Ophthalmology Macular Pathways

Lancashire Medicines Management Group NHS

- Age related Macular Degeneration
- Diabetic Macular Oedema
- Macular Oedema secondary to Central Retinal Vein Occlusion
- Macular Oedema secondary to Branch Retinal Vein Occlusion
- CNV associated with pathological myopia
- Vitreomacular Traction

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Age-related Macular Degeneration (AMD)

Diagnostics to
- Logmar visual acuity/ Amsler Grid
- Slit Lamp Biomicroscopy
- Fluorescein angiography - optional
- OCT scanning
- ICG* angiograpy – optional

Outside of NICE criteria or Dry AMD → Eye Clinic Liaison Officer

Treatable wet AMD 6/12 – 6/96

1st line sequential use is not supported; a business case should be submitted if this is required

1st Line

Drug choice takes into account cost effectiveness and patient preference

Ranibizumab TA 155

If all of the following apply:
- the best-corrected visual acuity is between 6/12 (0.3) and 6/96 (1.2)
- there is no permanent structural damage to the central fovea
- the lesion size is less than or equal to 12 disc areas in greatest linear dimension
- there is evidence of recent presumed disease progression (blood vessel growth, as indicated by fluorescein angiography, or recent visual acuity changes)

Intra-vitreal injection monthly for 3 months
1 injection per month until max visual acuity is achieved (usually 3 or more) then monitoring and treatment intervals should be determined by the physician. The treatment interval should be extended by no more than 2 weeks at a time.
PAS must be used.

Or

Aflibercept TA 294

If all of the following apply:
- the best-corrected visual acuity is between 6/12 (0.3) and 6/96 (1.2)
- there is no permanent structural damage to the central fovea
- the lesion size is less than or equal to 12 disc areas in greatest linear dimension
- there is evidence of recent presumed disease progression (blood vessel growth, as indicated by fluorescein angiography, or recent visual acuity changes)

Monthly appointments for intra-vitreal injection for 3 months THEN
Regular intra-vitreal injection alternate months. Assess visual acuity at 12 months
PAS must be used.

Or

Photodynamic Therapy (PDT) TA 68

Only in classic with no occult subfoveal choroidal neovascularisation (CNV) and best-corrected visual acuity 6/60 (1.0) or better.
PDT can be useful for specific patients with a rare variant of AMD and those patients with needle phobias

OCT used to assess response to treatment.
STOP treatment if a person's vision gets worse and there are changes inside the eye which show that treatment isn't working.

If not responding consider doing ICG angiography and PDT

2nd Line

Photodynamic Therapy (PDT) TA 68

TA 68 says PDT is an option. It does not mention second line after failure of anti-VEGF. It is being proposed here for cases that fail who may have a rare variant of AMD.

Only in classic with no occult subfoveal choroidal neovascularisation (CNV) and best-corrected visual acuity 6/60 (1.0) or better.
PDT can be useful for specific patients with a rare variant of AMD

*better tolerated and better visualisation but not available at all centres

Diabetic Macular Oedema

Prevention: management of blood sugar, BP, cholesterol and smoking cessation
83% Type II diabetes progressing to diabetic retinopathy
29% progressing to Diabetic Macular Oedema
17% progressing to Clinically Significant Macular Oedema

Diagnostics
- Logmar visual acuity/ Amsler Grid
- Slit Lamp Biomicroscopy
- Fluorescein angiography
- OCT scanning
- ICG angiograpy – optional
- Fundus autofluorescence – useful for accessing previous laser

Untreatable → Eye Clinic Liaison Officer

Treatable

1st Line

Ranibizumab TA 274

If the central retina thickness is 400 micrometres or more when treatment is started.
Intra-vitreal injection monthly for 3 months
1 injection per month until max visual acuity is achieved (usually 3 or more) then monitoring and treatment intervals should be determined by the physician. The treatment interval should be extended by no more than 1 month at a time.
Usually 7 4 2 pattern of injections.

1st line or 2nd line sequential use is not supported; a business case should be submitted if this is required

Or

Aflibercept TA 346

If the central retina thickness is 400 micrometres or more when treatment is started.
Intra-vitreal injection monthly for 5 months, followed by 1 injection every 2 months
After the 1st 12 months, the treatment interval may be extended based on visual and anatomic outcomes and should be determined by the physician.

Or

OCT used to assess response to treatment

Macular Laser photocoagulation

If no centre involvement or centre involvement with no vision loss > 78 letters

2nd Line

If no improvement with previous therapy

Fluocinolone TA 301

Recommended as an option for treating **chronic DMO** that is insufficiently responsive to available therapies if, used in an eye with an intraocular (pseudophakic) lens **and** supplied with the discount agreed in the patient access scheme. (£5,500 less discount).
NICE have strict criteria for chronic DMO. 36 month duration, but may be repeated after 12 months if deteriorates.

Or

1st/2nd Line

Dexamethasone TA 349

Recommended as an option If to be used in an eye with an intraocular (pseudophakic) lens **and** the DMO does not respond to non-corticosteroid treatment, or such treatment is unsuitable.
Single implant, but may be repeated after approximately 6 months if there is decreased vision (with or without an increased retinal thickness) with recurrent or worsening diabetic macular oedema.

Macular Oedema (MO) secondary to Central Retinal Vein Occlusion

Diagnostics
- Logmar visual acuity
- OCT scanning
- Clinician assessment
- Fluorescein angiography - optional

untreatable → Eye Clinic Liaison Officer

treatable

OCT used to assess response to treatment

1st line sequential use is not supported; a business case should be submitted if this is required

1st Line

Ranibizumab TA 283

Ranibizumab is recommended as an option for treating visual impairment caused by macular oedema secondary to Central Retinal Vein Occlusion if the manufacturer provides ranibizumab with the discount agreed in the patient access scheme.
Intra-vitreal injection monthly for 3 months
1 injection per month until max visual acuity is achieved (usually 3 or more) then monitoring and treatment intervals should be determined by the physician.
If no response after 3 months STOP

Or

Aflibercept TA 305

Aflibercept solution for injection is recommended as an option for treating visual impairment caused by macular oedema secondary to central retinal vein occlusion only if the manufacturer provides aflibercept solution for injection with the discount agreed in the patient access scheme. Monthly appointments to assess visual acuity AT SAME TIME
Monthly appointments for intra-vitreal injections until stable for 3 months.
Ongoing need for treatment should be reviewed.
(3 - 12 x £816 less discount)
If no response after 3 months STOP

Or

Dexamethasone TA 229

Dexamethasone intravitreal implant is recommended as an option for the treatment of macular oedema following central retinal vein occlusion
Not for young patients or patients with glaucoma . May be helpful for patients who don't wish to attend every month.
Single implant.
May be repeated at 6-monthly intervals (usually) up to a maximum of 6 implants (1 - 6 x £870)

Macular Oedema (MO) secondary to Branch Retinal Vein Occlusion

Diagnostics
- Logmar visual acuity
- OCT scanning
- Clinician assessment
- Fluorescein angiography - optional

untreatable → Eye Clinic Liaison Officer

treatable

1st Line

Ranibizumab TA 283 (central oedema) Or Aflibercept TA 409 (central oedema) Or Focal Laser Photocoagulation (off centre oedema)

2nd Line

OCT used to assess response to treatment

Dexamethasone TA 229

Ranibizumab is recommended as an option for treating visual impairment caused by macular oedema following branch retinal vein occlusion only if treatment with laser photocoagulation has not been beneficial, or when laser photocoagulation is not suitable because of the extent of macular haemorrhage **and** only if the manufacturer provides ranibizumab with the discount agreed in the patient access scheme.
Intra-vitreal injection monthly for 3 months
1 injection per month until max visual acuity is achieved (usually 3 or more) then monitoring and treatment intervals should be determined by the physician. If no response after 3 months STOP

Aflibercept is recommended as an option within its marketing authorisation for treating visual impairment in adults caused by macular oedema after branch retinal vein occlusion, only if the company provides aflibercept with the discount agreed in the patient access scheme.
Monthly appointments to assess visual acuity
AT SAME TIME
Monthly appointments for intra-vitreal injections until stable for 3 months. Ongoing need for treatment should be reviewed.
(3 - 12 x £816 less discount)
If no response after 3 months STOP

Dexamethasone intravitreal implant is recommended as an option for the treatment of macular oedema following branch retinal vein occlusion when treatment with laser photocoagulation has not been beneficial, **or** treatment with laser photocoagulation is not considered suitable because of the extent of macular haemorrhage.
Not for young patients or patients with glaucoma . May be helpful for patients who don't wish to attend every month.
Single implant. May need interim visits to measure pressures.
May be repeated , usually at 6-monthly intervals, up to a maximum of 6 implants
(1 - 6 x £870)

CNV associated with pathological myopia

Diagnostics
- Logmar visual acuity/ Amsler Grid
- Slit Lamp Biomicroscopy
- Fluorescein angiography - optional
- OCT scanning
- ICG angiograpy – optional

1st Line

Ranibizumab TA 298

Ranibizumab is recommended as an option for treating visual impairment due to choroidal neovascularisation secondary to pathological myopia when the manufacturer provides ranibizumab with the discount agreed in the patient access scheme.
The treatment of visual impairment due to CNV should be determined on a patient by patient basis taking account of disease activity.
Many patients may only need one or two injections during the first year, while some patients may need more frequent treatment.
Follow-up visits can be combined with a treatment visit and would not incur any additional costs. However, there are occasions when follow-up visits are done without treatment.

Photodynamic therapy (Vertiporfin)

For subfovial if an anti-VEGF is unsuitable

Laser photocoagulation

For extrafovial and juxtafovial

Vitrectomy

Fovial translocation

For young people with large lesions

Vitreomacular Traction (VMT)

Diagnostics
- Fluorescein angiography - optional
- OCT scanning

GASS Biomicrosopic Stage

1a} 1b} 50% resolve spontaneously

2 **≥98% closure with early surgery (but waiting times)**

3 } 4 } Vitrectomy with fluid/gas exchange

1st Line

Ocriplasmin TA 297

Ocriplasmin is recommended as an option for treating vitreomacular traction in adults, only if: an epiretinal membrane is not present **and** they have a stage II full-thickness macular hole with a diameter of 400 micrometres or less **and/or** they have severe symptoms.
Single intravitreal injection at a dose of 0.125 mg (£2500 and administration £177)