

Enhancing care for patients with diabetic eye disease: post-pandemic landscape and innovation

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Diabetes is associated with the development of ocular complications, including glaucoma, cataract, diabetic retinopathy (DR), and diabetic macular edema (DME). DR is the leading cause of blindness among working-age adults; the most common cause of vision loss from DR is DME. Of the estimated 420 million people with diabetes mellitus (DM) worldwide, over 21 million have DME.

DR/DME is an important public health problem that severely impacts the quality of life of patients, their families, and their carers. Early treatment can reduce the risk of vision loss and be cost effective for society. However, the COVID-19 pandemic caused delays in screening appointments and disruptions to disease management, resulting in a shift in established methods and accelerating a transition to a more patient-centred approach to care with reduced time at the clinic.

Most imaging modalities used for screening and diagnosis of DR/DME are non-invasive and require only a few seconds to perform. These modalities are now widespread across optometrists in the UK who initiate most referrals into secondary care. However, images require grading and decision making can be uncertain in these settings, which has led to the proposed integration of artificial intelligence to increase the speed and accuracy of diagnostics and referral.

While intraocular anti-vascular endothelial growth factor (anti-VEGF) treatment has transformed the way in which DME has been treated, opportunities exist to improve upon these therapies. Patient-reported priorities include attending fewer appointments and receiving fewer treatments to achieve the same vision results. Several therapeutics are currently in development that aim to address these patient needs, by improving treatment durability whilst maintaining long-term visual gains, and addressing the multifactorial nature of the disease.