



USE CASES

quantusGL

Medical Imaging with Artificial Intelligence

quantusGL — Support for Glaucoma Screening and Detection

Product Description

quantusGL is a non-invasive, fast, and easy-to-use test for detecting glaucoma based on fundus images of the retina. Its technology is based on the quantitative analysis of the texture of the fundus image obtained through ocular retinography. By analyzing and classifying the image, quantusGL determines the probability of glaucoma within minutes. It has been designed with a clear focus on the general population and is intended as a tool for glaucoma detection, proving highly useful in screening patients with risk factors and in prioritizing waiting lists. It has a wide range of applications, from primary care clinics to ophthalmology or optometry units: the specialist, who is always trained, classifies the images using visual patterns, and quantusGL provides a percentage indicating the risk of glaucoma.

Epidemiological Context

Glaucoma is one of the leading causes of irreversible blindness worldwide, and in Spain it affects more than half a million people, particularly those over the age of 40. Because the disease is asymptomatic in its early stages, it is estimated that about half of all cases remain undiagnosed, which delays the start of treatment and increases the risk of irreversible damage to the optic nerve. Early detection through fundus imaging is key to slowing the progression of the disease, but the limited availability of specialists and long waiting lists hinder widespread screening of the at-risk population.

Use Cases

CU-GL-01: Prioritization of Cases for Ophthalmological Evaluation

Stakeholders	Ophthalmologist, ophthalmology unit with a list of fundus images pending review
Main Workflow	When faced with a high volume of retinal images awaiting review, quantusGL automatically analyzes each image and provides a glaucoma risk prediction, allowing the ophthalmologist to prioritize the list of cases and review those with the highest risk first.
Key Benefit	Reduces the time to review high-risk cases. Optimizes the specialist's time by focusing the review on the most relevant studies.
Success Metrics	Average time to review prioritized cases, reduction in loss to follow-up, and agreement between the prediction and the specialist's assessment.

CU-GL-02: Screening Support in Primary Care Settings

Stakeholders	Primary care physician, patient over 40 years of age undergoing a routine checkup
Main Workflow	During a primary care visit, a fundus photograph is taken of the patient, and quantusGL analyzes the image, providing a glaucoma risk percentage that the physician uses to assess the need for referral to a specialist.
Key Benefit	Extends glaucoma screening to a healthcare setting other than an ophthalmology clinic. Supports the referral decision with objective data.
Success Indicators	Rate of appropriate referrals, screening coverage among at-risk populations, agreement with the specialist's assessment.