NHS Diabetic Eye Screening Programme
Overview of patient pathway, grading pathway, surveillance pathways and referral pathways

Public Health England leads the NHS Screening Programmes
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Public Health England, Wellington House, 133-155 Waterloo Road, London SE1 8UG
Tel: 020 7654 8000 www.gov.uk/phe
Twitter: @PHE_uk Facebook: www.facebook.com/PublicHealthEngland

About PHE Screening

Screening identifies apparently healthy people who may be at increased risk of a disease or condition, enabling earlier treatment or better informed decisions. National population screening programmes are implemented in the NHS on the advice of the UK National Screening Committee (UK NSC), which makes independent, evidence-based recommendations to ministers in the 4 UK countries. The Screening Quality Assurance Service ensures programmes are safe and effective by checking that national standards are met. PHE leads the NHS Screening Programmes and hosts the UK NSC secretariat.

PHE Screening, Floor 2, Zone B, Skipton House, 80 London Road, London SE1 6LH
www.gov.uk/topic/population-screening-programmes
Twitter: @PHE_Screening Blog: phescreening.blog.gov.uk
Prepared by: Maggie Crockett, interim programme manager for NDESP
For queries relating to this document, please contact: phe.screeninghelpdesk@nhs.net

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NHS Diabetic Eye Screening Programme

Diabetic retinopathy is one of the most common causes of sight loss among people of working age. Diabetic eye screening is a way of detecting the condition early before someone notices any changes to their vision. Detecting retinopathy early means treatment can prevent it getting worse.

Screening is offered once a year to everyone with diabetes aged 12 and over. The screening test involves examining the back of the eyes and taking digital photographs of the retina.

Prior to implementation of the ‘common pathway’ for diabetic eye screening between April 2013 and March 2014, there was little consistency between local screening programmes. There was variation in grading and referral processes, as well as commissioning in terms of what activities were part of screening and what activities were part of diagnostic and treatment services.

Important elements of the common pathway for diabetic eye screening pathway include:
- provision of primary, secondary and arbitration grading
- only retaining annual recall patients in the screening service
- management of patients who:
  - require more frequent monitoring (such as 3 or 6 monthly) or screening in pregnancy in surveillance clinics outside the routine screening pathway
  - have unassessable images in slit lamp biomicroscopy surveillance clinics
- reviewing all images with referable disease by the clinical lead or designated senior grader to decide a referral outcome grade that provides the referral outcome

The common pathway will enable many R1M1 patients to be kept in a surveillance service delivered by the screening programme without the need for a referral. A consultant ophthalmologist with medical retina experience will supervise patients within these surveillance clinics according to local protocols and based on best evidence.

The common pathway clarifies circumstances in which patients can be suspended or excluded from screening. Patients under care of ophthalmology for diabetic retinopathy should be suspended and not be invited for annual screening. The local programme’s clinical lead or a designated clinician will assess patients who are considered to have an ungradable image according to the NHS Diabetic Eye Screening Programme’s (NDESP’s) exclusions and suspensions guidance.

The introduction of features-based grading at the same time as the common pathway emphasised the relationship between features and screening outcomes.

The changes to the grading criteria include:
- defining the R2 pre-proliferative level
- defining groups of exudates
- introduction of a stable treated R3 grade (R3s)
• simplification of image quality into adequate and inadequate
Patient pathway for retinal screening

1. Identify cohort to be invited
   - New referral
   - On existing patient list

2. Patient eligibility confirmed
   - Patient only excluded in line with policy

3. Invite and inform

4. Screening event

5. Grading pathway
   - Digital image unobtainable
     - Yes: Arrange repeat
     - No: Patient may be suitable for digital image on another date
   - No: Patient excluded or suspended according to policy

6. Did not attend

7. Grading pathway
   - R3A R3S R2 M1
   - Ungradable
   - Antenatal
   - Other pathology

8. Referral outcome grade
   - Refer to SLB Call/Recall surveillance
   - Refer to digital surveillance
   - Refer to HES for management of DR
   - Return to routine digital screening recall
   - Other pathology
     - Follow local protocol/refer back to GP

9. Non referrable grade R0 M0 R1 M0

10. No referrable DR or other pathology (not antenatal)
    - Refer to digital surveillance

11. Communicate to GP
12. Patient suspended from routine digital screening
13. Results/outcome letters to patient and GP and other diabetes health professional

Additional notes:
- Pregnant women requiring additional screens
Referral pathway for digital surveillance

Referral outcome
Digital Surveillance and Antenatal

Call/Recall system
Digital Surveillance

INVITATION FOR
Digital Surveillance

Record clinical
findings and
management plan

Digital Surveillance
clinic
Attendance for
imaging

Did not attend
Re-invite x1

If DNA x2 seek follow
fail safe enquiries with
GP

Close failsafe and either:
• Reappoint if indicated
by failsafe return
• Return to annual
screening or 12
month digital
surveillance

Patient unsuitable for
Photography, SLB or
treatment
Excluded from screening
in line with policy

Return to routine digital
screening recall

Refer to SLB

Refer to HES for
management of DR

Return to Digital
Surveillance

Patient suspended from routine digital screening

Results / outcome letters to patient and GP
Referral pathway for slit lamp biomicroscopy surveillance

Referral outcome SLB

Call/Recall system SLB

Close failsafe and either:
- Reappoint if indicated by failsafe return
- Return to annual screening in SLB surveillance

SLB Clinic Attendance

INVITATION For SLB

If DNA x2 seek failsafe enquiries with GP

Did not attend
Re-invite x1

Not corrected

Follow local protocol – refer back to GP for management of pathology

Other pathology (e.g. cataract) noted

Not corrected

Cataract / Pathology corrected

One eye screenable by imaging, 2nd eye unscreenable by any method

One eye screenable by imaging, 2nd eye screenable only by SLB

Record clinical findings and management plan

Patient unsuitable for Photography, SLB or treatment. Excluded from screening in line with policy.

Return to routine digital screening recall

Return to SLB Call/Recall

Refer to HES for management of DR

Results / outcome letters to patient, GP and diabetes health professional

Patient suspended from routine digital screening
Referral pathway for management of diabetic retinopathy

Referral outcome grade from screening: refer to HES for management of DR

Referral from Digital Surveillance to HES for management of DR

Referral from SLB for management of DR

Referral received by HES

Call / Recall HES systems

Appointment made within treatment timelines

Patient assessed HES Management plan in place

Management under HES

Return to digital surveillance

Patient suspended from routine digital screening

NHS England commissioned and responsibility of Screening Programme

CCG commissioned and responsibility of HES
Pathway for pregnant patients

Single common grading pathway

Graders must grade the minimum required numbers of image sets per year to maintain expertise.

The agreed hierarchy for ‘eye for which action is most urgently required’ is:

R3AM1 > R3AM0 > R3SM1 > R2M1 > R1M1 > R2M0 > U > R3SM0 > R1M0 > R0M0