

Supplemental Table B. Cohort definition of adults with diabetic retinopathy, glaucoma, cataract, and age-related macular degeneration in UCSD Electronic Health Record clinical database. Participants with the following medical history, chief complaint, or diagnosis were included in the respective cohorts. International Classification of Diseases (ICD) codes were included when available.

Diagnosis Cohort	Medical History	Chief Complaint	Diagnosis
Diabetic Retinopathy	Retinopathy due to diabetes mellitus, Retinopathy due to secondary diabetes mellitus, Retinopathy due to type 2 diabetes mellitus	Diabetic Retinopathy	Retinopathy due to diabetes mellitus, Retinopathy due to secondary diabetes mellitus, Retinopathy due to type 2 diabetes mellitus, Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema(ICD-10-CM: E11.351), Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema(ICD-10-CM: E13.351), Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema(ICD-10-CM: E11.359), Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema(ICD-10-CM: E13.359), Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema(ICD-10-CM: E11.321), Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema(ICD-10-CM: E11.329), Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema(ICD-10-CM: E11.331), Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema(ICD-10-CM: E11.341), Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema(ICD-10-CM: E11.349), Type 2 diabetes mellitus with unspecified diabetic retinopathy with macular edema (CMS-HCC)(ICD-10-CM: E11.311), Type 2 diabetes mellitus with unspecified diabetic retinopathy without macular edema (CMS-HCC)(ICD-10-CM: E11.319), Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema(ICD-10-CM: E08.351), Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema(ICD-10-CM: E13.329), Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema(ICD-10-CM: E13.331), Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema(ICD-10-CM: E13.341), Other specified diabetes mellitus with unspecified diabetic retinopathy with macular edema (CMS-

HCC)(ICD-10-CM: E13.311), Other specified diabetes mellitus with unspecified diabetic retinopathy without macular edema (CMS-HCC)(ICD-10-CM: E13.319), Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema(ICD-10-CM: E11.339), Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye (CMS-HCC)(ICD-10-CM: E11.3512), Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy with macular edema(ICD-10-CM: E08.321), Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy without macular edema(ICD-10-CM: E08.359), Diabetes mellitus due to underlying condition with unspecified diabetic retinopathy with macular edema (CMS-HCC)(ICD-10-CM: E08.311), Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema(ICD-10-CM: E13.339), Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye (CMS-HCC)(ICD-10-CM: E13.3512), Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema(ICD-10-CM: E13.349), Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye (CMS-HCC)(ICD-10-CM: E11.3519), Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral (CMS-HCC)(ICD-10-CM: E11.3593), Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye (CMS-HCC)(ICD-10-CM: E11.3592), Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye (CMS-HCC)(ICD-10-CM: E11.3591), Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without macular edema(ICD-10-CM: E08.329), Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy with macular edema(ICD-10-CM: E08.331), Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy with macular edema(ICD-10-CM: E08.341), Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy without macular edema(ICD-10-CM: E08.349), Diabetes mellitus due to underlying condition with unspecified diabetic retinopathy without macular edema (CMS-HCC)(ICD-10-CM: E08.319), Type 2 diabetes mellitus with mild

nonproliferative diabetic retinopathy with macular edema, bilateral (CMS-HCC)(ICD-10-CM: E11.3213), Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye (CMS-HCC)(ICD-10-CM: E11.3212), Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye (CMS-HCC)(ICD-10-CM: E11.3211), Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral (CMS-HCC)(ICD-10-CM: E11.3293), Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye (CMS-HCC)(ICD-10-CM: E11.3292), Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye (CMS-HCC)(ICD-10-CM: E11.3291), Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral (CMS-HCC)(ICD-10-CM: E11.3313), Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye (CMS-HCC)(ICD-10-CM: E11.3312), Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye (CMS-HCC)(ICD-10-CM: E11.3311), Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye (CMS-HCC)(ICD-10-CM: E11.3599), Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral (CMS-HCC)(ICD-10-CM: E11.3413), Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye (CMS-HCC)(ICD-10-CM: E11.3412), Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye (CMS-HCC)(ICD-10-CM: E11.3411), Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye (CMS-HCC)(ICD-10-CM: E11.3492), Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy without macular edema(ICD-10-CM: E08.339), Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye (CMS-HCC)(ICD-10-CM: E13.3212), Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye (CMS-HCC)(ICD-10-CM: E13.3211), Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without

			macular edema, left eye (CMS-HCC)(ICD-10-CM: E13.3292), Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye (CMS-HCC)(ICD-10-CM: E13.3599), Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye (CMS-HCC)(ICD-10-CM: E13.3519), Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral (CMS-HCC)(ICD-10-CM: E13.3413)
Glaucoma	Glaucoma, Glaucoma and corneal anomaly, Glaucoma associated with anterior segment anomaly, Glaucoma associated with iridocorneal endothelial syndrome, Glaucoma associated with lens disorder, Glaucoma associated with ocular disorder, Glaucoma associated with ocular inflammation, Glaucoma associated with ocular trauma, Glaucoma associated with tumors AND/OR cysts, Glaucoma associated with vascular disorder, Glaucoma due to chamber angle anomaly, Glaucoma due to combination of mechanisms, Glaucoma due to eye inflammation, Glaucoma due to iris anomaly, Glaucoma due to ocular vascular disorder, Glaucoma of bilateral eyes due to anterior segment anomaly, Glaucoma of bilateral eyes due to combination of mechanisms, Glaucoma of bilateral eyes due to iris anomaly, Glaucoma of childhood, Glaucoma of left eye due to anterior segment anomaly, Glaucoma of left eye caused by drug, Glaucoma of left eye, Glaucoma of left eye due to combination of mechanisms, Glaucoma of right eye, Glaucoma of right	Glaucoma, Glaucoma suspect	Glaucoma, Glaucoma and corneal anomaly, Glaucoma associated with anterior segment anomaly, Glaucoma associated with iridocorneal endothelial syndrome, Glaucoma associated with lens disorder, Glaucoma associated with ocular disorder, Glaucoma associated with ocular inflammation, Glaucoma associated with ocular trauma, Glaucoma associated with systemic syndromes

	eye caused by drug, Glaucoma of right eye due to anterior segment anomaly, Glaucoma of right eye due to combination of mechanisms, Glaucoma of right eye due to lens disorder, Glaucoma suspect, Glaucoma with increased episcleral venous pressure, Glaucoma with intraocular hemorrhage		
Cataract	Cataract, Cataract associated with radiation, Cataract due to inflammatory disorder, Cataract finding, Cataract glaucoma syndrome, Cataract in systemic disorders, Cataract of bilateral eyes due to diabetes mellitus, Cataract of eye due to diabetes mellitus, Cataract of eye due to diabetes mellitus type 1, Cataract of eye due to diabetes mellitus type 2, Cataract of left eye, Cataract of left eye due to and following trauma, Cataract of left eye due to diabetes mellitus, Cataract of lens capsule of left eye, Cataract of lens capsule of right eye, Cataract of posterior subcapsule of bilateral eyes, Cataract of posterior subcapsule of left eye, Cataract of posterior subcapsule of right eye, Cataract of right eye, Cataract of right eye due to and following trauma, Cataract of right eye due to diabetes mellitus, Cataract secondary to ocular disease, Cataract with neovascularization	Cataract, cataracts	Cataract, Cataract and microcornea syndrome, Cataract associated with radiation, Cataract due to inflammatory disorder, Cataract finding, Cataract fragments in the eye post cataract surgery, Cataract glaucoma syndrome, Cataract in systemic disorders, Cataract of bilateral eyes caused by drug, Cataract of bilateral eyes due to and following trauma, Cataract of bilateral eyes due to diabetes mellitus, Cataract of eye due to diabetes mellitus, Cataract of eye due to diabetes mellitus type 1, Cataract of eye due to diabetes mellitus type 2, Cataract of left eye, Cataract of left eye due to and following trauma, Cataract of left eye due to diabetes mellitus, Cataract of lens capsule of left eye, Cataract of lens capsule of right eye, Cataract of lens capsule of left eye, Cataract of left eye due to inflammatory disorder, Cataract of posterior subcapsule of bilateral eyes, Cataract of posterior subcapsule of left eye, Cataract of posterior subcapsule of right eye, Cataract of right eye, Cataract of right eye due to and following trauma, Cataract of right eye due to diabetes mellitus, Cataract secondary to ocular disease, Cataract with neovascularization
Age-Related Macular Degeneration	Age-related exudative macular degeneration of left eye, Age-related exudative macular degeneration of right eye, Age-related macular degeneration, Age-related nonexudative macular degeneration of left	Macular degeneration	Age-related exudative macular degeneration of left eye, Age-related exudative macular degeneration of right eye, Age-related macular degeneration, Age-related nonexudative macular degeneration of left eye, Age-related nonexudative macular degeneration of right eye

eye, Age-related
nonexudative macular
degeneration of right eye
