PhenX Toolkit

Data Collection Worksheet

Please Note: The Data Collection Worksheet (DCW) is a tool to aid integration of a PhenX protocol into a study. The PhenX DCW is not designed to be a data collection instrument. Investigators will need to decide the best way to collect data for the PhenX protocol in their study. Variables captured in the DCW, along with variable names and unique PhenX variable identifiers, are included in the PhenX Data Dictionary (DD) files.

Measuring Intraocular Pressure Using the TONO-PEN® XL.

Patient Preparation

The Ocu-Film located on the tip of the TONO-PEN® XL contains natural rubber LATEX which may cause allergic reactions. Question patients about allergies to Latex before examining them with the TONO-PEN® XL.

To prepare a patient for an IOP measurement:

1. Instill a drop of topical anesthetic onto the eye to be examined.

2. Position the patient, seated or supine, in front of a fixation target; or have the patient fixate on a point of reference (i.e. ear, nose, distant object) to minimize eye movement.

Note: The TONO-PEN® XL will function in any stable position.

Patient Examination

To Perform an IOP measurement:

1. Instruct the patient to look straight ahead at the fixation target with his/her eyes fully open.

2. Hold the TONO-PEN® XL unit as you would a pencil.

3. Position yourself to facilitate viewing of the probe tip and patients cornea where contact will be made. For normal corneas, central corneal contact is recommended.

4. Brace the heel of your hand on the patients cheek for stability while holding the TONO-PEN® XL unit perpendicular to and within ½ inch of the patients cornea.

5. To initiate an IOP measurement, depress the Operators Button once, and only

once.

- Initially you will see a brief display of 18.8.8.81. This is a self-test of the LCD (Liquid Crystal Display). If any of the LCD segments are not displayed, the TONO-PEN® requires service.
- If a momentary display of ICALI is seen, followed immediately by a single row of dashes [- - -], it indicated that the TONO-PEN® requires calibration before it will measure.
- If a double row of dashes is seen and a "beep" tone is heard, it indicates that the TONO-PEN® is ready to measure IOP. Proceed with applanation within 15 seconds.

6. Once active, after [====] is displayed and a "beep" tone is heard, touch the TONO-PEN® XL unit to the cornea lightly and briefly, then withdraw. Repeat several times. The corneal surface needs only to be momentarily contacted: indentation is not required and may lead to inaccurate readings.

[[tonopen_p3.jpg|TONO-PEN® XL]] [[.nl]]

7. A chirp will sound and a digital IOP measurement will be displayed each time a valid reading is obtained. The single horizontal bar at the bottom of the LCD, indicating statistical reliability, will not be displayed with each single IOP measurement.

8. After four (4) valid readings are obtained, a final beep will sound and the averaged measurement will appear on the LCD along with single bar denoting statistical reliability.

9. To take another measurement, reactivate the TONO-PEN® XL unit by pressing and releasing the activation switch as described in step 5.

10. Replace the Ocu-Film Tip Cover before using the TONO-PEN® XL unit on another patient and before storage.

Criteria for Emergency Referral

Any participant with intraocular pressure greater than 40 mm Hg should be referred immediately to a medical center. Notify the medical center by phone that the participant is on the way and that the patient has a high intraocular pressure and may need a laser iridotomy.

Criteria for Non-emergent Referral

Any participant with intraocular pressures between 21 mm Hg and 40 mm Hg or a potentially occludable angle should be referred to an ophthalmologist for a glaucoma-suspect work-up. The participant will be educated as to the seriousness of further testing and follow-up.

Protocol source: https://www.phenxtoolkit.org/protocols/view/110701