# New Work Item Proposal: Eyecare Measurement Templates

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## On Behalf of WG-09 Ophthalmology

## Introduction/Scope

The IHE Eyecare domain defined (as a draft for trial implementation) templates, context groups, and coded vocabulary for various key measurements in ophthalmology. WG-09 has determined that those should be formalized in the DICOM Standard.

These templates may be used in SR documents, or for structured content in an Encapsulated PDF object.

WG-06 reviewed this work as a Change Proposal and recommended it move forward as a Supplement.

## Limitations of Current Standard

While DICOM has standardized the ophthalmic image formats, it has not yet standardized the measurements derived from those images.

Several existing IODs record measurements directly produced by various refractive devices (autorefraction, lensometry, keratometry, etc.) that do not produce images. The measurements of this work item are instead derived from analysis of images, typically retinal optical coherence tomography (OCT) images.

## Description of Proposal

Templates, context groups, and coded vocabulary for eyecare measurements will be added to the Standard, informed by the content of the Key Measurements in Encapsulated PDF Option in the IHE Unified Eye Care Workflow (U-EYECARE) Profile. Specifically, the templates will cover measurements related to:

* Visual Field
* OCT Optic Disc
* OCT Retinal Nerve Fiber Layer (RNFL)
* OCT Macula Thickness
* OCT Ganglion Cell Layer (GCL)
* Corneal Topography
* Endothelial Cell Count

Some vocabulary may be submitted to LOINC for assignment of codes.

## Parts of Standard Affected

This work item will affect Part 16 of the DICOM standard.

## Resources & Timeline

WG-09: Ophthalmology will develop the draft, based on the prior work of the IHE Eyecare domain ([IHE Eye Care Technical Framework Supplement - Key Measurements in DICOM Encapsulated PDF](https://www.ihe.net/uploadedFiles/Documents/Eye_Care/IHE_EyeCare_Suppl_Key_Measurement_PDF.pdf)). A first draft will be available by November 2024.

It is anticipated that 2-4 hours of WG-06 meeting time will be required on each of four occasions during 2024 and 2025 to review and approve first draft, public comment, letter ballot, and final text versions.