other common eye diseases have them; why not glaucoma? That is, codes indicating disease severity. ICD-9 severity codes already exist for macular degeneration, diabetic retinopathy, cataract and even retinopathy of prematurity. Finally, effective Oct. 1, 2011, new ICD-9 codes allow staging of glaucoma into mild, moderate and severe disease based simply on the physician’s analysis of the printout of the visual field in the patient’s worse eye. The new codes are listed below and are signified by a large dot (●).

Acknowledging Differences
Given the great variability in costs of care and resource utilization among glaucoma patients, glaucoma care will be targeted for the use of potential value-based modifiers in coming years. To prepare for this possibility, ICD-9/ICD-10 codes reflecting disease severity will allow for stratification of a patient population in a practice.

Consider two patients, both under the care of a single physician. Both patients have primary open-angle glaucoma. The first has minimal damage that requires one medication and follow-up visits twice a year; the second has advanced disease that requires multiple medications, numerous visits and surgery. Under the old system, payers and researchers who used claims-based data were unable to distinguish between these two patients, as both would have been coded with 365.11. But with the new codes, their physician can accurately indicate each patient’s disease severity.

Step One: Code by Type
To get started, first code the type of glaucoma (only those listed below require the add-on staging codes):

- 365.10 Open-angle glaucoma, unspecified
- 365.11 Primary open-angle glaucoma
- 365.12 Low-tension glaucoma (also used for normal-tension glaucoma)
- 365.20 Primary angle-closure glaucoma, unspecified
- 365.23 Chronic or primary angle-closure glaucoma
- 365.31 Steroid-induced glaucoma
- 365.52 Pseudoexfoliation glaucoma
- 365.62 Glaucoma associated with ocular inflammations
- 365.63 Glaucoma associated with vascular disorders
- 365.65 Glaucoma associated with ocular trauma

Step Two: Add Stage
Second, determine the severity of the glaucoma in the worse eye, based on the new ICD-9 staging definitions (see “Visual Fields Examples”):

1. Mild, no VF loss on white-on-white perimetry.
   - 365.XX (type of glaucoma)
   - 365.71

2. Moderate, VF loss in one hemisphere only and not within 5 degrees of fixation. (Hatch marks on horizontal and vertical meridians indicate 10-degree increments.)
   - 365.XX (type of glaucoma)
   - 365.72

3. Severe, with VF loss within 5 degrees of fixation.
   - 365.XX (type of glaucoma)
   - 365.73

4. Severe, with VF loss in both hemispheres.
   - 365.XX (type of glaucoma)
   - 365.73

Visual Fields Examples

1. Mild, no VF loss on white-on-white perimetry.
   - 365.XX (type of glaucoma)
   - 365.71

2. Moderate, VF loss in one hemisphere only and not within 5 degrees of fixation. (Hatch marks on horizontal and vertical meridians indicate 10-degree increments.)
   - 365.XX (type of glaucoma)
   - 365.72

3. Severe, with VF loss within 5 degrees of fixation.
   - 365.XX (type of glaucoma)
   - 365.73

4. Severe, with VF loss in both hemispheres.
   - 365.XX (type of glaucoma)
   - 365.73

(1) Mild, no VF loss on white-on-white perimetry.
(2) Moderate, VF loss in one hemisphere only and not within 5 degrees of fixation. (Hatch marks on horizontal and vertical meridians indicate 10-degree increments.)
(3) Severe, with VF loss within 5 degrees of fixation.
(4) Severe, with VF loss in both hemispheres.

Field abnormalities on any white-on-white visual field test, or abnormalities present only on short-wavelength
automated perimetry or frequency-doubling perimetry)

- **365.72** Moderate-stage glaucoma (optic nerve abnormalities consistent with glaucoma and glaucomatous visual field abnormalities in one hemi-field, and not within 5 degrees of fixation)
- **365.73** Severe-stage glaucoma, advanced-stage glaucoma, end-stage glaucoma (optic nerve abnormalities consistent with glaucoma and glaucomatous visual field abnormalities in both hemifields, and/or loss within 5 degrees of fixation in at least one hemi-field)
- **365.74** Indeterminate (visual fields not performed yet, or patient incapable of visual field testing, or unreliable/uninterpretable visual field testing)
- **365.70** Unspecified, stage not recorded in chart

It is important to document the stage in the patient’s medical record. However, while the new staging definitions must be used after Oct. 1, they will not impact coverage, as current policies link to the primary diagnosis.

### Additional Changes

**Open-angle glaucoma suspects** (based on the number of risk factors: family history, race, elevated IOP, optic disc appearance and thin central corneal thickness):

- **365.01** Open-angle suspect, low risk (one or two risk factors)
- **365.05** Open-angle suspect, high risk (three or more risk factors)

**Angle-closure borderline/suspects:**

- **365.02** Primary angle-closure suspect (anatomical suspect, narrow angle)
- **365.06** Primary angle-closure without glaucoma damage (defined as angle damage such as peripheral anterior synchiae or high IOP, but without optic nerve damage)

**Primary angle-closure glaucoma:**

- **365.23** Chronic angle-closure glaucoma (angle damage plus optic nerve damage)

### Origin of the Staging System

The new glaucoma staging system was developed by an American Glaucoma Society (AGS) work group, which included Drs. Fellman and Mattox. The work group then enlisted comprehensive ophthalmologists, optometrists and a few glaucoma specialists to evaluate and test the accuracy of the severity levels, using real-world cases prepared by Joshua D. Stein, MD, assistant professor of ophthalmology and visual sciences at the University of Michigan in Ann Arbor. Dr. Stein analyzed the responses and found excellent agreement among participants, who also found the system easy to use.

After refinements required by the government’s ICD-9-CM Coordination and Maintenance Committee, the glaucoma staging codes were approved to be implemented on Oct. 1. They will be incorporated into ICD-10 in October 2013.

### Boost Your Skills

**Teaching guide.** The AGS is preparing an online Teaching Set with real-world examples of glaucoma cases. This teaching guide is designed to help you test your coding skills with the new codes. Check the AGS website ([www.americanglaucomasociety.net](http://www.americanglaucomasociety.net)) for a link.

**Meeting course.** At the Annual Meeting, the American Academy of Ophthalmic Executives is offering a coding course that will cover this material. It’s the “Coding Odyssey” (622) and it takes place on Tuesday, Oct. 25, from 11:30 a.m. to 12:30 p.m.

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