# National Ophthalmology Database Audit

Third Annual Report of the UK Age-related Macular Degeneration (AMD) Audit

**Patient Summary 2025**

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## What is AMD and how is it treated?

The macula is the central part of the retina, the lining of the back of the eye. The macula is responsible for our central vision and gives fine detail and colour vision, enabling us to read, watch TV and recognise faces. Macular disease can affect people of any age, and the risk of getting the most common form, known as age-related macular degeneration or AMD, increases with age. At age 60 around one in every 200 people has AMD. However, by the age of 90 it affects one person in five.

AMD is the biggest cause of sight loss in the UK, affecting more than 700,000 people. The wet or neovascular form of AMD develops when new blood vessels grow into the macula. These blood vessels leak fluid and blood into the macula and cause scarring. Common problems include difficulty reading, dark spots in the vision, distortion or bending of straight lines and difficulty adapting when moving from dark to light environments.

The wet form of AMD can be treated if caught early. Medicines used to stop the growth of the abnormal blood vessels help to stabilise vision in most people and many find that their sight improves. The best results are achieved with early treatment. This involves a course of injections into the eye and often continues over several years.

## What are the aims of the NOD AMD Audit?

Clinical audit is a way to find out if healthcare is being provided effectively and in line with agreed targets and standards. It lets treatment providers and patients know when their service is doing well and if any improvements are needed. The aim of clinical audit is to improve both the way that care is delivered and the outcomes of treatment for patients.

The AMD Audit looks at the way that treatment of wet AMD is provided across the UK. The audit enables providers of AMD treatment to compare local performance with other units, national averages and standards. It is expected that these will drive changes in the way that treatment is delivered, reduce variation between providers and encourage all centres to adopt practices observed in the “best” centres.

## What data is included in the Third Annual report?

The focus of the third annual report is on patients starting treatment for wet AMD in one or both eyes in the 2022 NHS year (01 April 2022 to 31 March 2023). All providers of NHS-funded AMD treatment were invited to take part and to submit routinely collected healthcare data for analysis. Results after the first year of treatment were available from 73 centres in England, Northern Ireland, Scotland, Wales and Guernsey. For clinical audit, the data is anonymous and individual patients cannot be identified.

## Key findings

The analysis includes data from more than 25,500 eyes and almost 23,500 patients starting treatment in the 2022 NHS year.

The average age when treatment was started was over 80 years and 60% of people (6 in 10) treated were women. Just over 40% of people (4 in 10) started treatment within a month of referral and the initial phase of treatment with three injections at monthly intervals was completed within ten weeks in 65% (2 in every 3) of eyes.

The most frequent number of injections per eye in the first year of treatment was seven and the interval between injections at the end of the first year was ten weeks. More than 70% of injections (7 in 10) were administered by trained staff who were not doctors, such as nurses or optometrists.

Changes in vision at the end of the first year of treatment were similar to those found in the prior annual reports. More than 90% of eyes (9 in 10) retained stable vision at the end of the first year of treatment and avoided a “significant” further decrease in vision. Almost 20% of eyes (1 in 5) experienced a “significant” improvement in vision and more than 40% (4 in 10) had “good” vision (close to driving standard) after the first year of treatment.

The best outcomes were observed in eyes with better vision at the start of treatment, in younger people and in second treated eyes. “Good” vision was retained in most eyes with this level of vision at the start of treatment but eyes with “poor” vision at the start of treatment rarely achieved “good” vision after one year of treatment. **These findings re-enforce the importance of prompt referral, initial assessment, diagnosis and treatment.**

Treatment appeared to be safe, with a low number of serious side-effects. For example, the risk of serious infection after each injection was around 1 in 6,600.

Follow-up data was unavailable for almost 20% of patients (2 in 10) after 12 months of treatment and for almost 40% (4 in 10) after 24 months. Visual outcomes after the first year of treatment were largely maintained in the second year. The most frequent number of injections per eye in the second year of treatment was two.

## Summary

Treatment for “wet” or neovascular age-related macular degeneration stabilises vision in most eyes. The best outcomes are found when treatment is started when vision is still good

Compared to the year two report, visual outcomes after treatment are improving and the risk of serious infection appears to be falling.

Levels of vision at the start and end of the first year of treatment, treatment pathway and the proportion of injections given by non-medical staff continue to vary between centres.

The treatment outcomes from this audit can help patients and their carers make informed decisions around starting treatment when wet AMD is first diagnosed, especially in eyes with “poor” vision at the start of treatment.

## Recommendations for patients

* Patients and carers with an interest in wet AMD treatment are encouraged to access information about care pathways and treatment outcomes, either from their local provider or through the full audit report, available on the National Ophthalmology Database Audit [website](https://nodaudit.org.uk/)
* Patients and carers are encouraged to ask their provider if they participate in the AMD Audit and, if not, suggest participation. The clinical staff can contact the NOD AMD Audit team directly by email: noa.project@rcophth.ac.uk
* Treatment for wet AMD is more likely to stabilise than improve vision. This re-enforces the need to seek advice promptly in the event of new difficulties with reading, distortion or a central blurred patch in one or both eyes
* Patients and carers should ask staff in their local provider about the expected benefits and the duration of treatment for wet AMD, particularly in eyes with specific levels of vision at the start of treatment
* During treatment for the “first” eye, patients should ask clinical staff at regular intervals if there are any signs of wet AMD in their second eye
* If treatment for wet AMD is ever paused, patients and their carers should be aware that wet AMD can become active again in the treated eye and know how to contact their local provider quickly in the event of new symptoms
* Similarly, if treatment in the first eye is stopped or was not appropriate and no further follow-up is planned, patients and their carers should be aware that more than a third (33%) of people develop wet AMD in their second eye. In the event of new symptoms in the second eye, help should be sought promptly and usually from a local optometrist
* More information and support for patients with AMD and their carers is available from the [Macular Society](https://www.macularsociety.org/) or telephone 0300 3030 111 and the [Royal National Institute of Blind People](https://www.rnib.org.uk/) or telephone 0303 123 9999

## Future of the NOD AMD audit

* The NOD UK AMD Audit will continue to work with NHS Trusts and independent sector treatment providers to improve the data quality for future audits.
* Results from the audit will be made available on the National Ophthalmology Database [website](https://nodaudit.org.uk/), allowing patients and providers to compare the care pathway and treatment outcomes in individual centres with national averages.

## Explanatory notes

A “significant” change in vision is one that most people would be expected to notice and is equivalent to a change of 15 or more letters on an EDTRS vision chart.

In this summary report, “Good” vision is equivalent to reading 70 or more letters on an EDTRS chart (Snellen chart 6/12) and “Poor” vision is equivalent to reading 35 letters (Snellen chart 6/60) or fewer.

“Dry” macular degeneration is not included in the audit as there are currently no approved treatments in the UK for this form of macular degeneration.

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