

PRODUCT

Portable, Disposable Kinetic Perimetry Device

INDICATION

Kinetic Perimetry Testing

VALUE PROPOSITION

- Low-cost alternative to the current floor-mounted systems.
- No technician required to administer the test.
- Can enable at-home testing to be performed with virtual visits for preauthorizations for eyelid surgery.

DEVELOPMENT STAGE

40-patient study at Cleveland Clinic demonstrated equivalence to the current standard of care.

INTELLECTUAL PROPERTY

Provisional application filed.

CONTACT INFORMATION

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Portable, Disposable Kinetic Perimetry Device

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PROBLEM

A visual field test, known as perimetry, measures an individual's entire scope of vision, that is, their central and peripheral vision. Kinetic perimetry utilizes a moving stimulus to map the individual's field of vision. This is an important test for individuals suffering from ptosis (upper eyelid droops over the eye) to determine if they qualify for eyelid surgery. Current testing involves floormounted and expensive capital pieces of equipment (e.g. Goldmann perimetry machines) and requires a medical office visit with a technician to administer the test. This incurs significant operating and labor costs and poses a hurdle to obtaining the insurance authorization necessary for surgery. The Goldmann perimetry machine is also out of production, necessitating the use of old models for which replacement parts are becoming scarce. Alternatives such as static perimetry machines incur more expense and labor costs.

SOLUTION

Cleveland Clinic inventors have developed a light shield worn and operated by the patient to self-administer perimetry testing inside or outside the office setting. The shield incorporates a dot of ambient light ("stimulus") that moves as the device is rotated. The patient manipulates the device until they see the light source and repeats for both a normal eyelid position and a retracted eyelid position. In a 40-patient study, results using the light shield were shown to be equivalent to those generated using a Goldman perimetry machine.

