Review of Basic Ophthalmic Pretesting

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GOALS

- Provide a refresher on the workup for a basic comprehensive eye exam and a few specialized exams
- To help standardize documentation of ophthalmic data collected by technicians
- Help technician to be more efficient

Doctor's Expectations of Technicians

- Get the patient ready for the doctor as quickly, yet as accurately, as possible
- Clean exam room equipment with alcohol in front of the patient
  - Occluders
  - Phoropter **(!!)**
  - Slit lamp chin rest and forehead bar
- Notify doctor of abnormal findings from the workup

Doctor's Expectations of Technicians

- **Be available** when the doctor exits the exam room
  To receive instructions such as:
  - Instill dilating drops
  - Perform extra testing
  - Pull contact lenses and/or teach CL insertion and removal
  - Escort the patient to the optical or checkout desk
- **Assist with the clinic flow** by knowing the status of each patient (or at least the patients you worked up)
  - the patient spends the minimum amount of time possible in the clinic
  - the doctor does not have any down time

EVERY DOCTOR IS »DIFFERENT«

EFFICIENCY

- Check-in process
- Pretesting
- While the doctor is with the patient
- When doctor comes out of the exam room

EFFICIENCY

Check-in Process

Things that MUST be done by front desk before patient can be taken by technician:

- Insurance card and ID copied/scanned
- Consents signed
- Demographics confirmed
- Copay collected (depends on office policy)

- When you are available to work up a patient, check the waiting room/front desk line for patients that are filling out paperwork.
  - Don't wait on your patient to get to the front of the check-in line or fill out the history form if the REQUIRED things are complete
- If patient hasn't finished signing consents, see if you can help get it done faster by explaining the documents

EFFICIENCY

Check-in Process

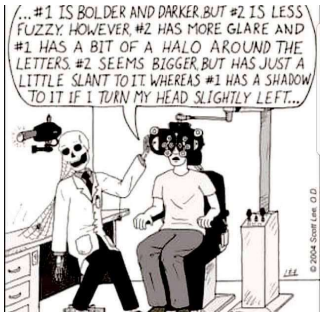
DO NOT wait for the patient to fill out a history form!

- The point of the history form is to save time for the technician and/or to give the patient something to do while they are waiting
- Skip it and ask the questions verbally
  - It only saves time if already filled out by the time the technician is ready for the patient
- Some doctors want to see the form as filled out by the patient
  - In this case, do everything you can to get the patient ready, then allow them to fill it out while you are measuring their glasses or they are waiting for the doctor after you have completed the pretesting

EFFICIENCY

During the Pretesting

- Do everything you can to minimize your time
  - Take automated blood pressure while you measure glasses
  - Type AR and lensometry readings into EMR while measuring visual acuity
    - Memorize the acuity chart to recognize when a letter is misread



EFFICIENCY

During the Pretesting

- Accuracy is important…but so is efficiency
- **FIND A WAY to be more efficient…**
  - Without making excessive mistakes
  - Without cutting corners

EFFICIENCY

While the doctor is in the exam room

Anticipate!

- Prepare paperwork for ancillary testing you know will be needed (Plaquenil exams, etc.)
- Set out contact lens case and solution if patient will need to remove or insert contact lenses
- Pull trial contact lenses if you know what will be needed
- For patients with vision plans:
  - calculate how many boxes of contacts the plan allowance will cover
  - prepare to discuss this with the patient

EFFICIENCY

While the doctor is in the exam room

Anticipate!

- Use a system to indicate which room the doctor should enter next and what is waiting for him/her in that room
  - White board
  - Flags
  - Laminated signs
  - Magnets on door or doorframe

EFFICIENCY

When the doctor walks out of the exam room

- "How can I help?"
- Have ancillary testing orders ready for doctor to fill out/sign
  or
  be prepared to fill it out with the doctor's instructions
- Be ready to conduct ancillary testing or walk patient to the area if there are designated technicians for OCT, VF, etc.
- Bring the spec Rx or CL Rx from the printer
- Get any samples recommended by the doctor

EFFICIENCY

- Keep track of how long it has been since drops were instilled
  - Mark dilation time somewhere OUTSIDE the exam room for easy access
  - Let the doctor know when the patient is ready for the dilated fundus exam

  ***In some clinics, drops are instilled before the doctor sees the patient, due to standing orders, so the above will take place as part of the pretesting.**
- Utilize exam rooms efficiently by moving dilating patients to another area and putting the next scheduled patient (or a dilated patient that is now ready) in the room

EFFICIENCY

When the doctor walks out of the exam room

- **Politely** interrupt pretesting one patient to get another patient dilated or in line for ancillary testing, if necessary
  - Listen for the doctor to exit a room
- When the visit is complete, walk the patient to the optical and/or the checkout desk

OPHTHALMIC PRETESTING

Case History
Entrance Tests

OPHTHALMIC PRETESTING

Entrance Tests

- Visual Acuity (VA)
- Autorefraction (AR)
- Keratometry (K's, K readings)
- Lensometry
- Confrontations
- Extraocular Motilities (EOM's)
- Pupils
- Tonometry
- Vital Signs

VISUAL ACUITY (VA)

- ALWAYS check VA ***before*** doing anything else to the eye
  - Use the correction worn to the office (specs, contacts, or no correction)
  - Medicolegal reasons

VISUAL ACUITY (VA)

- ALWAYS note sc or cc and type of correction
  - sc = without correction
  - cc = with correction
  - type of correction
    - "w/gl" or "w/cl"
    - Habitual correction is that which the patient normally uses
      - usually the specs/cl's worn to the office
      - denoted as "hab specs" or "hab cl's"

VISUAL ACUITY (VA)

- *ALMOST* ALWAYS measure right eye first (some exceptions, especially in pediatrics clinic)
  - Exception: you know that VA is significantly less in one eye than the other.
    - Measure the poor eye first to avoid memorization of rows that we only have 1 line for,
    - **Especially** if the visit is to determine if VA has improved in that eye due to treatment, etc.

VISUAL ACUITY (VA)

- Do NOT allow squinting, but do allow head turns or tilts **and document it**
  - Document squinting if you can't get them to stop
- Watch for "cheating"
  - Have them read a line backwards if you think they have it memorized
  - Watch for mothers, siblings, and/or relatives prompting or correcting patient

VISUAL ACUITY (VA)

- Pinhole if measure is worse than 20/20
- Measure near vision (NVA) with **habitual** correction if patient is over age 40
- Need unaided VA *somewhere* in the overall chart, so **quickly** check it on new patients if it is not the habitual correction
  - "<20/400" is adequate documentation for unaided VA if patient has specs or cl's with them

VISUAL ACUITY (VA)

When checking VA

- If patient can see at least the big E from the appropriate distance:
  - Block off a vertical column to make it faster
  - Block off entire line of the smallest letter they got correct
  - More than ½ correct = go to next smaller line
  - Less than half correct = stop
  - Encourage guessing
    - Don't accept "I can't see it" until you have urged guessing
    - We are not measuring what they can ***easily*** see or what letters they are ***sure*** they can get correct…we are looking for the threshold…the minimum legible

VISUAL ACUITY (VA)

Documentation

- smallest line read with at least ½ the letters correct
  - minus the number missed on that line,
  - plus the number correct on the next line
  - Followed by pinhole acuity
- Example:
  OD $20/25^{-1+2}$ ph $20/20^{-1}$
  OS $20/40^{+1}$ ph 20/25

VISUAL ACUITY (VA)

Progression of VA measurements for patients UNABLE to see the big E

- Decrease the distance to the chart
- Count fingers
- Hand motion (HM)
- Light projection (Lproj or LP w/ proj)
- Light perception (LP)

VISUAL ACUITY (VA)

Decrease viewing distance

Walk the patient toward chart **or** move chart toward the patient

- Most useful in low vision clinic
- Documentation:
  - distance in feet from chart to pt's eyes, over the size of line
    with ½ or more letters read correctly
  - Examples: **10/120**, **5/200**, or more likely **X/400**
    (distance at which patient can first make out the big E)

VISUAL ACUITY (VA)

Decrease viewing distance

- Tips:
  - Ceiling tiles are usually 4 feet x 2 feet
  - Be aware of distances in mirrored rooms!
    - Must measure the distance from patient's eyes to the mirror **then ADD** distance from mirror to chart

VISUAL ACUITY (VA)

Count Fingers

- Farthest distance at which patient can accurately count your fingers
- Documentation:
  - CF @ 6 ft (most common)
  - 6 ft CF
    similar to the common notation of 20/acuity level
- Some clinics/institutions don't want this method used for VA

VISUAL ACUITY (VA)

Hand Motion (HM)

- Farthest distance at which patient can detect whether or not you are waving your hand
- Only use if patient unable to count fingers right in front of the eyes
- Documentation:
  - HM @ 1ft
  - 1 ft HM

VISUAL ACUITY (VA)

Light Projection (Lproj or LP w/proj)

- Rarely used – often skip to light perception
- Only use if unable to detect hand motion
- Pt determines the direction a light is coming from
- Use a transilluminator
- Must be careful that better eye is COMPLETELY blacked out
- Document as Lproj, LP c proj, or LP w/proj

VISUAL ACUITY (VA)

Light Perception (LP)

- Patient can tell if light is off or on, but not the direction from which it is shining
- Must be careful that better eye is COMPLETELY blacked out
- Document as LP or NLP (No light perception)
  - NLP denotes a COMPLETELY blind eye
  - sometimes you must take the patient's word for it because of difficulty completely eliminating input to the other eye

AUTOREFRACTION (AR)

- Provides a rough estimate of refractive error/glasses prescription
  - and a starting point for the refraction
- The patient can blink, but should open eyes wide between blinks
  - Slightly squinting and narrow eyelid openings can induce cylinder
- Note if the mires are distorted
- Always document + or -
  - it is not acceptable to leave off the plus, EVEN for the add

AUTOREFRACTION (AR)

- Use MINUS CYL for optometry and PLUS CYL for ophthalmology
  - **Keep cyl documentation consistent throughout the CURRENT visit**
  - Can be converted by hand without going back to the instrument to reprint

Starting with minus cyl : **+1.00-2.25x095**

- Add the sphere and cyl: +1.00 + (–2.25) = –1.25 sphere
- Change the sign of the cyl: from –2.25 to +2.25
- Change the axis 90 degrees: from 095 to 005
- Above measurement changed to plus cyl: **–1.25+2.25x005**

AUTOREFRACTION (AR)

Converting from plus cyl to minus cyl

- add the sphere and cyl to get the new sphere
- change the sign of the cyl
- then change the axis by 90 degrees

These 2 prescriptions result in EXACTLY THE SAME spectacle lens

+2.75+1.50x100

▼

+2.75 + (+1.50) = +4.25

▼

+1.50 ⇨ -1.50

▼

100 ⇨ 010

▼

+4.25-1.50x010

AUTOREFRACTION (AR)

- ALWAYS document using AT LEAST 3 digits for each field
  - Helps decrease transcription errors
  - Example: +0.50-1.00x005 NOT .5 -1.0 x 5
  - If cyl is 0.00, then document as "DS" or "sphere" and leave axis blank

-2.00 DS NOT -2.00-0.00x000

KERATOMETRY (K's, K readings)

- Measures the curvature of the cornea
- Usually taken by autorefractor
- If the patient will be refracted by the doctor OR fitted in contact lenses, put the autok readings in the chart
- If the data is collected, it should be documented.
  - BUT, don't let documenting cause the clinic to get backed up

LENSOMETRY

- Measures the power of spectacle lenses
  - Can also measure prism
  - Can also locate the optical center of the lens
- This is a good time to take automated BP (EFFICIENCY!)
- ALWAYS measure the patient's glasses – do NOT copy last refraction or last prescription
  - We need to know the Rx through which VA was measured
  - Pt may have gotten new specs elsewhere since they were last in our clinic
  - Pt may have gotten new specs mixed up with old specs
  - Specs may not have been made correctly

LENSOMETRY

- Check for a bifocal, regardless of age
  - EVEN IF patient tells you they don't have one
  - Progressives have laser markings indicating type and power of PAL
- ALWAYS document using AT LEAST 3 digits for each field
  - Helps decrease transcription errors
  - Example: +0.50-1.00x005 NOT .5 -1.0 x 5
  - If cyl is 0.00, then document as "DS" or "sphere" and leave axis blank

    -2.00 DS NOT -2.00-0.00x000

CONFRONTATIONS

- Very rough test of peripheral vision/visual field
- Only effective for **substantial** visual field losses
- Finger Counting (preferred)
  - Examiner sits arm's length from and eye level with the patient
  - Use 1, 2, or 5 fingers
  - Do not move or wiggle your fingers
  - Fingers should be midway between examiner and patient
    - present fingers in mid-periphery
    - If consistently unable to see fingers in a certain quadrant, slowly move them toward fixation until patient can see/count them
  - Document as FTFC (full to finger counting) or restricted in _____ quadrant

CONFRONTATIONS

Screening visual field

- For patients unable to count fingers OR if angle of vision needed for driver's license vision evaluation
- Use a red capped bottle, your finger, or a fixation target
- Use your other hand or a second fixation target to keep them looking straight ahead
- Test horizontal and vertical meridians and the 4 quadrants
  - Normal field of vision is 90 degrees temporally, 60 degrees nasally and superiorly, and 70 degrees inferiorly, from the fixation point*

*Ophthalmic Professional, Volume: 6, Issue: September 2017, page(s): 18, 19

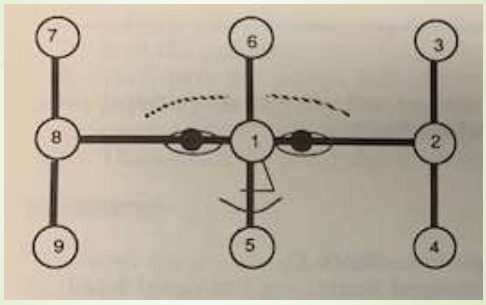
CONFRONTATIONS

Screening visual field

- Documentation
  - "Full" or "appears full from non-seeing to seeing"
    - If NOT full, document as "restricted in _____ quadrant"
  - X degrees to the right and left of fixation (for driver's license form)

EXTRAOCULAR MOTILITIES (EOMS)

- Assesses the range of motion of each eye and conjugate eye movements
- Fixation target: penlight, transilluminator, parrot stick, pen tip, fingertip
- Instruct patient to tell you if they feel significant pain or if they see double at any point
- Start with fixation target straight ahead of patient's eyes (primary gaze)
- Move target in an H pattern
  - Moves the eyes into the 6 cardinal positions of gaze
  - The cardinal positions of gaze require each extraocular muscle in each eye to work at some point in time
- Note any point at which eyes appear misaligned

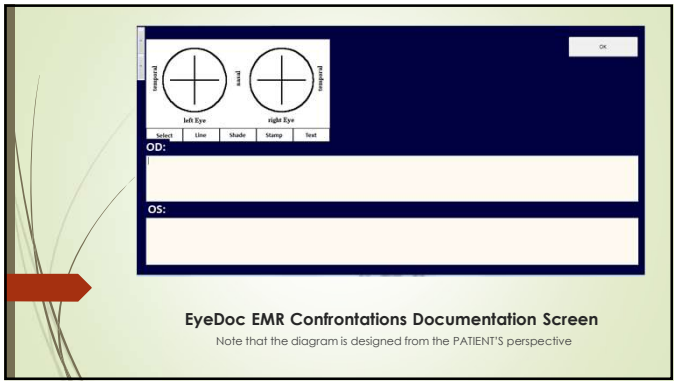


Extraocular Motility testing

EXTRAOCULAR MOTILITIES (EOMS)

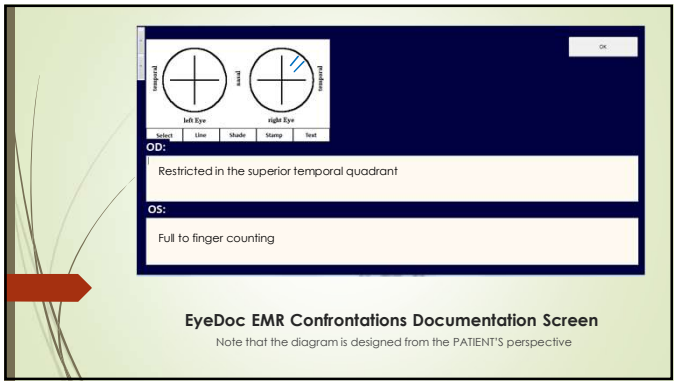
- Documentation
  - Full OU
  - SAFE (smooth accurate, full, extensive)
  - Full OD, OS lag in R gaze
  - Full OU, diplopia in upper L gaze
  - Draw findings on preprinted diagram
- Notify doctor of abnormal results

EyeDoc EMR Exam Findings screen



EyeDoc EMR Confrontations Documentation Screen

Note that the diagram is designed from the PATIENT'S perspective



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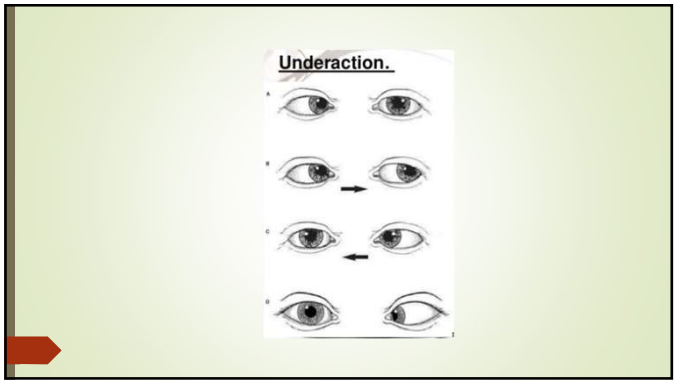
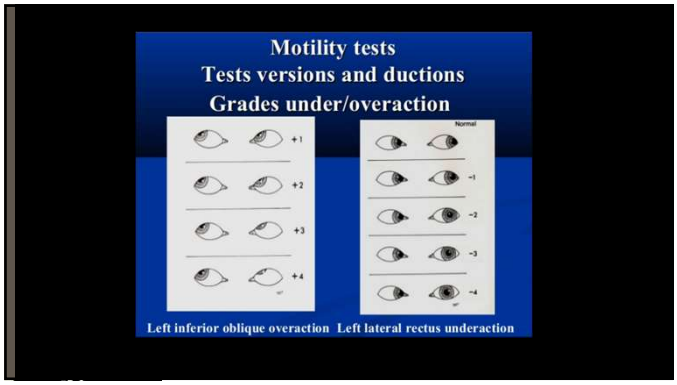




Pupil Testing

Assesses the nerves responsible for pupillary function

- Abnormalities can reveal serious neuro-ophthalmic and retinal disease
  - optic nerve injury or inflammation
  - oculomotor nerve damage
  - brain stem lesions
  - Retinal vein or artery occlusions
  - retinal detachment
  - increased intracranial pressure
  - …and many more
- Can aid in diagnosis and management of many conditions

Pupil Testing

Procedure

- Use transilluminator or bright penlight
- Remove glasses
- Fixate on a distance target
- Stand off to the side
- Observe pupils in normal room illumination and in dim light
  - Expected findings:
    - Symmetrical size (bright and dim light)
    - Symmetrical shape (round)
    - Similar location (central)
  - Note any deviation from the expected

Pupil Testing

Procedure

- Evaluate the direct and consensual responses to light
  - **Direct** pupillary light reflex ≡ the constriction of a pupil due to receiving increased illumination
    - Point the light into the **right** eye for 2-3 seconds and note the reaction of the **right** pupil
  - **Consensual** pupillary light reflex ≡ the change in pupil size to the eye opposite of the eye to which the light is directed (e.g., if the light is shone in the right eye, the left pupil also constricts consensually)
    - Again, point the light into the **right** eye for 2-3 seconds and this time note the reaction of the **left** pupil
  - Grade each response from 1+ to 4+

Pupil Testing

The Accommodative Response

- the constriction of the pupils due to increased focusing of the eye
  - Patient maintains distance fixation as you hold up a near target with visual detail (parrot stick, near card)
  - Instruct the patient to focus on the near target
  - Look for pupillary constriction

Pupil Testing

APD Testing Procedure

- Evaluate for a relative afferent pupillary defect (APD/RAPD)
  - Move the light between the eyes repeatedly, leaving it on each eye for 3-5 seconds. Be sure to shine an equal intensity of light into each eye.
  - After 2-3 cycles, observe the direction of response (constriction or dilation) and the size of each pupil at the moment when the light first arrives there
    - The pupil should initially constrict slightly, then may dilate a little bit as the light is held on it
    - Pupillary hippus is spasmodic, rhythmic, but regular dilating and contracting pupillary movements
  - A positive APD is when the responses of the right and left pupils are unequal during this test
    - The doctor will likely want to evaluate this himself/herself if +APD

Tim Root Video

Pupil Testing

Documentation

- Expected/normal findings
  - shape, size, direct and consensual reaction normal
  - PERRLA (pupils equal, round, and reactive to light and accommodation) or PERRL
  - 3+ D/C, no APD OU

Pupil Testing

Documentation

- Notable/abnormal findings
  - Peaked pupil
  - Anisocoria
    - Right and left pupil are different sizes
    - Sometimes a symptom of a serious problem
    - May still have normal shape, size, direct and consensual reactions
  - Sluggish or absent reaction to light OD or OS
  - +APD OD or OS

Peaked Pupil

Anisocoria

PUPIL TESTING

DO NOT DILATE THE PATIENT UNTIL YOU HAVE NOTIFIED THE DOCTOR OF ANY ABNORMAL FINDING (especially +APD)

- Once the drops have been instilled, the doctor cannot properly evaluate the pupil responses

TONOMETRY

- Measures the intraocular pressure of the eye (IOP)
  - IOP is one of the things we use to diagnose glaucoma
  - IOP is not related to or affected by blood pressure

TONOMETRY

- Types
  - Indentation tonometry
    - Shiotz
    - Pneumotonometer (combined applanation and indentation processes)
    - Tono-pen (combined applanation and indentation processes)
  - Applanation tonometry
    - Non-contact (air puff, NCT)
    - Goldmann
    - Tono-pen
  - Rebound tonometry
    - Icare® tonometer

TONOMETRY

- Measure AFTER the refraction
  - Exception: NCT
  - Tono-pen and Goldmann can cause mild abrasions on the cornea that can affect vision and make refraction difficult
- SKIP if patient has an eye injury, foreign body, or active corneal disease

TONOMETRY

Documentation

- Instrument used
- Measurement followed by "mm Hg"
- Time of day the measure was taken

  NCT
  OD: 18 mm Hg
  OS: 17 mm Hg @2:43 pm

- Flag/notify doctor if above 21 mm Hg

TONOMETRY

Tono-pen Procedure

- Use great care when handling the instrument
  - The tip is extremely sensitive and easy to damage
  - Repairs can cost a lot and take a long time to complete
  - Always store with a tip cover on the instrument
- Use a new tip cover for each
- Instill one drop of anesthetic in each eye
- Instruct patient to focus on a distant object straight ahead

TONOMETRY

Tono-pen Procedure

- **While taking the measurement**
  - Instruct patient to keep BOTH eyes open wide
    - "try not to squeeze"
    - Keeping the opposite eye open helps a lot with fixation
  - Encourage patient to breath normally or take deep breaths
  - Use the headrest if patient keeps backing away from you
  - Do not apply pressure to the globe

TONOMETRY

Tono-pen

- **Can be used with patient in a reclined position if necessary**
  - Older child who tries to grab examiner's hands
  - Younger child cradled in parent's lap
- **Repeat if measure is not within 5% accuracy**
  - If unable to obtain a measure at 5%, document the percentage after the reading
    Example: OD: 12 mm Hg @ 10%

VITAL SIGNS

- **The Big Four**
  - blood pressure
  - pulse
  - body temperature
  - respiratory rate
- Body temperature and respiratory rate are not generally measured in eye care, although there are exceptions
  - OMD performing a history and physical (H&P) before surgery
  - some eye infections, especially in children

VITAL SIGNS

Blood Pressure

- Denoted as a fraction with Systolic pressure over Diastolic pressure
  - Systolic blood pressure (the top number)
    Indicates how much pressure the blood is exerting against the artery walls when the heart beats
  - Diastolic blood pressure (the bottom number)
    Indicates how much pressure the blood is exerting against the artery walls while the heart is resting between beats
- Document which arm or wrist and position of patient
  Example: 122/76 right arm sitting
- Notify doctor of abnormal findings
- Check with doctor before using phenylephrine (ESPECIALLY 10%) when dilating a patient with high blood pressure

Blood Pressure Categories

American Heart Association | American Stroke Association

BLOOD PRESSURE CATEGORY	SYSTOLIC mm Hg (upper number)		DIASTOLIC mm Hg (lower number)
NORMAL	LESS THAN 120	and	LESS THAN 80
ELEVATED	120 – 129	and	LESS THAN 80
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 1	130 – 139	or	80 – 89
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 2	140 OR HIGHER	or	90 OR HIGHER
HYPERTENSIVE CRISIS (consult your doctor immediately)	HIGHER THAN 180	and/or	HIGHER THAN 120

heart.org/bplevels

VITAL SIGNS

- **Pulse**
  - Document if your automated BP cuff measures it
  - No need to manually measure it unless your doctor specifically requests it
- **Pain**
  - For our purposes, limit it to pain in or around the eye
  - Scale of 1-10
    10 = the worst pain the patient has ever felt

OPHTHALMIC PRETESTING

Case History

- Chief Complaint (CC)
- History of Present Illness (HPI)
- Last eye exam (LEE)
- Ocular History (OH)
- Medical History (MH)
- Medications
- Allergies
- Family History (FH)
- Social History (SH)

CASE HISTORY

Chief Complaint (CC)

- Very short phrase with no descriptions
- The main reason the patient is in the clinic today
  - "What brings you in to get your eyes checked?"
- You may need to elicit it from them, particularly if they say something like, "It's just time" or "yearly exam"
- **NEVER** use the word routine, even if the patient says it
  - Insurance implications

CASE HISTORY

Chief Complaint (CC)

Examples:

- Blurry vision
- Red eye
- Eye infection
- Eye pain
- Dry eyes
- Broken glasses
- Contact lens discomfort/problem
- Needs more contacts

CASE HISTORY

Chief Complaint (CC)

More Examples:

- Diabetic eye exam
- Plaquenil eye exam
- Referred by Dr. _____ for _____
- Following patient for cataracts/AMD/strabismus, etc (if annual exam)
- Follow-up on corneal ulcer/eye infection/dry eyes, etc. (if pt was seen within the last few months and told to return by doctor)

CASE HISTORY

History of Present Illness (HPI)

- This is where you expand on the CC
- **But first:** ask about their last eye exam (LEE)
  - When, where and with whom
  - Add any comments they make about it
    "I was told I have the beginnings of cataracts."
- Elements of the HPI
  - Location
  - Quality
  - Severity
  - Timing
  - Context
  - Modifying factors

HISTORY OF PRESENT ILLNESS (HPI)

- Try to use brief sentences that touch on several of the HPI elements

DVA a little blurry OU with specs intermittently for about 6 months, especially when driving at night

- Captures 5 of 6 HPI elements:
  - Distance vision — location
  - A little blurry — severity
  - OU — location
  - With specs — modifying factor
  - Intermittently — timing
  - About 6 months — timing
  - Driving at night — context

HISTORY OF PRESENT ILLNESS (HPI)

Recommended questions for some common chief complaints:

- **Red eye and/or eye infection**
  - Which eye
  - When did it start
  - Do you wear contact lenses/sleep in your contacts
  - What were you doing when you first noticed symptoms
  - Any discharge
    - Mucus or watery
    - Color of mucus discharge
  - Any trauma
    - Specific incident where something got into the eye

HISTORY OF PRESENT ILLNESS (HPI)

Recommended questions for some common chief complaints:

- **Eye pain/discomfort**
  - Which eye
  - When did it start
  - Do you wear contact lenses/sleep in your contacts?
  - Any trauma?
    - Specific incident where something got into the eye?
  - Describe the pain/discomfort
    - Gritty, sharp pain, dull ache, eye strain, burning, itching, etc.
  - What are you usually doing when you notice the symptoms

HISTORY OF PRESENT ILLNESS (HPI)

Recommended questions for common chief complaints:

- **Diabetic Eye Exam**
  - Last Eye Exam:
  - Year diabetes was diagnosed:
    (NOT "about 10 yrs ago," but rather "about 2009")
  - Doctor managing diabetes:
  - Last blood glucose reading:
  - Last HgbA1c:
  - THEN list any problems with vision/specs, etc.

HISTORY OF PRESENT ILLNESS (HPI)

Recommended questions for common chief complaints:

- **Plaquenil Eye Exam**
  - Dose of Plaquenil (= hydroxychloroquine) and frequency
  - Year (and month, if known) the medication was first started
  - Disease for which medication is taken
  - Doctor who prescribes the medicine – the eye doctor will need to send them a report
    - Pt is on 200mg Plaquenil twice a day since 3/2016 for lupus, prescribed by Dr. Vasandani

HISTORY OF PRESENT ILLNESS (HPI)

Plaquenil Eye Exam

- Ancillary testing
  - OCT of the retina with autofluorescence
  - Central 10-2 visual field
  - Amsler grid
    - No longer recommended for monitoring Plaquenil patients
    - Ask the doctor if he/she wants it done for Plaquenil patients and conduct it during screening if so

OCULAR HISTORY

- List previous diagnoses from your clinic here
- Documentation for new patients:
  - Wears glasses/cl's
  - No eye surgeries (or list the ones they have had, especially cataract surgery and by whom)
  - List any significant eye injuries or trauma

MEDICAL HISTORY

- List medical diagnoses here
- Work on this list as you review the medications
- Surgeries, medications, and allergies are in this category

MEDICATIONS

- For new patients
  - Ask about eye drop use
  - Ask for a list of current medications
- For established patients:
  - Go over each medication from the last visit
  - DO NOT simply ask if any medicines have changed since the last visit
    - "Are you still taking _____?"

ALLERGIES

- Mostly concerned about medication allergies
- For new patients:
  - List medication and the reaction patient has to it

    Examples:
    - Penicillin (PCN) – anaphylaxis
    - Sulfa drugs – hives
  - If none, document as **NKDA** (no known drug allergies) or **NKMA** (no known medical allergies)
- For established patients:
  - Go over each allergy from the last visit
    - "I show you are allergic to _____. Is that correct?
    - Any other drug allergies?

FAMILY HISTORY

We are mostly concerned about family **ocular** history

- Glaucoma
- Macular degeneration
- Retinal detachment
- Blindness
- Strabismus – an eye that turns in or out
- Amblyopia – one eye that doesn't see as well as the other even with glasses

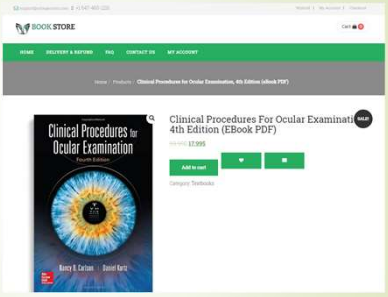
Only interested in blood relatives

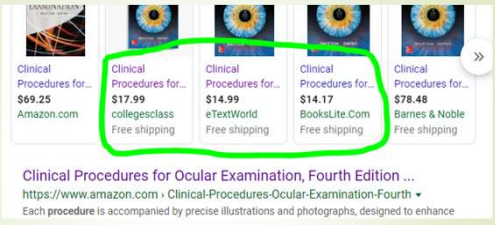
SOCIAL HISTORY

- Occupation/grade in school
- Hobbies
- Tobacco Use
  - Number of cigarettes per day and number of years of smoking
- Alcohol consumption
  - Number of drinks per day or week
- Recreational drug use
- Living arrangements
- Driving status

Recommended Book

Provides detailed, step-by-step procedures for a comprehensive battery of techniques used in the examination of the eye.





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