

**South West London
Wet Age-related Macular Degeneration (wet AMD) Drug Pathway
Version 2.0**

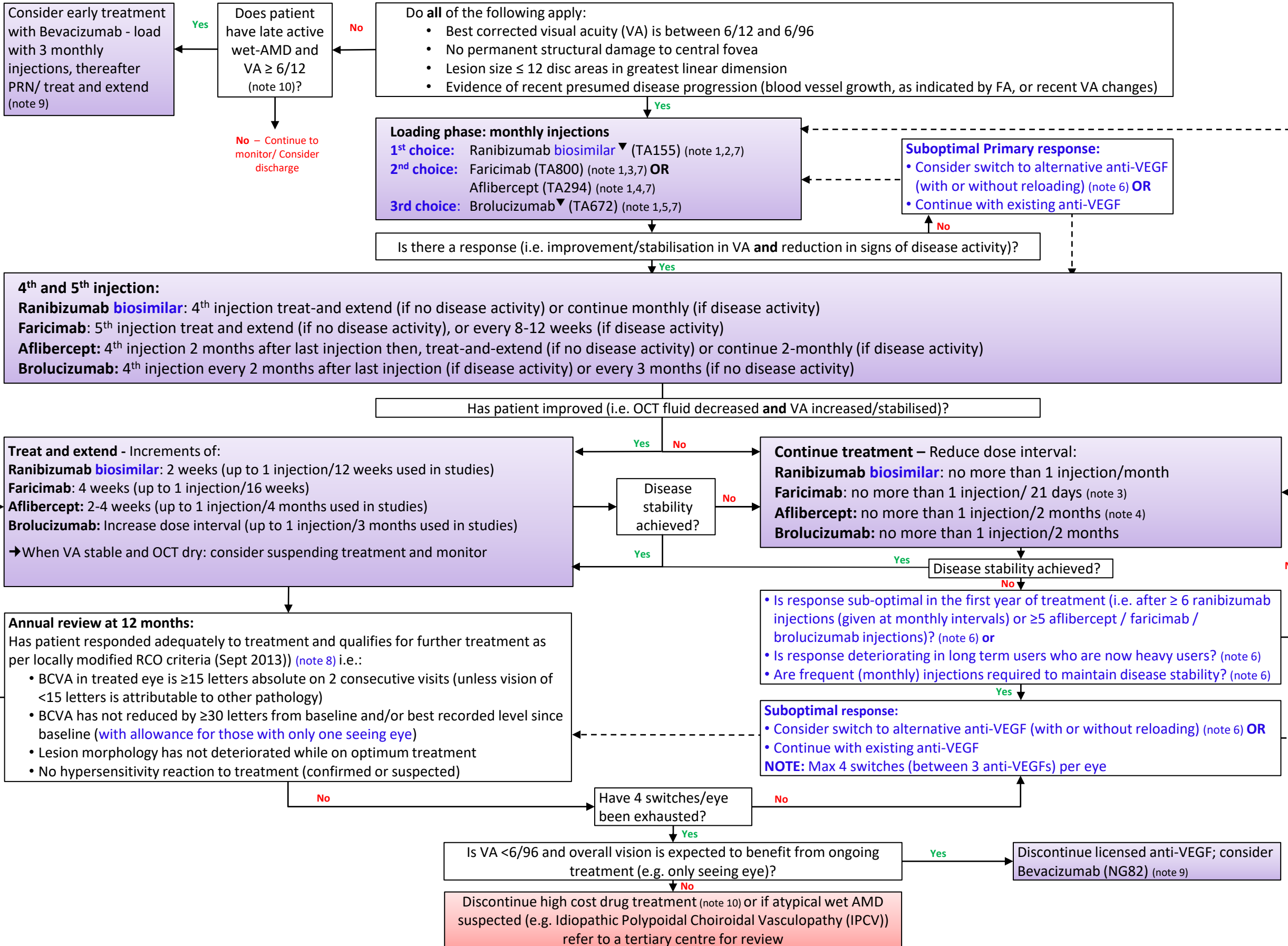
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Approved by: SWL Integrated Medicines Optimisation Committee
Date: 20/03/2024

SWL Drug Pathway - Wet Age-related Macular Degeneration Drug Pathway: High Cost Drug Pathway

Version 2.0 (based on NICE with local adaptations)



SWL Drug Pathway - Wet Age-related Macular Degeneration Drug Pathway: Notes

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Clinicians and commissioners should refer to the relevant technology appraisal and SPC for each drug for further information about eligibility and prescription

Note 1 – Drug Choice: If there is more than one NICE approved treatment available, NICE recommends a discussion between the responsible clinician and the patient about the advantages and disadvantages of each treatment (considering therapeutic need and likely adherence to treatment). If more than one treatment option is suitable, the least expensive will be chosen (taking into account administration costs, dosage and price per dose) unless an order of preference is stated in the TAs.

As agreed by the SWL Ophthalmology Medicines Optimisation Network, clinicians are advised to consider history of uveitis/systemic disorders associated with uveitis, vision in other eye, treatment in one or both eyes, patient consent. Where clinically appropriate, ranibizumab biosimilar should be considered as a 1st choice. Due to rare but serious side effects reported in clinical trials, SWL recommend brolocizumab as a 3rd choice option. It can be considered for treatment naïve eyes if there is a good clinical reason to justify use over ranibizumab/faricimab/aflibercept.

Note 2 – Ranibizumab: One injection/month until max visual acuity (VA) is achieved and/or no signs of disease activity i.e. no change in VA and in other signs and symptoms of the disease under continued treatment (3 or more monthly injections may be needed). Thereafter, monitoring and treatment intervals should be determined by the physician and should be based on disease activity, as assessed by VA and/or anatomical parameters. For treat-and-extend regimen, once max VA is achieved and/or no signs of disease activity, treatment intervals can be extended stepwise by up to 2 weeks at a time until signs of disease activity or visual impairment recur. Limited data on bilateral use of ranibizumab (including same-day administration) do not suggest an increased risk of systemic adverse events compared with unilateral treatment.^{6,7} Up to 1 injection/12 weeks has been used in studies.¹¹⁻¹³

SWL commission max 12 injections/year.

Note 3 – Faricimab: One injection/4 weeks for first 4 doses. Thereafter, use a treat-and-extend approach following an assessment of the individual patient's anatomic and visual outcomes. The dosing interval may be extended up to every 16 weeks, and extensions in increments of up to 4 weeks should be considered, based on the physician's judgement of the individual patient's anatomic and/or visual outcomes. If anatomic and/or visual outcomes change, the treatment interval should be adjusted accordingly, and interval reductions of up to 8 weeks may be implemented if deemed necessary. Treatment intervals shorter than 21 days between injections have not been studied.⁸

Currently SWL commission max 8 injections in year 1 and max 7 injections in subsequent years (subject to review).

Note 4 – Aflibercept: One injection/month for 3 consecutive doses, followed by 1 injection every 2 months. Based on the physician's judgement of visual and/or anatomic outcomes, the treatment interval may be maintained at two months or further extended using a treat-and-extend dosing regimen, where injection intervals are increased in 2- or 4-weekly increments to maintain stable visual and/or anatomic outcomes. If visual and/or anatomic outcomes deteriorate, the treatment interval should be shortened accordingly to a minimum of two months during the first 12 months of treatment. There is no requirement for monitoring between injections. Based on the physician's judgement the schedule of monitoring visits may be more frequent than the injection visits. Treatment intervals greater than four months between injections have not been studied. The safety and efficacy of aflibercept administered to both eyes concurrently have not been systematically studied. If bilateral treatment is performed at the same time this could lead to an increased systemic exposure, which could increase the risk of systemic adverse events.⁹ Aflibercept may be preferred for: vitrectomised eyes/requiring vitrectomy^{15,16} (due to long half-life¹³).

SWL commission max 8 injections in year 1 and max 6 injections in subsequent years.

Note 5 – Brolocizumab : One injection/month for first 3 doses. Treatment intervals may then be individualised based on disease activity as assessed by visual acuity and/or anatomical parameters suggested at 16 weeks (4 months) after treatment start. If no disease activity, consider treatment every 12 weeks (3 months). If disease activity, consider treatment every 8 weeks (2 months). Treatment intervals may be further individualised based on disease activity. The safety and efficacy of brolocizumab administered in both eyes concurrently have not been studied.¹⁰ Intra-ocular inflammation and ocular occlusive events were reported more frequently with brolocizumab than aflibercept (EMA requested close post-marketing monitoring).^{17,18}

SWL commission max 8 injections in year 1 and max 6 injections in subsequent years.

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Note 6 – Sequential Anti-VEGF Treatment: For patients with suboptimal response, SWL commission maximum four anti-VEGF switches per eye as specified in the pathway:

- Early switch (after 3 loading doses)
- Switchback in the first year of treatment
- Long-term users with diminishing response despite frequent re-treatments^{19,20,21,22}
- Long term heavy users who require frequent (e.g. monthly) ranibizumab injections to maintain disease stability.¹⁴

Sequential anti-VEGF treatment in the same eye is not commissioned for non-responders.

When switching anti-VEGF, reloading may not be required unless there is a significant break in treatment.¹⁴

There is limited uncontrolled evidence for switching between ranibizumab and aflibercept^{19,20,21,22} and for switching between brolocuzumab²³ or faricimab^{24,25} and other anti-VEGFs, but NICE acknowledges this practice.^{1,5} Clinical consensus considered it reasonable to allow a switch from another anti-VEGF to brolocuzumab and vice versa.¹⁴ All is subject to review in line with evidence.

Note 7 – Anti-VEGF Adverse Events: Systemic adverse events including non-ocular haemorrhages and arterial thromboembolic events have been reported following intravitreal injection of VEGF inhibitors and there is a theoretical risk that these may relate to VEGF inhibition. There is limited data on safety in the treatment of patients with prior history of stroke or transient ischaemic attacks or myocardial infarction within the last 6 months.⁹ See SPC for other adverse events.

If clinically appropriate, SWL commission ONE switch to alternative anti-VEGF if first anti-VEGF had to be stopped due to an adverse event (either before efficacy could be assessed (i.e. before 3 consecutive monthly injections) or in patients who are responding to first anti-VEGF treatment).

Note 8 – Cataract: Patients scheduled for a cataract operation within the next 3 months and if it is anticipated that vision will improve so that locally modified RCO discontinuation criteria no longer apply, may continue treatment.

Note 9 – Bevacizumab (not licensed for intravitreal use): If approved through Trust governance processes, bevacizumab may be considered after discussion of treatment options as suggested by NICE Guideline 82¹:

- In eyes with visual acuity of 6/96 or worse, consider anti-VEGF treatment for late AMD (wet active) only if a benefit in the person's overall visual function is expected (e.g. if the affected eye is the better-seeing eye).
 - Suggested dose: *prn*¹⁴ or treat and extend regime²⁸
- Anti-VEGF treatment for eyes with late AMD (wet active) and visual acuity better than 6/12 is clinically effective and may be cost effective depending on the regimen used.
 - Suggested dose: 3 x monthly injections then *prn*¹⁴ or treat and extend regime²⁸

This is supported by Court of Appeal upholding the lawfulness of NHS bevacizumab choice policy for wet AMD patients.²⁶

SWL commission max 12 injections/year.

Note 10 – IFR: Funding requests for treatment outside this commissioned pathway can be made via the Individual Funding Request (IFR) process to the relevant commissioning organisation (see swlimo.southwestlondon.icb.nhs.uk for IFR policy and application form).

SWL Drug Pathway – Wet Age-related Macular Degeneration Drug Pathway: Drug Information for Advanced Therapies

Version 2.0 (this list is not exhaustive; see summary of product characteristics (SPC) for full information)

Drug Class	Drug Name	Administration	Contra-indications	Special warnings and precautions	
Anti VEGF	Ranibizumab (0.5mg) Aflibercept (2mg) Faricimab (6mg) Brolucizumab (6mg)	Intravitreal route	<ul style="list-style-type: none"> Ocular or peri-ocular infection Severe intra-ocular inflammation Signs of irreversible ischaemic visual function loss in patients with retina vein occlusion Hypersensitivity to the active substance or to any of the excipients 	<ul style="list-style-type: none"> Females of childbearing potential to use effective contraception during treatment and for at least 3 months after last dose Glaucoma (poorly controlled; do not use while intra-ocular pressure is ≥ 30 mmHg) Intra-ocular surgery within the previous or next 28 days Retinal detachment or macular hole (discontinue treatment if rhegmatogenous retinal detachment, retinal break, or stage 3 or 4 macular holes develop, until repaired) Risk factors for retinal pigment epithelial tear Treatment-related decrease in best corrected visual acuity (BCVA) of ≥ 30 letters compared with last assessment 	<ul style="list-style-type: none"> History of myocardial infarction, stroke, TIAs Aneurysm and artery dissection in patients with or without hypertension Any modifiable risk factors (such as smoking and hypertension) should be reduced as much as possible. Patients should be monitored and treated for hypertension as required. Active systemic infection Diabetic macular oedema due to type 1 diabetes (limited information available) Diabetic patients with HbA1c over 12% (limited information available) Previous intravitreal injections Arterial thromboembolic events and non-ocular haemorrhage Brolucizumab only: intraocular inflammation and retinal vascular occlusive events occurred more frequently in the brolucizumab 3mg and 6mg groups than with the comparator 2mg aflibercept
Anti VEGF	Bevacizumab (unlicensed)	Intravitreal route	<ul style="list-style-type: none"> Hypersensitivity to the active substance or to any of the excipients Hypersensitivity to Chinese Hamster Ovary (CHO) cell products or other recombinant human or humanised antibodies. Pregnancy 	<ul style="list-style-type: none"> Taken from IV route of administration; unable to ascertain frequency or severity when administered via intravitreal route Females of childbearing potential should use effective contraception during treatment and for at least 6 months after last treatment Osteonecrosis of the jaw History of cardiovascular disease and uncontrolled hypertension (increased risk of cardiovascular events, especially in the elderly) History of hypertension (increased risk of proteinuria—discontinue if nephrotic syndrome) Aneurysm and artery dissection in patients with or without hypertension 	<ul style="list-style-type: none"> Increased risk of haemorrhage Increased risk of tumour-associated haemorrhage Intra-abdominal inflammation (risk of gastrointestinal perforation and gall bladder perforation) Risk factors for arterial thromboembolism Untreated CNS metastases Increased risk of fistulas (discontinue permanently if tracheo-oesophageal or grade 4 fistula develops) Elective surgery (withhold treatment and avoid for at least 28 days after major surgery or until wound fully healed)

SWL Drug Pathway - Wet Age-related Macular Degeneration Drug Pathway: References

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3. NICE TA800: Faricimab for treating wet age-related macular degeneration . 29 June 2022
4. NICE TA294: Aflibercept solution for injection for treating wet age-related macular degeneration. 24 July 2013
5. NICE TA672: Brolucizumab for treating wet age-related macular degeneration (including NICE resource impact report). 3 February 2021
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8. Vabysmo® (faricimab) Summary of Product Characteristics (SPC) <https://www.medicines.org.uk/emc/product/13741> Accessed 16/03/2023; last updated 22/12/2022
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SWL Drug Pathway - Wet Age-related Macular Degeneration Drug Pathway: Version control

Version 2.0 (based on NICE [with local adaptations](#))

Version number	Main amendments	Approval date
0	NICE TA155 and TA294	24 July 2013
1.0	<p>Include approved recommendations from South West London Ophthalmology Medicines Optimisation network meeting (13th March 2020 and 24th March 2021) including:</p> <ul style="list-style-type: none"> • Local agreement on drug choices • Local agreement on sequential treatment and switching between treatments • Incorporate treat and extend strategy • Include bevacizumab for patients falling outside anti-VEGF NICE criteria • Include safety advice for brolocizumab 	15 Dec 2021
2.0	<ul style="list-style-type: none"> • Add faricimab (NICE TA800) • Add drug information for advanced therapies • Update format 	20 Mar 2024

Date of next review: 20 03 2026 (or earlier if indicated)