Evaluating digital diabetic retinopathy screening in people aged 90 years and over.

A.S.Tye¹, H.M.Wharton¹, J.M.Gibson¹/², M.Clarke¹, A.Wright¹, A.Mills¹, P.M.Dodson¹/²

¹Departments of Diabetes and Ophthalmology, Heartlands Hospital, Birmingham, UK
²School of Health and Life Sciences, Aston University, Birmingham, UK

Aims: The English National Screening Programme determines that all people with diabetes aged 12 and over should be screened annually for diabetic retinopathy (DR) until they die. This study aimed to evaluate digital DR screening in patients aged 90 and over to establish whether it is appropriate to cease screening at age 90.

Methods: A retrospective analysis of 200 randomly selected patients with diabetes aged 90 and over within the Birmingham and Black Country Screening Programme.

Results: 179 (90%) patients attended screening at least once after turning 90 years of age. To date, the mean number of screens per person 90+ was two (range 1–6) and the mean age of the first of these screens was 91 years (range 90–98 years). 133 (74%) were put on annual recall after their first screen in their 90’s, of which 58% had no visible DR bilaterally. 38 (21%) were referred to ophthalmology - 35 (92%) for non-DR reasons and three for maculopathy. The majority of patients (61%) were referred for unassessable images. Cataract was the most common reason for this and accounted for 50% of all referrals to ophthalmology. Of the 133 patients put on annual recall, 75 (56%) were screened at least once more. In terms of level of DR, assessability or other ocular pathologies, seven improved, 36 remained stable and 29 deteriorated. Of the latter, 18 patients were referred to ophthalmology; one of these for DR. The remaining five patients became unsuitable for digital screening due to physical or mental disability.

Conclusions: Patients with diabetes aged 90 and over are at low risk of sight threatening DR and annual screening in this age group may be unnecessary. However, annual screening does provide opportunistic identification of non-DR eye conditions which may improve patient care, but is this a duty of the screening programme?