COMMENT ON LEESE ET AL.

Progression of Diabetes Retinal Status Within Community Screening Programs and Potential Implications for Screening Intervals. Diabetes Care 2015;38:488–494

Focke Ziemssen, Lydia Marahrens, and Daniel Roeck

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There is a discussion about the optimum screening interval for the timely detection of diabetic retinopathy (DR) (1). A low rate of progression in patients without any preexisting retinopathy leads to the hypothesis that extending screening intervals can generally reduce total costs. Unfortunately, the British Four Nations Diabetic Retinopathy Screening Study Group's recent article on the evaluation of DR progression has severe limitations (1).

1. When adhering to just the broad categorization of "referable" and "treatable" disease, the exact stage of DR remains nontransparent (1). This is a major drawback, as the most appropriate treatment might change in the future when new studies' data emerge or when the prediction of the individualized risk might improve. The authors best illustrate the restriction, describing that even within the U.K. there is no consensus between England and Scotland on the need for the specialist physicians' examinations. The team of authors mixed up the different stages of DR within the vague "composite terms." Necessarily, the data have to be stratified as per the type of diabetes.
2. The statement by Leese et al. that "... usually only patients with proliferative retinopathy require immediate treatment at the first visit to an ophthalmology clinic" is just incorrect. The authors ignore the recent evidence that a lag in the treatment of diabetic macular edema (DME) cannot be fully compensated for later on. At the very least, irreversible impairment has been proven by trials using a crossover design. Treating DME 1 year later cannot achieve the same level of improvement as immediate treatment. The most recent research characterizing anti–vascular endothelial growth factor (anti-VEGF) studies shows a strong ceiling effect with baseline acuity determining the final function (2). Thus, early therapy is very likely more cost-efficient—similar to neovascular macular degeneration therapy (3).
3. When systematically screening the literature, the bottom line of both of the most comprehensive reviews includes warnings against the high risks of prolonging the intervals between eye examinations for all patients (4,5). In addition, there is a large degree of heterogeneity regarding the screening methods (photographs, recall system, telemedicine, funduscopy), as access to the health system differs greatly. It is very likely that those staying away from free and promoted screenings have a lower level of adherence and health awareness (6). Therefore, the study might underestimate the rate of progression by excluding a considerable number of people that have inadequate metabolic control. We kindly ask that the issue of nonappearance be precisely addressed in future publications.
4. The exact screening protocol and the imaging modality used play an important role in the sensitivity of the screening. The Diabetes Control and Complications Trial (DCCT) has already discovered a considerable rate of DR (22%) using angiography in individuals who only have had diabetes for a short time, but there was no evidence of DR on color photographs (7). How can the use of modern imaging devices such as ultrawidefield imaging or ocular coherence tomography further increase the ability to detect clinically significant stages of DR (8)?

We are very grateful that responsible British scientists, such as Simon Harding from Liverpool, are planning prospective trials with randomization for different screening intervals before drawing far-reaching conclusions.

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Centre for Ophthalmology, University Eye Hospital, Tübingen, Germany

Corresponding author: Focke Ziemssen, focke.ziemssen@med.uni-tuebingen.de.

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