I. Indications for gonioscopy

A. Determine if patient is at risk for angle closure with dilation
B. Glaucoma diagnosis and treatment
C. Anterior chamber disease: Trauma, Tumors, Inflammation, Neovascularization

II. Contraindications and relative contraindications for performing gonioscopy

A. Worry of laceration or globe perforation
B. Recent hyphema
C. Corneal surface disease
D. EBMD

III. What you’re looking at: Anterior chamber angle structures

A. Pupil
B. Iris
C. Ciliary body
D. Scleral spur
E. Trabecular meshwork
F. Schwalbe’s line

IV. Comparison of gonioscopy lens types

A. Indirect Goniolenses
   1. 1, 2, 3, and 4-mirror lenses
   2. Suction/fluid and non-suction/non-fluid lens
v. **Procedure (a video of the procedure will be shown)**

A. Clean and disinfect the lens
   1. Wipe with 70% alcohol and then rinse with saline
   2. Soak in 1:10 bleach solution for 5-10 minutes or 2% Glutaraldehyde for 5 minutes
   3. Rinse
   4. Avoid soaking the lens in alcohol or hydrogen peroxide. It weakens the glue/seal which keeps moisture from getting inside.

B. Add Celluvisc to the concave surface of a suction gonioscopy lens
   1. Fill 1/3 to 1/2 of the “bowl” with solution
   2. Dealing with bubbles in the solution
      a) Bubbles will ruin your view
      b) Carefully scoop out the bubble with the edge of a tissue

C. May use a drop of artificial tears for placement of a non-suction gonioscopy lens

D. Adjust the slit lamp
   1. Illumination system at 0-10° from microscope
   2. Medium parallelepiped
   3. Start with about 15X magnification
   4. Align the patients canthus properly

E. Instill local anesthetic in both eyes

F. Place goniolens on the patient’s cornea
   1. Have the patient look up
   2. Hold the lens with the index finger and thumb
   3. Pull down on the lower lid with your opposite hand and rotate the lens into place on the sclera
   4. Have the patient SLOWLY look straight ahead
   5. Center the lens on the patient’s cornea

G. Perform the examination
   1. The mirror must be 180° from the angle you are viewing
   2. Rotate the goniolens if necessary
   3. The light should be perpendicular to the angle you are evaluating

H. To remove the lens, break the seal by gently applying pressure through the lower lid
VI. Common errors that occur while performing gonioscopy

A. Difficulty obtaining an adequate view
   1. Poor lens centration
   2. Air bubbles between the eye and the gonioscopy lens
      a) Try to get rid of the bubble by tilting the goniolens in the direction of the bubble
      b) If the bubble is small, try to work around the bubble
      c) If you can’t get rid of the bubble, and you can’t see around it, remove and reinsert the gonioscopy lens

B. Errors in determining the proper angle structures
   1. Too much pressure on the cornea with the goniolens
   2. Bowing of the iris

VII. Recording and Coding for Gonioscopy

A. Record an abbreviation of the most posterior structure seen in each quadrant
   1. CB: Ciliary Body (grey or brown appearance)
   2. SS: Scleral Spur (bright white)
   3. TM: Trabecular Meshwork (grey-pink color to dark brown depending on pigmentary deposits)
   4. SL: Schwalbe’s Line (refractile, white line, can be identified using corneal wedge technique)

B. Iris approach: Flat, concave, or convex

C. Pigment in the TM: Grade from 0-4

D. Abnormalities

E. CPT code: 92020 (bilateral procedure)

VIII. Clinical Pearls

A. The inferior quadrant is the most open – easier to tell what anterior chamber structures are visible

B. Typically, the inferior angle has the most pigmentation in the trabecular meshwork

C. The patient is safe to dilate if the full trabecular meshwork is visible in at least half of the anterior chamber

D. Hyperopic patients are more likely to have narrow anterior chamber angles