

# Addressing Technical Failures in a Diabetic Retinopathy Screening Program [Letter]

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## Dear editor

We have read the paper written by Ian Gerard Brennan et al on Addressing Technical Failures in a Diabetic Retinopathy Screening Program.<sup>1</sup> We congratulate all authors who have provided important information regarding Diabetic Retinopathy (DR), which is a cause of blindness, through screening using digital retinal photography. DR is the most common cause of vision loss caused by damage to the small blood vessels in the retina. Regular eye examinations are essential to detect this disease to increase the chances of effective treatment.<sup>2</sup> Imaging technology for DR screening has advanced rapidly over the past few decades and produces images with higher resolution and contrast with less time, effort and invasiveness. A few, including optical coherence tomography (OCT), fluorescein or angiography and OCT oximetry which can provide dynamic and functional information regarding the current condition of the retina.<sup>3</sup>

The study conducted by Ian Gerard Brennan et al used a screening protocol and DR assessment from patient data (patient demographics, screening results, and other factors) in the National Diabetic Retina Screening database for 2018 and 2022 for analysis.<sup>1</sup> The method used was appropriate with the objectives to be achieved, however, to carry out screening on DR patients, the following must be taken into account: (1) The examination method must be appropriate to the screening area, and the DR assessment system must be applied systematically and uniformly; (2) performed in an ophthalmology clinic; (3) staff conducting screening must be accredited; (4) screening programs must comply with relevant national quality assurance standards; (5) use uniform standards to determine optimal risk-based inspection intervals; (6) technological infrastructure must be in place to ensure that high-quality images can be stored securely to protect patient information.<sup>4</sup>

In this research, Ian Gerard Brennan et al found that the type and duration of diabetes, dilated pupil status, and the presence of a lens on the device used for screening were significantly related to technical failure (TF).<sup>1</sup> Therefore we recommend that try Multimodal Imaging Techniques and Potential Future Directions which uses several imaging methods to check the quantity of retinal thickness and precise mapping of retinal topography. This is useful in assessing retinal thickness in non-clinically significant macular edema and clinically significant macular edema.<sup>5</sup>

In conclusion we agree that it is important to carry out comprehensive interventions aimed at reducing TF rates and increasing the effectiveness of Diabetic Retina Screening programs to determine the significant impact of patient factors, especially cataracts, on TF rates.<sup>1</sup> As additional information, it is important to know that retinal imaging is a key component in the diagnosis and management of DR patients and a multimodal imaging approach is key, as multiple imaging modalities including dye-based fluorescein and optical coherence tomography angiography can provide clinically important complementary information.<sup>3</sup>

## Disclosure

All authors report no conflicts of interest in this communication.

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