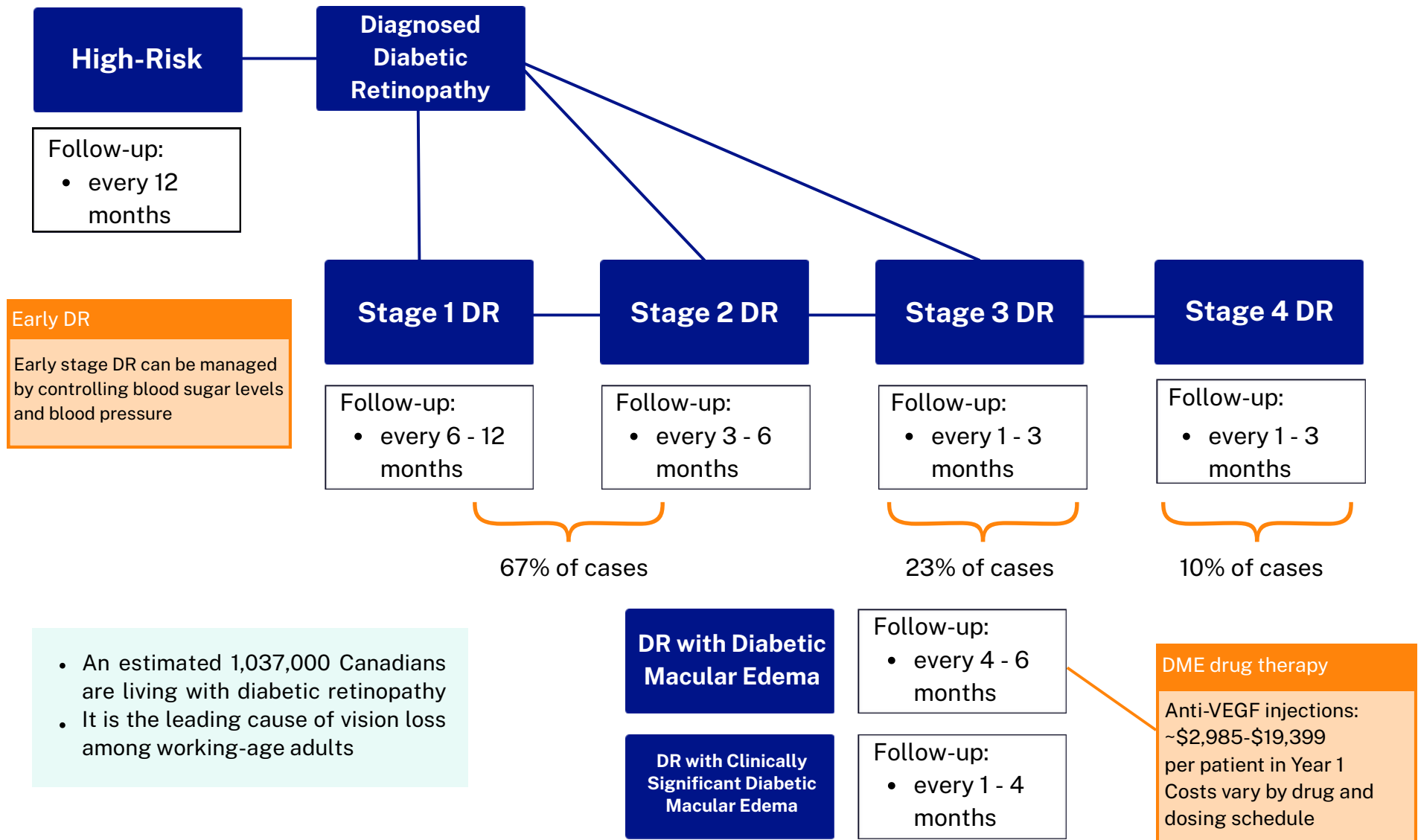


Treatment Pathway: Diabetic Retinopathy (DR)



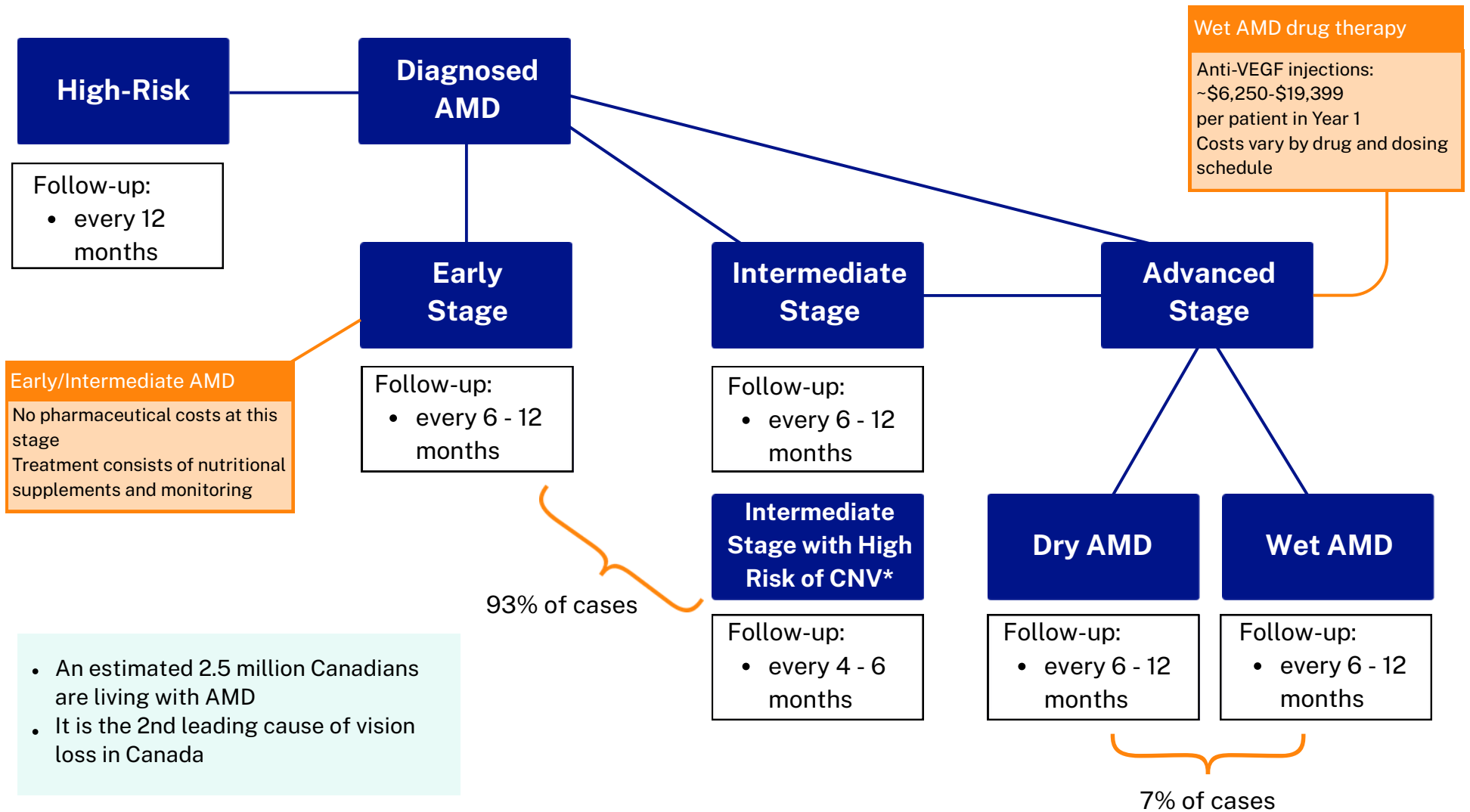
Disclaimer: Exact treatment pathways may vary based on individual patient factors and clinical judgement of the Optometrist.
Based on the American Optometric Association's Clinical Practice Guideline: Eye Care of the Patient with Diabetes Mellitus (2019)
See the CAO's The Workplace Cost of Vision Loss for the estimated cost of diabetic retinopathy by disease stage.

Diabetic Retinopathy (DR)

At each visit the following tests may be warranted. Many of these tests are not covered by provincial public plans. See the CAO's *Vision Care in Canada: Public Coverage Grid* for further information on public coverage and the gaps in care.

Test	Purpose
Patient History	Includes symptoms related to diabetes, current medication, known drug allergies, duration of diabetes, and most recent HbA1C result.
Ocular Examination	Assessment of visual acuity, eye prescription, pupils, structures of the front and back of the eye, to check for the presence of diabetic retinopathy in the eye.
Optical Coherence Tomography (OCT)	Non-invasive high resolution imaging of the layers of the retina to detect diabetic retinopathy and diabetic macular edema, determine disease severity and monitor for change over time.
Visual Field	Detects functional vision loss and monitors for change over time.
Retinal Imaging	Photodocumentation of the retina, determine disease severity, and monitor for change over time.
Fundus Autofluorescence	Non-invasive imaging used to detect and objectively quantify disease severity.
Fluorescein Angiography	Identifies leaking blood vessels and lesions in the eye.

Treatment Pathway: Age-Related Macular Degeneration (AMD)



- An estimated 2.5 million Canadians are living with AMD
- It is the 2nd leading cause of vision loss in Canada

*CNV = Choroidal neovascularization, the growth of new, abnormal blood vessels in the eye

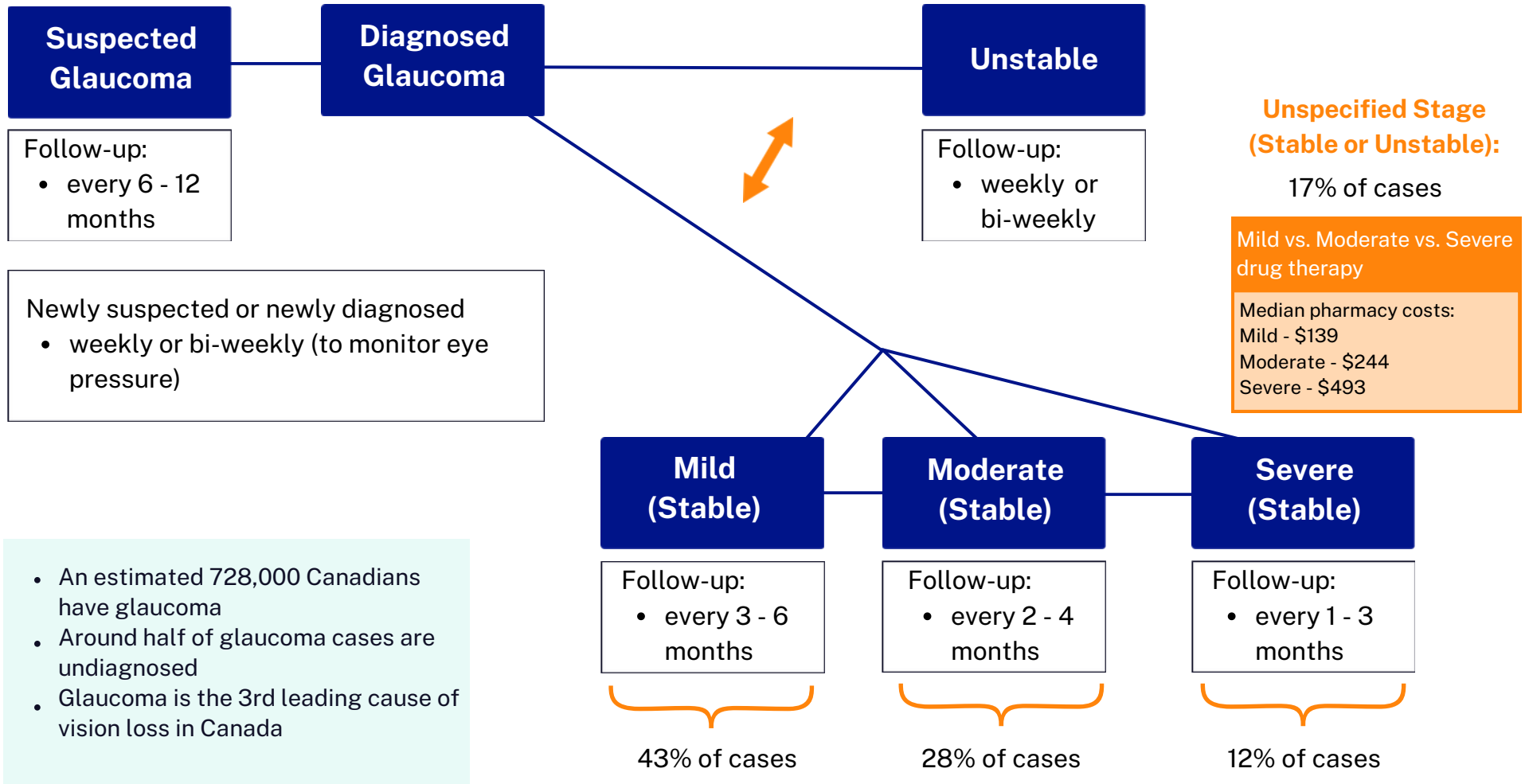
Disclaimer: Exact treatment pathways may vary based on individual patient factors and clinical judgement of the Optometrist.
Based on the American Optometric Association's Clinical Practice Guideline: Care of the Patient with Age-Related Macular Degeneration (2004)
See the CAO's The Workplace Cost of Vision Loss for the estimated cost of AMD by disease stage.

Age-Related Macular Degeneration (AMD)

At each visit the following tests may be warranted. Many of these tests are not covered by provincial public plans. See the CAO's *Vision Care in Canada: Public Coverage Grid* for further information on public coverage and the gaps in care.

Test	Purpose
Patient History	Includes risks related to AMD, current medication, known drug allergies.
Ocular Examination	Assessment of visual acuity, eye prescription, pupils, structures of the front and back of the eye, to check for the presence of AMD.
Optical Coherence Tomography (OCT)	Non-invasive high resolution imaging of the layers of the retina to detect AMD, determine severity and monitor for change over time.
Visual Field	Detects functional vision loss and monitors for change over time.
Retinal Imaging	Photodocumentation of the retina, determine disease severity and monitor for change over time.
Fundus Autofluorescence	Non-invasive imaging used to detect and objectively quantify disease severity.
Fluorescein Angiography	Identifies leaking blood vessels and lesions in the eye.

Treatment Pathway: Glaucoma



Disclaimer: Exact treatment pathways may vary based on individual patient factors and clinical judgement of the Optometrist.
Based on the American Optometric Association's Clinical Practice Guideline: Care of the Patient with Open Angle Glaucoma (2024)
See the CAO's The Workplace Cost of Vision Loss for the estimated cost of glaucoma by disease stage.

Glaucoma

At each visit the following tests may be warranted. Many of these tests are not covered by provincial public plans. See the CAO's *Vision Care in Canada: Public Coverage Grid* for further information on public coverage and the gaps in care.

Test	Purpose
Patient History	Includes risk factors for glaucoma, current medication and known drug allergies.
Ocular Examination	Assessment of visual acuity, pupils, structures of the front and back of the eye, to check for the presence of glaucoma.
Tonometry	Measures the pressure inside of each eye, focusing on any differences between the pressures in each eye and fluctuations in different hours of the day.
Pachymetry	Measures the thickness of the central part of the cornea to account for the accuracy of tonometry measurements.
Gonioscopy	Assessment to determine the type of glaucoma, distinguishing between primary open angle glaucoma and closed angle glaucoma, and primary glaucoma from secondary glaucoma.
Optical Coherence Tomography (OCT)	Non-invasive high resolution imaging of the layers of the retina, optic nerve, and nerve fiber layer to detect glaucoma, determine disease severity and monitor for change over time.
Visual Field	Detects functional visual loss (particularly peripheral functional loss in glaucoma) and monitors for change over time.
Retinal Imaging	Photodocumentation of the optic nerve and nerve fiber layer to detect glaucoma, determine disease severity, and monitor for change over time.

Drug Cost Sources and Notes

Drug cost callouts show approximate drug-treatment costs only. They are intended to highlight how medication burden increases as diseases progress. They do not include professional fees, injection administration, diagnostic imaging, monitoring visits, lost productivity, disability costs, or other downstream costs.

Diabetic retinopathy with diabetic macular edema (DME)

Anti-VEGF drug therapy: approximately \$2,985-\$19,399 per patient in Year 1, depending on agent and dosing schedule. Off-label use of bevacizumab may be substantially lower.

Source: Canadian Agency for Drugs and Technologies in Health. Aflibercept 8 mg (Eylea HD): Reimbursement Review: Diabetic Macular Edema. Table 4, CDA-AMC cost-comparison table for diabetic macular edema. Published 2024.
https://www.ncbi.nlm.nih.gov/books/NBK610416/table/tr8269868382081382_ch02_t04/

Wet age-related macular degeneration (wet AMD/nAMD)

Anti-VEGF drug therapy: approximately \$6,250-\$19,399 per patient in Year 1, depending on agent and dosing schedule. Off-label use of bevacizumab may be substantially lower.

Source: Canadian Agency for Drugs and Technologies in Health. Aflibercept 8 mg (Eylea HD): Reimbursement Review: Macular Degeneration, Age-Related. Table 4, CDA-AMC cost-comparison table for neovascular age-related macular degeneration. Published 2024.
https://www.ncbi.nlm.nih.gov/books/NBK610416/table/tr8269868382081382_ch02_t04/

Glaucoma

Median glaucoma-related pharmacy costs based on disease severity : mild - \$198, moderate - \$244, severe - \$493

Source: Shih V, Parekh M, Multani JK, et al. Clinical and economic burden of glaucoma by disease severity: a United States claims-based analysis. *Ophthalmol Glaucoma*. 2021;4(5):490-503. doi:10.1016/j.ogla.2020.12.007

Note: Drug-cost ranges are approximate estimates