

## The human medical ethics review sheet

Application Date: 04/15/2026

Study number: KY202632

Title of project: Nomogram Optimization for Astigmatism Precision Correction of Corneal Refractive Correction	
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Type of Review Requested: <input checked="" type="checkbox"/> Application project <input type="checkbox"/> After the approval of the project <input type="checkbox"/> The extension project <input type="checkbox"/> Entrusted project	
Project sources: None	
Submit a review of information <input checked="" type="checkbox"/> Experimental scheme <input checked="" type="checkbox"/> Informed consent <input type="checkbox"/> Other information	
<p><b>The abstract of the research involving human ethics review:</b></p> <p>To address the challenge of precise astigmatism correction in corneal refractive surgery under multi-factor coupling constraints, this study develops an astigmatic coaxial decomposition method based on geometric optical theory, which simplifies astigmatism from a two-dimensional to a one-dimensional variable. A nomogram prediction model for surgical design parameters is then established to formulate an optimized strategy for precise astigmatism correction. Specifically, the study aims to: (1) evaluate the accuracy of astigmatism correction using the proposed decomposition method; (2) identify key influencing factors through characteristic parameter and mapping relationship analyses; and (3) construct a clinically validated nomogram prediction model, with prospective assessment of safety, efficacy, and predictability, to provide theoretical and clinical support for advancing precision in corneal refractive surgery.</p>	
<p><b>Opinion of the Ethics Committees:</b></p> <p>After ethical review, this research project complies with the Ministry of Health's "Measures for Ethical Review of Biomedical Research Involving Human Subjects" and the relevant provisions of the Declaration of Helsinki regarding biomedical human subject research. Approval is hereby granted for the conduct of this study. This approval document is valid only for the currently submitted project.</p> <p style="text-align: right;">2026.4.16</p> <p style="text-align: right;"><b>The Medical Ethics Committees of Tianjin Eye Hospital</b></p>	