Alpha IMS for blind retinitis pigmentosa

TECHNOLOGY

The Alpha IMS is a sub-retinal implant developed by Retina Implant AG. It is a new treatment option for patients with retinitis pigmentosa who are blind, to help restore vision. Retinitis pigmentosa is one of the most common forms of inherited retinal degenerations.

Alpha IMS is a 3×3² mm wireless microchip that features a 1500 pixel resolution. The microchip captures light and in turn stimulates the optic nerve, which delivers visual signal data to the brain. The patient is able to see a black and white image. To adjust the brightness, a dial is fitted just behind the ear and the Alpha IMS is powered by a wireless pocket battery.

Alpha IMS is not currently available in the UK and is not yet CE marked. The company expect to receive a CE mark by the end of 2013 with launch in EU countries shortly after.

POTENTIAL FOR IMPACT

There is currently no cure for retinitis pigmentosa and no treatments that slow or stop the condition from gradually worsening over time. According to the company, a distinct advantage of the Alpha IMS is that, unlike other similar available devices (e.g. Argus II), it does not rely on an external camera. Instead, light is detected inside the eye, enabling the patient to look around by moving their eyes rather than the head. The company also state that the Alpha IMS has a higher resolution and more visual clarity than other similar devices allowing the patient to see fine details such as facial expressions.

The company have estimated that the Alpha IMS system will cost around 100,000 EUROs (around £87,000). The treatment will require post-surgical follow-up visits to an eye surgeon. Replacement batteries and staff training will also be required. These costs are additive, although the company state that savings could be made as guide dogs and other visual/mobility aids will not be necessary. If this technology is effective in restoring some degree of vision, it may bring great benefits to the patient, carers and society, for instance, allowing continuous employment.
EVIDENCE

PUBLISHED PAPERS AND ABSTRACTS


ONGOING STUDIES


INFORMATION FROM

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