

VISUAL ACUITY CRITERIA

Rosani Lens Project | Dispense Glasses or Refer?

VISUAL ACUITY WITHOUT GLASSES IS 20/30 OR BETTER IN BOTH EYES

- No testing, no glasses, no referral necessary

VISUAL ACUITY IS 20/50 OR WORSE IN ONE EYE OR BOTH EYES (BUT THE PATIENT CAN STILL READ ANY PART OF THE SNELLEN CHART)

- Check vision using the I-Test
- If,
 - The VA improves by at least two lines in one or both eyes, **dispense glasses**
 - The VA does not improve, **refer**

VISUAL ACUITY IS WORSE THAN 20/200 BUT PATIENT CAN COUNT FINGERS* WITH ONE OR BOTH EYES

- Check vision using the I-Test
- If,
 - The VA improves to where the patient can read some letters on the eye chart, even in just one eye, **dispense glasses. Refer** as well if final VA is still 20/200 or worse in either eye.
 - The VA does not improve, **refer**

PATIENT CANNOT COUNT FINGERS – ONLY HAND MOTION* OR LIGHT PERCEPTION* IN ONE OR BOTH EYES

- **Refer**
- If the patient has severe vision loss in one eye, but has evidence of vision in the other eye, check vision using the I-Test and dispense glasses if VA improvement is noted.

*CF = "count fingers", i.e. patient cannot read letters on the chart, but can see well enough to count fingers from 1-20 feet away

*HM = "hand motion", i.e. patient cannot see well enough to count fingers, but can see motion

*LP = "light perception", i.e. patient cannot see any shapes or motion, but can tell if light is present or not

MATERIALS

Rosani Lens Project | Materials List + Basic Room Layout

BASIC CLINICAL MATERIALS

1. I-Test screening devices (2)
2. Glasses frames (50 or 100) with protective sleeves
3. Pre-made lenses in assorted powers, sorted according to power
 - Given the need for accuracy, these lenses should be kept carefully organized into their respective refractive powers and removed from their package only as needed.
4. Snellen Visual Acuity chart (2)
5. Clipboards with patient data forms and writing pens (2)
6. 10' tape measure (2)
7. Tape for taping chart to wall and marking floor 20' from chart
8. Soft cloth for lens cleaning

CLINICAL TESTING ROOM ARRANGEMENT

1. Choose a clean, well-lit space of at least 20 feet in length from wall to wall.
2. Hang the Snellen Visual Acuity charts on the wall at an average height—approximately 5 to 6 feet. Be sure the chart is in a well-lit position, with good even lighting and minimal glare.
3. Starting from the wall where the Snellen chart is hanging, roll out the two tape measures end-to-end on the floor.
4. Place a tape mark on the floor at the position 20 feet from the chart for the patient to stand behind.

CLINIC INSTRUCTIONS

Rosani Lens Project | Clinical Protocol

STEP 1: MEASURE PATIENT'S VISUAL ACUITY (VA) WITHOUT GLASSES

1. Position patient at the measured point 20 feet from the Snellen Visual Acuity chart.
2. To test right eye visual acuity first, have patient completely cover their left eye with their hand.
3. Confirm that the patient can see the largest letters at the top of the chart, then
 - a. (If they can see the largest letters) Ask them to read the line with the smallest letters they can see. Then ask them to try to read the line below that. Record the lowest line on the chart for which a majority of letters were read (e.g. "20/60").
 - b. (If they can't see the largest letters) Ask them to count the number of fingers the tester is holding up—1,2, or 5 fingers—and move towards them along the measuring tape. Record the furthest distance at which they can count fingers successfully (e.g. "CF @ 5 ft").
4. Repeat this process on the opposite eye to measure visual acuity for the left eye.

STEP 2: MEASURE PATIENT'S REFRACTIVE ERROR AND VA USING THE I-TEST DEVICE

For detailed instructions on the I-Test, please see the package insert with the device.

1. The patient remains in the same position, 20 feet from the Snellen chart. Begin by testing the right eye.
2. On the I-Test device, close the occluder on the left side, so the patient can only see through the right side when holding the device to their face.
3. Have the patient hold the I-Test up to their face and look towards the eye chart.
4. Using their index finger, have the patient rotate the dial on the right side to adjust the lenses. Instruct the patient: "Move the dial until the chart looks as clear as possible."
 - NOTE: there may be two lens powers that the patient finds very similar—that is entirely acceptable. Choose the LEAST NEGATIVE power. Record this power for the right eye.
5. Have the patient read the lowest line possible using the I-Test at the chosen setting.
 - NOTE: if patient notices partial improvement in vision but visual acuity remains reduced, try the end-to-end I-Test arrangement for higher refractive errors
6. Repeat this process on the opposite eye to measure refractive error and visual acuity for the left eye.

STEP 3: BUILD THE GLASSES

1. Begin with one of the standard frames—confirm that the frame is undamaged.
2. Then, using the RIGHT EYE and LEFT EYE refractive measurements made by the patient with the I-Test, choose corresponding lenses to pop into the frame. Be sure to confirm that the appropriately-selected lenses are being placed on the correct side in the frame.
3. When placing the lenses in the frame, there should be a “click” as the lens goes into place.
4. Use a soft cloth to clean any dust or smudges from the lenses.
5. When both lenses are secured in the frame and clean, the new glasses are ready for testing with the patient.

STEP 4: MEASURE THE PATIENT’S CORRECTED VA WITH NEW GLASSES

1. Have the patient try on the glasses and confirm that the size and fit are comfortable.
2. Repeat visual acuity testing for the right eye, then the left eye, in the same manner as outlined in Step 1, but now with the patient wearing the glasses. Record these measurements on the patient’s data sheet.
3. Additionally, test and record the visual acuity for BOTH EYES (i.e. the patient is wearing the glasses and reading the chart, but without covering either eye—this is a nice approximation of “real world” visual function).
4. Ask the patient the subjective questions on the data sheet about whether they like the glasses, if they believe their vision is improved, etc. Record these answers on the data sheet.
5. If the patient’s measured visual acuity improvement meets the appropriate criteria (SEE “Visual Acuity Criteria”), and the patient wants the glasses, distribute the glasses to the patient.