Overview

PolyPhotonix, a bio-photonic research and development company, has developed a light therapy sleep mask, Noctura 400, for the prevention and treatment of Diabetic Retinopathy. Designed as a monitored home-based therapy, the technology offers a patient centric, non-invasive treatment that can be delivered at a fraction of the cost of the current interventions; laser photocoagulation surgery or intraocular drug injection.



Trials of Noctura 400 have shown that eye disease can be reversed with significant results after as little as six months. Approximately 30 clinics around the country are trialling the product including Moorfields eye hospital. It is anticipated that Noctura 400 will receive NICE approval by the end of 2015.

Diabetes is the most common cause of preventable adult blindness in the developed world. Treating it costs the NHS about £1bn a year. Patients who develop retinopathy are currently treated at a cost of as much as £10,000 per patient for each eye. By contrast, the PolyPhotonix sleep mask costs £250 for 12 weeks' treatment. With 3.5m diabetes sufferers in Britain, the technology has the potential to save the NHS hundreds of millions of pounds a year.

Patient perspective

The sleep mask is designed to be worn at night and delivers a precise dose of light therapy during a patient's normal hours of sleep. The Pod contains the light sources which, when worn, emit light into the eyes through closed eyelids. Nothing is inserted into the eyes – the treatment is non-invasive. The mask is programmed to administer the correct dose of light each night as part of a continuing therapy.



Patient comment

“There is no contest that I would choose the mask over the laser treatment. It is easy to use and removes any traumatic experience that occurred when having my eyes lasered. I still wear the mask at night and would encourage anyone with diabetes and suffering from retinopathy to do the same.”

Economic impact

Following successful patient trials, the sleep mask is now commercially available with sales for 2015/16 estimated to be in excess of £3 million. PolyPhotonix’s workforce is expected to triple over the next two years to 60 employees directly created as a result of SBRI funding. Approximately £2 million of additional investment has also been secured by the company.

Based on company forecasts and health/financial modelling, the estimated saving to the NHS is in the region £1billion per year for treatment of diabetic retinopathy and other eye conditions.

“The biggest impact of SBRI funding has been in accelerating the commercial side of the business and to considerably increase the pace of activity with the NHS. Driving adoption of the technology will both save the NHS budget and improve the quality of life for the patient.”

Richard Kirk, CEO, PolyPhotonix

Visit: www.polyphotonix.com