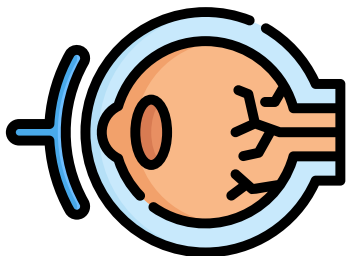


Ophthalmological disease prognosis

Individualised long-term prognosis of patients with idiopathic optic neuritis

Benefit

Removing unnecessary patient anxiety due to prognosis uncertainty. Better utilisation of medical and funding resources.



Context

Idiopathic optic neuritis is an inflammation of the optic nerve with unknown cause. Patients present with blurry vision. Some patients recover their vision while others eventually go blind. The condition can take up to two years to settle and it is not easy for doctors to predict the eventual course of the condition for a specific patient, leading to multiple revisits and significant patient anxiety from the uncertainty.

Methodology

Patient details, including patient histories, ophthalmic measurements, blood-lab results, certain demographic details and eventual patient outcome, were used to train a model to predict the eventual outcome of patients with this condition. Variables that were found to be unhelpful with regard to predicting the final result were excluded so that predictive variables could be easily identified for further research to explain their link to the condition's outcome.

Results

99.8%

accuracy predicting patient outcomes based on information collected during the first ophthalmic consultation