

South Manchester Grading Protocol

Retinopathy (R)

Action

Level R0 None

Annual photographic screen

Level R1 Background Retinopathy

Annual photographic screen

Any of:

- MAs or intra-retinal haemorrhages anywhere
- Any exudate(s) in the presence of other features of DR and not falling into the definition of maculopathy
- Venous loop
- Any number of CWS in the presence of other non-referrable features of DR

Level R2 Pre-proliferative Retinopathy

Routine referral to HES

Any of:

- Venous beading
- Venous reduplication
- Multiple large, deep, round blot haemorrhages
- IRMA

Level R3a Active Proliferative Retinopathy

Urgent referral to HES

Any of:

- NVD
- NVE
- New pre-retinal or vitreous haemorrhage
- New pre-retinal fibrosis +/- tractional retinal detachment
- Rubeosis iridis
- Reactivation in a previous stable R3s eye

Level R3s Stable Proliferative Retinopathy

Annual photographic screen

Evidence of peripheral scatter laser AND a photograph taken at or shortly after discharge from the HES plus any of the following:

- Stable pre-retinal fibrosis
- Stable fibrous proliferation
- Stable R2 features
- R1 features

Maculopathy (M)

Level M0 None

Annual photographic screen

Level M1

Routine referral to HES

Any of:

- hard exudates (single or multiple) within 1 disc diameter (DD) of the centre of the fovea.
- group of hard exudates within the macular area (*see overleaf*)
- Retinal thickening within 1DD of the centre of the fovea (if stereo available)
- any MA or haemorrhage within 1DD of the centre of the fovea only if associated with unexplained best VA of 6/12 or less (if no stereo)

Photocoagulation (P)

Level P0 None

Level P1

- Previous macular or peripheral laser treatment.

Unclassifiable (U)

Level U

- | | | |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • Ungradable | <p><i>Reasons:</i> Field position unacceptable
Clarity unacceptable
No photo</p> | <p><i>refer to S/L biomicroscopy
refer to S/L biomicroscopy
if no good reason refer for S/L</i></p> |
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Definition of Acceptable Image Quality

General Statements:

- 2 x nominal 45° fields per eye.
- Assessment of field position and image quality is per eye.
- Images are only to be utilised if the grader is confident the quality is sufficient.
- All grading performed by trained and accredited staff.

A combined assessment of field position and image quality is made in the software as follows:

Adequate

- **Macular image:** centre of fovea >2DD from edge of image & vessels visible within 1DD of centre of fovea
AND
Disc image: all of optic disc >2DD from edge of image & fine vessels visible on surface of disc

Inadequate

*Failure to meet definition of **adequate** above
UNLESS referable diabetic retinopathy visible anywhere in the eye*

Notes

If the field qualities are mixed, i.e one is good and one is adequate, then the overall quality is at the lowest level – adequate in this case. So one good and one inadequate would give an overall result of inadequate.

Some large discs may meet the 'good' standard yet also be closer than 2DD to the edge, which is normally 'unacceptable'. In these cases, 'good' takes precedence.

Any image with referable retinopathy visible is adequate by definition.

If fine vessels are visible within 1DD of the centre of the fovea on any image available and fine vessels are visible on the surface of the disc on any image available then the eye can be graded for R&M levels. In other words it is permissible to “jigsaw” a series of images to achieve an overall adequate view.

Definition of macular area

A circle of radius fovea to temporal edge of disc and centred on the fovea.
[The Vector sizing tools can be used to pull out an appropriately sized circle in the same way they are used to create 1 and 2 DD sized circles.]

Definition of a group of exudates

A group of exudates is an area of exudates that is greater than or equal to half the disc area and this area (of greater than or equal to half the disc area) is all within the macular area.