IQVIA Research Project: CEE Ophthalmology Ecosystem Study

Key Findings & Takeaways: Bulgaria (as of November 2024)

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October 1st, 2025

Please note that the project has been financed by Roche

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1 | Project scope and approach

The main aim of the study is to understand the ophthalmology ecosystem in CEE and identify potential areas for improvement

Project background, scope & objectives

Project Background

- AMD and DME are leading causes for visual impairment, but still in selected CEE countries many patients remain undiagnosed, late diagnosed, untreated & non adherent to treatment
- The aim of the report is to raise awareness and provide suggestions for adequately addressing visual impairment treatment, with a focus on three of its most common causes – **nAMD, DME & RVO***

Objectives

- **Healthcare system and stakeholder mapping**
- **Patient population sizing**
- **Gap analysis & recommendation building**

GEO Scope

- **Bulgaria**
- **Hungary**
- **Lithuania**
- **North Macedonia**
- **Poland**
- **Romania**

Note: *Key focus was put on AMD & DME indications. RVO indication was analyzed with primary focus on epidemiology only.

Source: IQVIA

2 | Country deep-dive: Bulgaria

nAMD | DME | RVO

Bulgaria is lacking national guidelines & screening programs; in addition, patients often face OoP costs for anti-VEGF application

Country snapshot – Bulgaria

Epidemiology & Treatment Funnel

Population	6.4 million		
	nAMD	**DME**	**RVO**
Prevalence (% of population; absolute)	**32.2k** (0.50%)	**30.9k** (0.48%)	**25.8k** (0.40%)
Diagnosed (% of prevalence; absolute)	**12.9k** (40%)	**6.2k** (20%)	**3.9k** (15%)
Treated (% of diagnosed; absolute)	**11.0k** (80%)	**3.1k** (50%)	**1.5k** (40%)
The estimated share of patients on on-label anti-VEGF treatment in Bulgaria is 50% for all indications			
Treated on-label	**5.5k**	**1.5k**	**0.8k**
Compliant *(% of treated)*	***90%***	***80%***	***85%***

Note: Estimates based on multiple secondary sources for prevalence (see individual patient pop. slides), primary intelligence for diagnosis rates, combination of available data & primary intelligence for treatment rates, and primary intelligence for compliance

Source: IQVIA primary intelligence; IQVIA analysis

Vision Health Overview

Vision Care Maturity ●●●○○

Vision Health's Priority in Healthcare Agenda	◔
nAMD/DME Awareness	◑
Availability of Screening & Diagnostics	◑
Accessibility of Anti-VEGF Treatment	◑
HCP Disease Management Maturity	◑
PAG's Involvement in Decision Making	◑

Legend: ○ Low ◑ Medium ● High

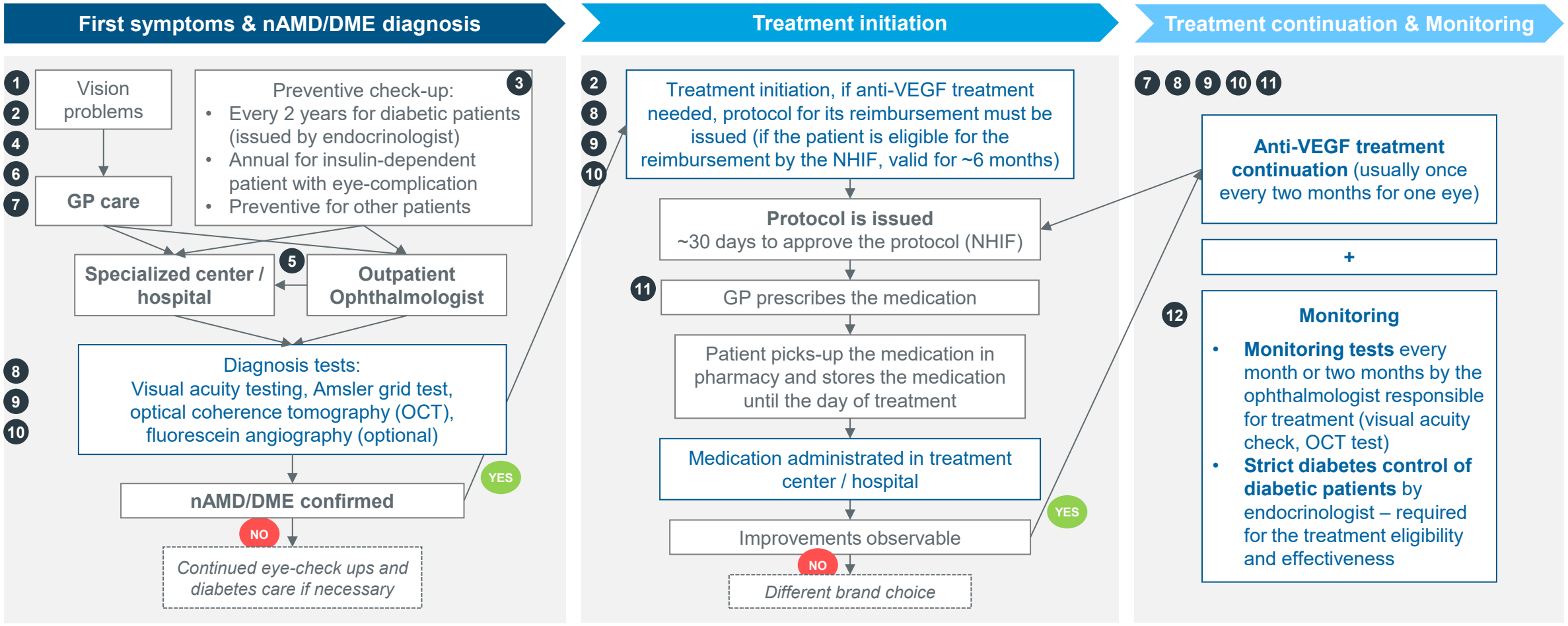
Market summary

- No national initiatives and strategies focused on vision health
- Low patient awareness
- High share (80-90%) of private ophthalmology diagnostic & treatment centers; around 90 centers in total – mostly located in big cities, varying quality
- While there is reimbursement of Eylea, Beovu, Vabysmo in both private and public sector; there are out-of-pocket payments in private centers for treatment application (around 130 BGN)
- Complicated administration of anti-VEGF treatment (reimbursement protocol must be issued every 6 months, patients need GP's prescription, pick-up injections in pharmacies and store them at home)

nAMD DME RVO

We identified 12 challenges in the BG vision health and mapped them to the patient pathway

Patient pathway & observed challenges



Source: IQVIA primary intelligence; IQVIA analysis

nAMD | DME | RVO

Low awareness across patients & lack of education/prevention activities are key reasons for underdiagnosis or late diagnosis

Key barriers & challenges (1/6)

	Barrier / challenge	Description / Detail	Relative importance/ impact on ecosystem	Relative ease of change in ecosystem
1	**Insufficient education & prevention activities for patients**	• There is a limited number of prevention and vision health education campaigns that would benefit the patient; no national initiatives in place, events usually organized by clinics/hospitals in specific regions *"There should be more general awareness campaigns about diabetes and the complications that can arise. More brochures could be available in the clinic for patients to take."* – Endocrinologist		
2	**No national screening programs/guidelines**	• There is lack of national initiatives, no national screening programs or guidelines in place *"There are no specific programs for diabetic retinopathy screening, despite international guidelines and European practices. Large-scale early detection programs do not exist in our country. Nothing is being done by the state or other organizations."* – Ophthalmologist		
3	**Insufficient monitoring of diabetic patients**	• Diabetic patients neglect preventive check-ups at ophthalmologists or even referrals from endocrinologists; they seek eye specialists only when complications arise *"Diabetic patients often don't monitor their blood sugar levels regularly nor follow their treatment regimen. It's only when complications arise, that they visit an eye specialist."* – Endocrinologist		
4	**Low patient awareness & patient attitudes**	• Deterioration in vision is often mistaken for age-related vision changes and patients do not seek help with the first symptoms *"Sometimes, the deterioration in vision is mistaken for age-related vision changes."* – Endocrinologist *"A notable percentage of patients (about 10-15%) come to us later than they should have. They delay visiting us, which means we take longer to reach a diagnostic pathway to identify the root cause… and then proceed with a treatment."* – GP		

Source: IQVIA primary intelligence; IQVIA analysis

Legend: ○ Low ◑ Medium ● High

nAMD | DME | RVO

HCPs are missing more coordination and communication among different specialties; there is no official follow-up system

Key barriers & challenges (2/6)

	Barrier / challenge	Description / Detail	Relative importance/ impact on ecosystem	Relative ease of change in ecosystem
5	**Lack of care coordination**	• Not sufficient coordination/communication between HCPs (ophthalmologists, endocrinologists, GPs) • No official follow-up system *"Ophthalmologists should collaborate with optometrists and geriatricians, as we're talking about elderly patients with more complex problems."* – PAG *"I haven't had any feedback; colleagues have not contacted me about anything, nor have I contacted them. We just follow the procedures, issue the necessary referrals, and the patients go to the specialists. There should be some system to follow up on the patient with the doctor who prescribed the treatment."* – Endocrinologist *"The communication between us and ophthalmologists could be improved. It would be helpful to be more informed about new medications, that would help us better inform and motivate patients to come to us more regularly."* – Endocrinologist *"We always ask the patient to return to us after seeing a specialist, regardless of whether a diagnosis was made, to share what was found. We usually rely on feedback from the patients."* – GP • Limited number of referrals from endocrinologists to specialist consultations[1] *"We still struggle with the limitation on referrals for specialist consultations. If a patient doesn't specifically complain, we rarely call them in for preventive care because that would use up our referral quota."* – Endocrinologist		

Note: 1) Only mentioned by one endocrinologist

Source: IQVIA primary intelligence; IQVIA analysis

Legend: ○ Low ◑ Medium ● High

nAMD | DME | RVO

There are pronounced regional differences - with delayed diagnosis, underdiagnosis and treatment quality being issues in many areas

Key barriers & challenges (3/6)

	Barrier / challenge	Description / Detail	Relative importance/ impact on ecosystem	Relative ease of change in ecosystem
6	**Regional differences**	• In remote provinces, reaching specialized clinics for diagnosis & treatment is an issue, this results in delayed diagnosis (in rural areas, diagnosis tends to occur at more advanced stages) and significant underdiagnosis • High quality treatment is not easily accessible for patients from rural areas *"In various smaller towns and rural areas, there isn't enough access to specialized eye centers, and as a result, diagnoses for nAMD, DME, and RVO are often delayed. These are conditions where, if diagnosed early, severe and irreversible retinal damage can be prevented."* – Ophthalmologist *"There are areas where diabetic patients are not well-treated, and consequently, they have more severe complications. We see this a lot in regions like Lom and Pazardzhik, where either primary care isn't as good, or patients are somehow resistant to treatment."* – Ophthalmologist	◑	◔
7	**Extent to which PAGs' are included in decision making**	• Vision PAGs in Bulgaria are actively participating on various projects in vision health (including multinational projects), but the extent to which they are included in the official decision-making process is still limited *"In Bulgaria, it's not about involving patient organizations, although it should be… we had to push hard to get [our PAG] involved."* – PAG *"We organize joint scientific forums with PAGs and communicate regularly; however, PAGs still don't have their rightful place in the healthcare map, and in most cases, they are seen as intruders in the system rather than partners."* – Ophthalmologist	◑	◑

Source: IQVIA primary intelligence; IQVIA analysis

Legend: ○ Low ◑ Medium ● High

nAMD | DME | RVO

In private centers, patients have to pay ~60 euros for the anti-VEGF treatment, which is a challenge especially for the elderly

Key barriers & challenges (4/6)

	Barrier / challenge	Description / Detail	Relative importance/ impact on ecosystem	Relative ease of change in ecosystem
8	**High OoP payments in private centres**	• Patients have to cover significant part of the diagnostic tests; further, they have to cover the application costs in private centers by themselves, the cost is around 130 BGN (~60 euros) *"Unfortunately, much of the burden falls on the shoulders of individual patients. We often encounter financial difficulties, as the necessary funds aren't always immediately available."* – Ophthalmologist *"There are direct costs, including tests. After that, there's the cost of the injection procedure and additional tests, which are also paid for by the patient. These are costs that the patient partially covers out of pocket."* – PAG		

Source: IQVIA primary intelligence; IQVIA analysis

Legend: ○ Low ◑ Medium ● High

nAMD | DME | RVO

The quality of ophthalmology care is uneven across BG, rural areas in particular lack specialists in retinal diseases

Key barriers & challenges (5/6)

	Barrier / challenge	Description / Detail	Relative importance/ impact on ecosystem	Relative ease of change in ecosystem
9	**Low preparedness of some ophthalmology specialists/centers**	• Varying quality of ophthalmology specialists/centers, no monitoring of patients' satisfaction *"Unfortunately, ophthalmology is considered one of the most commercialized fields in healthcare. There are a lot of eye clinics, possibly more than 100, that are authorized to work with the Health Insurance Fund. Many clinics haven't passed through the European Commission for approval to work according to the standards for complex retinal diseases. There is no monitoring of their activities, and patient satisfaction is not tracked."* – Ex-payer • Some ophthalmologists (especially in rural areas) have a lack of knowledge when it comes to treating diabetic patients; missing specialists who would focus on diabetic retinopathy *"There's no organized system for people who specialize in diabetes-related eye issues, which would be valuable. We know where to send patients in Sofia, but overall, I wouldn't say there's good control. We often see patients who are severely neglected and inadequately treated, a recent patient of mine had been sent back and forth between ophthalmologists because they couldn't treat him due to his poor diabetes control."* – Endocrinologist *"The biggest challenge is first finding the right doctor — someone who is competent enough to manage the condition and who can ensure ongoing monitoring of the patient."* – Endocrinologist *"I believe the delay in making a specific, correct diagnosis is an issue."* – GP	◑	◔
10	**Missing digital system**	• The number of diagnostics/treatment centers and the number of diagnosed patients with nAMD, DME, RVO are not traceable	◔	◔

Source: IQVIA primary intelligence; IQVIA analysis

Legend: ○ Low ◑ Medium ● High

nAMD | DME | RVO

Patients perceive system for obtaining anti-VEGF treatment (prescription by GP, pick up at pharmacy, store in fridge) as a barrier

Key barriers & challenges (6/6)

	Barrier / challenge	Description / Detail	Relative importance/ impact on ecosystem	Relative ease of change in ecosystem
11	**Optimization of the patient journey for anti-VEGF treatment**	• Anti-VEGF treatment is prescribed by GPs, although ophthalmologists are the treating specialty submitting the reimbursement protocols to NHIF *"Although the regulations allow specialists in outpatient care to prescribe medications under the health insurance system, over the years, this responsibility has shifted almost entirely to GPs. For these specific conditions, patients should be fully under the care of an ophthalmologist who can prescribe both the protocol and the prescription."* – GP *"I've received a protocol from the NHIF for six months, meaning I'm entitled to six injections. But when I go to the pharmacy for my injection, I have to visit my GP beforehand to get a prescription. Every 56 days, I'm allowed to get one injection from the pharmacy."* – DME patient • Patients must order injections to pharmacies, then pick them up and store them until the treatment application, this causes additional waiting time (product not always in stock) and travel time to pharmacy *"Almost every month, I must go to the GP for a prescription and pick up the injections in pharmacy. It's an unnecessary trip, but that's the system."* – AMD patient	 	 
12	**Lack of visual rehabilitation**	• There is a limited number of centers for visual rehabilitation where patients can learn how to increase their quality of life with visual impairment		

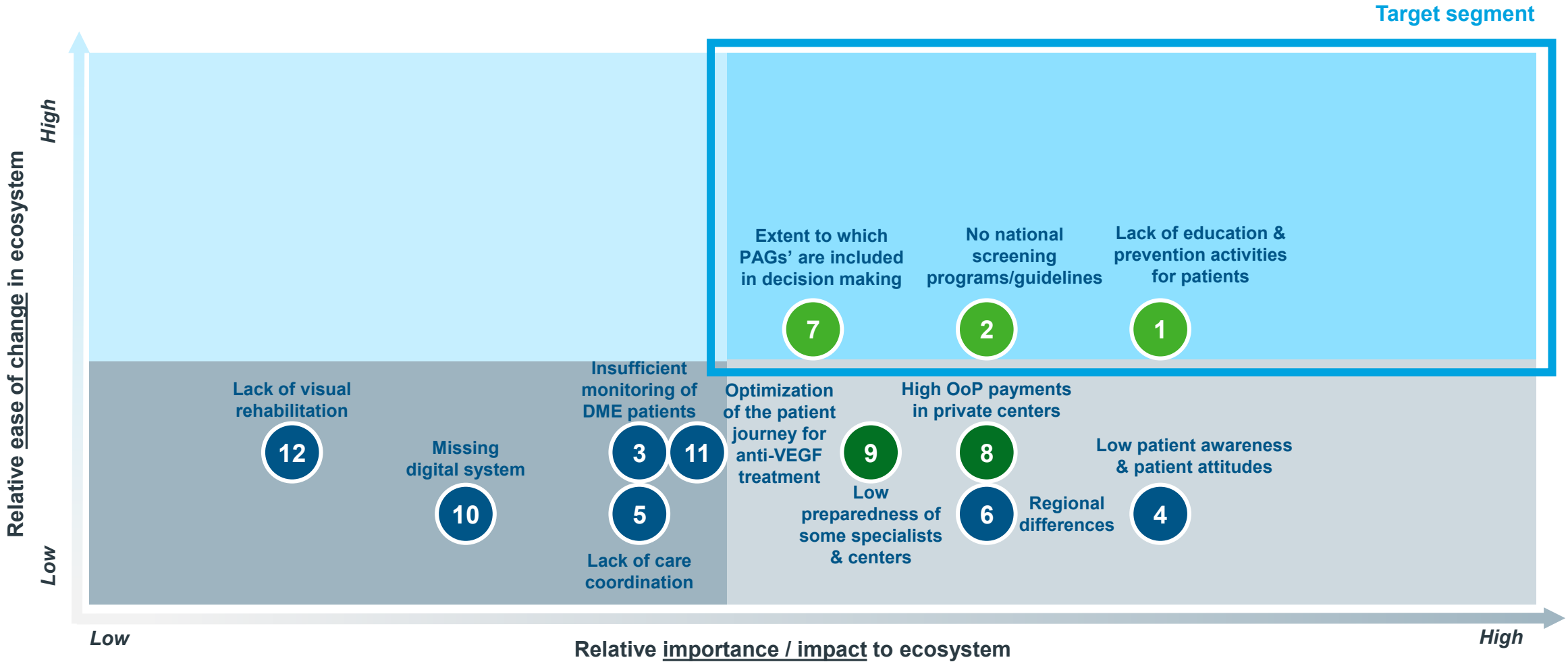
Source: IQVIA primary intelligence; IQVIA analysis

Legend: Low | Medium | High

nAMD | DME | RVO

We have identified 3 main barriers in the Bulgarian vision health landscape with the most potential to be mitigated

Barrier assessment matrix



Source: IQVIA analysis

Barriers' prioritization: Key focus | Mid focus | Low focus

nAMD DME RVO

Recommended initiatives include the development of educational materials and increased cooperation with PAGs

Recommendations

	Barrier	Relative importance/ impact on ecosystem	Relative ease of change in ecosystem	Key Recommendations
1	**Lack of education & prevention activities for patients**	◕	◑	• Ensure partnership between PAGs, KOLs, scientific societies, pharma companies and private clinics to engage in prevention and education campaigns • Focus especially on rural regions, where the overall awareness across patients, HCPs, and ophthalmology specialists is the lowest (Northwestern and Southern area) • Prepare educational materials for patients (leaflets, websites) that can be distributed/referred to at local HCPs offices
2	**No national screening programs/guidelines**	◕	◑	• Organize a roundtable with the key stakeholders (NHF, KOLs, professional societies) to develop a concept of national screening program • Advocate for inclusion of vision testing in regular checkups • Collaborate with local authorities to share best practices and initiate a local pilot screening program, showcasing its importance advantages to key stakeholders
7	**Extent to which PAGs' are included in decision making**	◑	◑	• Strengthen cooperation between authorities and PAGs like Retina Bulgaria, and focus on co-hosted events and campaigns to increase visibility and credibility • Facilitate cooperation between HCPs and PAGs through workshops • Seek support from other ecosystem players on facilitating PAGs communication with the government and its engagement in the official decision-making process

Source: IQVIA analysis

Legend: ○ Low ◑ Medium ● High

nAMD | DME | RVO

Supporting education of patients and ophthalmologists especially in the rural areas could increase the diagnosis rates

Recommendations

	Barrier	Relative importance/ impact on ecosystem	Relative ease of change in ecosystem	Key Recommendations
8	**High OoP payments in private centres**	◑	◔	• Collaborate with key national stakeholders to raise awareness of vision health importance • Activate and support KOLs in advocating for reimbursement/lower cost of diagnostic tests and anti-VEGF treatment application in private centers • Conduct a market research focusing on patients who are not diagnosed and do not undergo treatment due to high application costs to quantify the impact
9	**Low preparedness of some ophthalmology specialists/centers**	◑	◔	• Support/prepare local awareness campaigns targeting ophthalmologists (e.g. email campaigns targeting ophthalmologists in rural regions) • Organize webinars/conferences for local ophthalmologists focusing on the early diagnosis of retinal diseases and the importance of timely treatment initiation • Create a dedicated webpage to provide guidance to patients seeking treatment, including information on nearby treatment centers equipped with OTC scans • Collaborate with ophthalmological societies and public bodies to establish best practices / guidelines for vision health screening on national level

Source: IQVIA analysis

Legend: ○ Low ◑ Medium ● High

Thank you

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