

FirstSight Clinical Trial Results Summary

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Refractive error remains the leading cause of visual disability throughout the world. Cost and the need for specialized training are the leading barriers to detection and treatment of refractive error in the developing world.

FirstSight is a novel technique designed to detect and treat refractive error that overcomes both of these barriers. No specialized eye training is needed to accurately measure and treat the refractive error. Furthermore, FirstSight glasses are available for just a few US dollars per pair.

The international division of ophthalmology at the University of Nebraska Medical Center recently conducted a clinical trial to determine the accuracy and effectiveness of the FirstSight technique. We performed a head-to-head blinded study comparing the effectiveness of the FirstSight technique vs. manifest refraction in determining and treating refractive error.

Our initial trial of 40 adults measured the following variables: uncorrected visual acuity (UCVA), autorefraction (AR), manifest refraction (MR), manifest corrected visual acuity (MCVA), FirstSight refraction (FSR), and FirstSight visual acuity (FSVA). Our initial results are impressive.

1. For patients within the target range of -6.00 to + 6.00 with less than or equal to -1.25 diopters of cylinder, the FSR is as accurate as MR in determining refractive error.
2. In terms of visual acuity, 100% of the patients falling in the target range without underlying eye disease limiting their best corrected vision were corrected to 20/20 or better with both MR and FSR.

In summary, FirstSight is highly effective in detecting and correcting refractive error and delivers results comparable to the gold standard of manifest refraction. This technique holds promise in its ability to reliably and cost-effectively treat refractive error, even in the hands of non-ophthalmic personnel.

Sincerely,



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Effectiveness of Low-Cost Glasses Distribution in Nebraska, Guatemala, Ghana and Cambodia

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Introduction: Uncorrected refractive error has been documented as the leading cause of visual impairment globally with enormous social and economic outcomes, limiting educational opportunities for children and, consequently, translating to poverty. The purpose of this study is to demonstrate the effectiveness of low-cost First Sight® eyeglasses by providing low-cost treatment of refractive error.

Methodology: Sixteen medical students from Project CURA, a medical student-run organization at Creighton University School of Medicine, performed vision screening in health clinics and schools in Nebraska, Guatemala, Ghana, and Cambodia under the direction of OKL, an ophthalmologist. Demographic information was obtained including age, gender, education, occupation, and medical history. Refractive error was determined with a trial lens flipper and subjects were fitted with First Sight® eyeglasses. Subjects' visual acuity were confirmed with the Snellen's chart and the tumbling E chart.

Results: Seventy-eight individuals (mean age of 12 and 44 in children and adults respectively) were fitted with distance prescription glasses supplied by First Sight®. A hundred percent of the participants showed improved visual acuity. Of those patients, 64% (n=50) were female and 36% (n =27) were male. In Guatemala,

the most common condition associated with refractive error was a family history of visual difficulties.

Conclusion: Individuals benefited from the use of low-cost equipment and distribution of First Sight® eyeglasses costing less than \$4.50 to correct visual acuity.