

Visual Acuity Testing

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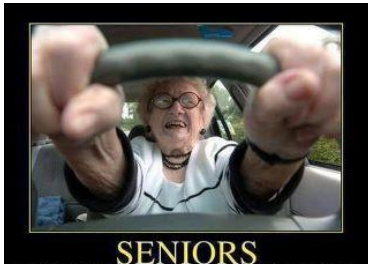
Define Visual Acuity



- The measurement of the ability of the eye **to see detail**

Vision

- The ability to see



The procedure

- Lighting
- Patient position
- Distant/near
- Occluder
- Pin-hole... what makes it better?
- Plus lens



The Hardest Acuity

- What is the most difficult acuity you have ever taken
- Were you prepared for it?
- Are children difficult?
- What do you do with the parents?
- What happens when it is taking too long?

Documentation

- Test distance
- Test target
- Pupil reaction
 - Constriction/dist
 - Dilation/near
- Correction



Robots

- Don't be a robot
- Know why you are testing a patient
- Know how the test is to be performed
- Know what is WNL
- Know how to document the findings
- Know when to test
- When in doubt...test it out

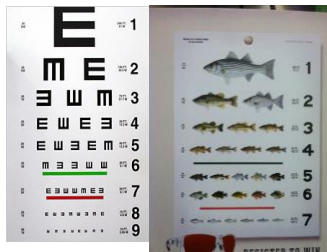
Visual Acuity

- Baseline data
- Quantification of visual status
- Sets criteria to help patient achieve better vision



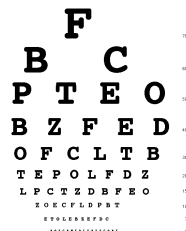
Visual Acuity

- Types
 - Near
 - Distant
- Charts
 - Snellen
- Alignment
- Conversions
- Test Distances



Types of Acuity Charts

- Snellen
- Metric (Bailey-Lovie)
- Low Vision Charts
- Illiterate Charts
 - Landolt "C" or rings
 - Tumbling "E"
 - Lighthouse charts

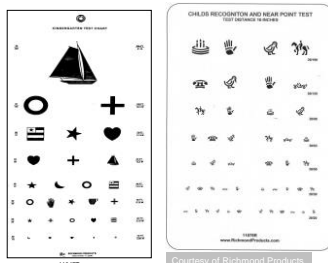


Procedure

- Always observe patient.
- No squinting. Why?
- When do you obtain pinhole acuity?
- Visual acuity better with one eye or two?
- Note any consistent pattern in the letters missed by the patient. Why?

Preschool Children

Allen Picture Chart



Snellen Fraction

- Numerator
 - Represents the testing distance in feet or meters
 - 20/____; 6/____
- Denominator
 - Represents the distance at which the letter subtends a 5-minute angle or arc in distance or meters. Also referred to as the letter size

Techniques for Testing

- Monocular and binocular
- With and without Rx
- Distance and near
- Pinhole acuity (20/30)
- Testing errors
- What happens when a patient can't see the largest letter at 20 feet?

Types of Acuity Charts

- **Snellen**
- **Metric (Bailey-Lovie)**
- **Low Vision Charts**
- **Illiterate Charts**
 - Landolt "C" or rings
 - Tumbling "E"
 - Lighthouse charts

Procedure

- **Patient unable to see the big "E"**
 - Walk up method (15/400, 10/400, 5/400)
 - Count Fingers- CF @ ____ ft
 - Hand Motion- HM @ ____ ft
 - Light Location
 - Light Perception

Near VA's



- Test distance is 16 inches or 40 cm
- Proper lighting

Pinhole

- **The pinhole test is used to confirm whether or not refractive error is the cause of decreased visual acuity.**
- **Documentation**



Pinhole Acuity

- What happens during the pinhole test?
- Why is it necessary
- Who should it be performed on



Connect the Dots!

- Listen to the patient
- Watch the patient when testing pt
- You need to know what direction to go



Force blinking
Leaning
Squinting
Turning of the head

Refractive History

- Past history of corrective lenses
- Current corrective wear...recent Rx?
 - age of correction
 - state of correction
 - quality of vision



Case History

- **This is a legal document...** write everything
- **Use the components of case Hx**
 - Chief complaint
 - Medical and ocular history
 - Patient
 - Family
 - New medications or changes in health
 - Occupation and avocation
 - Hobbies...piano teacher-vs-cross stitching

Pre-Testing

- Visual Acuity
 - Aided and Unaided
 - Distance and Near
- Letter size calibration
 - 20/200 = 87mm at 20 feet



Case History

Chief Complaint

- Reason for the patient visit recorded in Patient's own words.
- Ask all the questions necessary to aid your doctor in discovering the root cause of the patient's current condition (ie. Who, what, where, how, how long, How old is patient, pain assessment, is there anything that brings relief, last eye exam, last physical exam, illicit and legal drug use, dosage/frequency, alcohol use/amount, and patient/family medical history)

Ocular History Cont...

- ☐ Rule out specific ocular problems or conditions... ie. DES
- ✓ surgery
- ✓ injury
- ✓ vision training
- ✓ Medications (new)
- ✓ Allergies
- ✓ refractive history



A great question: Are you wearing your most current Rx?

Story of the Truck Driver

- Conditions
- Timelines



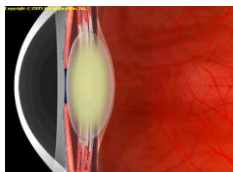
Ocular Symptoms

- ☐ Ask open ended questions and document what the patient says
- ✓ itching
- ✓ burning
- ✓ tearing
- ✓ redness
- ✓ irritation
- ✓ other symptoms



Ocular History Cont...

- Rule out specific ocular problems and conditions, such as:
 - glaucoma
 - cataracts
 - keratoconus
 - surgery
 - previous injuries



SOAPP Format

- **Subjective...** Chief Complaint
- **Objective...** test results
- **Assessment...** for the O.D. only
- **Plan...** for the O.D. only
- **Prevention...** duty to warn/counseling



Document Pain Assessment

- If the patient is in pain, you must evaluate the level of pain
- Ask if anything relieves the pain
- Ice
- Pain associated with trauma
- Penetrating injuries



Recording Visual Acuity

- Verify with your doctor
- DVA 20/ NVA 20/
CC SC CC SC



Thank you



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Thank you
