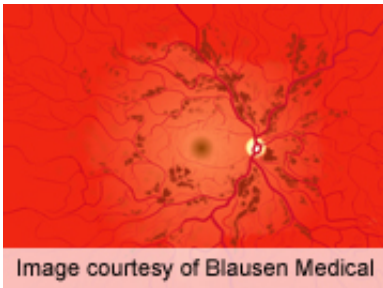


# Ultrawide field retinal imaging improves telehealth evaluation

August 21 2013

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Implementation of non-mydriatic ultrawide field retinal imaging in a telemedicine program significantly reduces the ungradable rate in evaluation of patients for diabetic retinopathy and diabetic macular edema, compared to the use of non-mydriatic fundus photography, according to a study published online Aug. 12 in *Diabetes Care*.

(HealthDay)—Implementation of non-mydriatic ultrawide field retinal imaging (UWFI) in a telemedicine program significantly reduces the ungradable rate in evaluation of patients for diabetic retinopathy (DR) and diabetic macular edema (DME), compared to the use of non-mydriatic fundus photography (NMFP), according to a study published online Aug. 12 in *Diabetes Care*.

Paolo S. Silva, M.D., from Harvard Medical School in Boston, and colleagues retrospectively evaluated images (2,170 UWFI and 1,633 NMFP) for DR and DME at a centralized reading center with certified graders.

The researchers observed no significant differences between patients imaged using NMFP and UWFI with regards to age, diabetes duration, gender, ethnicity, or insulin use. For DR, the ungradable rate per patient was 2.9 percent for UWFI and 9.9 percent for NMFP; the corresponding numbers for DME were 3.8 and 8.8 percent. The median image evaluation time per patient was reduced from 12.8 to 9.2 minutes with UWFI. There was increased identification of patients with DR (38.4 versus 33.8 percent) and vision-threatening DR (14.5 versus 11.9 percent) with UWFI compared to NMFP.

"In a standardized DR ocular telehealth program, non-mydriatic UWFI reduced the ungradable rate by 71 percent (to less than 3 percent) and reduced image evaluation time by 28 percent," the authors write.

One of the two Optos P200MA instruments used in the study was provided by Optos.

**More information:** [Abstract](#)  
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