Evaluation of the care pathway for patients referred from primary care with suspected neovascular age-related macular degeneration

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Background

AMD is the leading cause of blindness in the UK (1). Clinical research and real-world datasets have found treatment to be most effective when initiated early, while visual acuity is still good (2). For this reason, it is recommended that:

1. Treatment is initiated within 14 days of receipt of referral (3)
2. An initial 3 loading doses are delivered within 10 weeks (4)

Data for patients treated in 2021/22 for the second UK AMD audit showed that the percentage of patients meeting these targets in Leeds declined since the first report covering the period 2020/21 (5).

Aims

1. To estimate the true positive referral rate for referrals for suspected neovascular AMD from primary care
2. To assess the proportion of treatment naïve eyes with neovascular AMD that are started on intra-vitreal therapy within 14 days of referral
3. To assess the number of patients who receive the 3 initial monthly injections within 10 weeks
4. To evaluate the reasons for delays and notable variations in meeting targets

Methods

All patients starting treatment for neovascular AMD in 2023 were identified. These patients were cross-referenced with the department's dedicated nAMD referral email inbox to distinguish those who had been newly referred. Patients already known to the department or who had started treatment via an alternative route were excluded. Both the referral email inbox and patient databases mediSIGHT and PPM+ were used to collect relevant data. The percentages of eyes meeting the targets were plotted against time in months to identify whether there are any obvious causes in variation to meeting targets.

Results

The total number of patients in this data set was **120**. The true positive referral rate between April and December 2023 was **22%**.

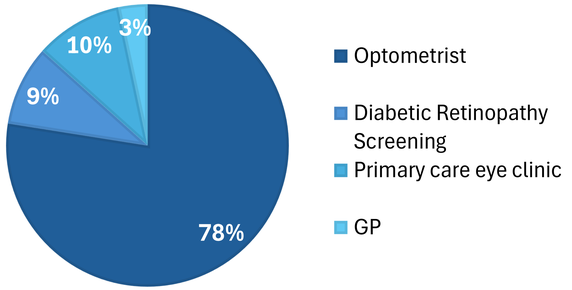


Figure 1. Chart to show the sources of wet-AMD referrals from primary care

87% patients received their third loading dose within 10 weeks of the first. The proportion meeting this target increased between September and December.

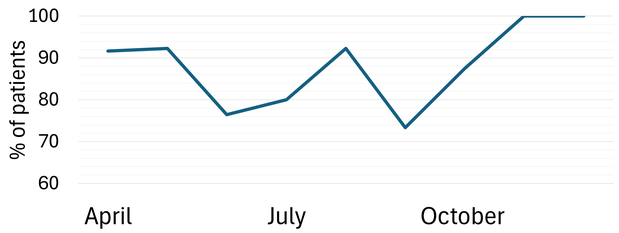


Figure 3. Graph to show the percentage of patients that received 3 loading doses within 70 days by month

Overall, **52%** of patients started treatment within 14 days and **31%** started treatment within 28 days of referral from primary care.

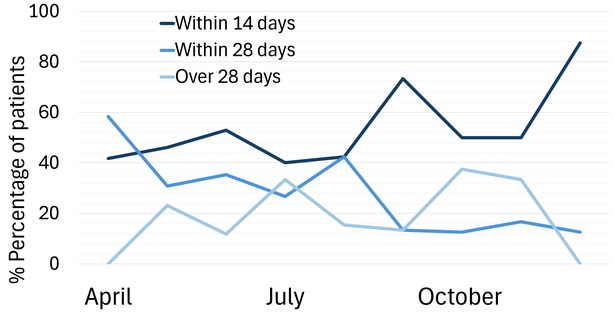


Figure 2. Percentage of patients who started treatment within different timeframes by month

Initial treatment was delayed in **58** out of 120 patients (42%). Hospital factors were the most common reason, particularly in August. Receipt of the third loading dose was delayed in **16** patients, with patient factors being the most common reason for delays.

Category	Initial treatment delayed	3rd loading dose delayed
Patient	14	8
Clinician	13	1
Hospital	26	7
Not identified	5	0

Figure 4. Table to show the number of patients whose treatment was delayed due to different factors

Conclusion

The dedicated email inbox for patients with suspected neovascular AMD receives a large number of referrals, most from community optometrists, but the true positive referral rate is low. The high number of false positive referrals risks overwhelming capacity for initial assessment. Following changes to the local care pathway, there have been some improvements in the proportion of eyes meeting key targets during 2023. Of note, the proportion meeting the 10-week target remained 100% throughout November and December. Hospital factors are the most common cause of delay in starting treatment, but patient factors account for most of the delays in completion of the 3 initial, monthly injections, suggesting that patients have difficulty adhering to treatment and may benefit from additional support.

Discussion

The first UK AMD audit identified the need for improvement in the nAMD care pathway in Leeds. The changes implemented in response to this took place after the period studied in the second report, explaining the discrepancies between the report's findings and these results.

There are some nAMD patients in Leeds that may not have been accounted for in this study as they will have come to the attention of the department via alternative routes. However, we hope these results and the improved performance will be representative of the entire patient population in subsequent AMD Audit reports.

References:

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