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

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Introduction
The NHS Diabetic Eye Screening Programme determines that all people with diabetes aged 12 and over should be screened annually for diabetic retinopathy (DR) until they die.

The aim of this study was 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
  - mean age of first screen 90+ = 91 years (range 90-98 years)
  - mean number of screens per person 90+ = 2 (range 1-6)

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 unjustified.

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?

- DR referrals – all 3 patients were referred for maculopathy. None were urgent and 1 received treatment (focal laser).
- The majority (61%) of patients were referred for unassessable images.
- Cataract was the most common cause and accounted for 50% of all referrals to ophthalmology.
- Of the 133 patients put on AR after their first screen 90+, 75 (56%) patients were screened at least once more.
- 3 of these patients became unsuitable for digital screening due to physical or mental disability.

Progression in terms of level of DR, assessability or other ocular pathologies: n=72

- Of the 29 patients who deteriorated, 18 were referred to ophthalmology, one of these for DR (R2).