

# Ultra-wide Field Angiography for Diabetic Retinopathy

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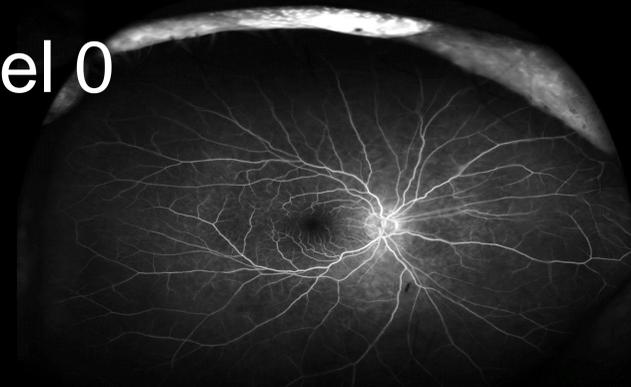
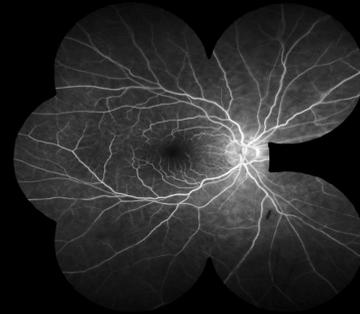
## Purpose

To investigate the effectiveness of ultra-wide field angiography in evaluating diabetic retinopathy versus traditional 7 field angiography

## Methods

CPT codes were used to generate a report of all Diabetic patients who had received a fluorescein angiogram with the Optos ultra-wide field imaging system since January 2014. A stencil was then made as a cut-out to overly the ultra-wide images and show only the areas that are included in the standard 7 field collage. A diagnosis was made using this 7 field collage stencil and then again with the stencil removed. Thus 7 field collage was directly compared to ultra-wide imaging for the same fluorescein angiogram image. Images were then classified into four categories: **Level 0** images had no difference in information, diagnosis, or treatment basis between ultra-wide and 7 field. **Level 1** images revealed additional information with the ultra-wide image, but no change in diagnosis or treatment. **Level 2** images revealed additional information that altered the diagnosis but did not change the treatment plan. **Level 3** images revealed information that changed both the diagnosis and the treatment plan.

### Level 0



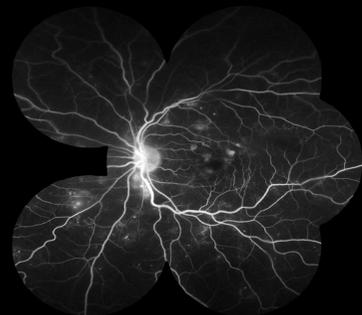
### Level 1



### Level 2



### Level 3



## Results

**Level 0:** 21/376 (5.7%)

**Level 1:** 294/376 (78%)

**Level 2:** 36/376 (9.6%)

**Level 3:** 25/376 (6.6%)

366 total photos. The ultra-wide field angiography provided additional information in 94.3% of the photos and changed the diagnosis and treatment in 16.2% of patients

## Conclusions

Ultra-wide field angiography has a clear benefit when monitoring diabetic retinopathy and should be the standard of care. Ultra-wide field angiography provides valuable information of the retinal periphery that is not seen in standard 7 field imaging and can change the diagnosis and treatment plans of patients.