	Title:	Vision – Tonometry		
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1.0 Purpose:
The purpose of this document is to describe the standardized procedure for conducting vision assessment with the REICHERT Tonometer and Ocular Response Analyzer.

2.0 Scope:
This document is to be used by the DCS staff when conducting vision assessment with the REICHERT Tonometer and Ocular Response Analyzer with a study participant.

3.0 Responsibilities:
It is the responsibility of the DCS staff to perform the procedures as described in the current and approved version of the standard operating procedure.

4.0 Related Documents:
Not applicable

5.0 Definitions:
- **Pressure readings:** in millimeters (mm) of mercury (Hg)

- **Tonometry:** the procedure that eye care professionals perform to determine the intraocular pressure (IOP) of the fluid pressure inside the eye.

6.0 Equipment:
- REICHERT Tonometer and Ocular Response Analyzer

7.0 Supplies:
Not applicable

8.0 Procedure Steps:
Contraindications:
- Detached retina or eye surgery within last 3 months (Contraindications Questionnaire); or

- An eye infection in both eyes (Contraindications Questionnaire).

- **NOTE:** A lens implant is not a contraindication even though they can't be removed.

Tonometer
Participants should remove contact lenses, loosen tight collars and ties, and be relaxed. Operators should inform participants that nothing will touch their eyes and that they will only feel a gentle puff of air.

Check to see that the Tonometer is turned **On** using the switch on the bottom right side of the machine between the power cords. There should be a blue light at the bottom of the operator's side.

Switch ON

Step 1: At the *Interview Tab* in Onyx, look for the 'Tonometer' measurement in the list of stages. Then select **Start** in the "Actions".

Step 2: The "Tonometer: Start" window will pop up.

Step 3: **Scan** the Interview ID barcode and click on **Continue**.
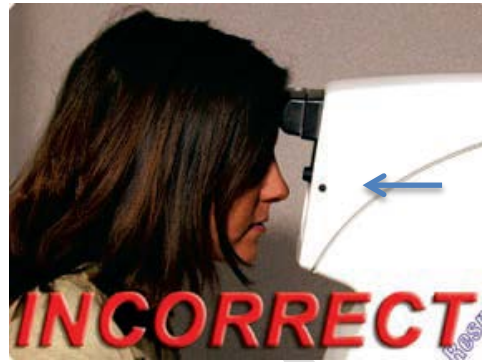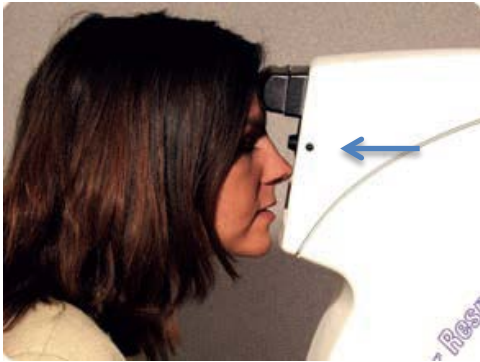

Slide Headrest

Step 4: Adjust the headrest to the right or left to enable the software to automatically determine which eye is being measured. The headrest must be positioned completely to one side or to the other in order to take a measurement. Start with the **right eye** by sliding the headrest to the participant's left.

Step 5: Set the height of the table so the canthus marks on the sides of the instrument are level with the participant's eyes using the arrows on the right side of the table on the interviewer's side.

If the participant is particularly worried about the test a demonstration puff can be done. Have them place their hand in front of the red light.

- Select **Start (If tonometer program not already open in Onyx)**

- Select **Tools**

- Select **Demo Puff**

- Select **Demo**

Step 6: Ask the participant to support his/her forehead on the headrest and to fix their eye on the green light.

The participant should lean forward slightly so that the center of their forehead rests in the middle of the rubber forehead pad. The participant's head should contact the headrest straight-on, perpendicular to the front of the instrument (not turned to the side). In addition, the participant's nose and chin should be inward, towards the front surface of the unit. The participant should be able to see the green light.

Step 7: Press the **Start** button in Onyx to start the Ocular Response Analyzer software**.**

Step 8: Choose the **Measure** tab at the top left side of the screen.

Step 9: Double click on the **participant's ID** to initialize the instrument.
To ensure fast and accurate results, operators should instruct the participant to blink a few times and hold both eyes open immediately before clicking the **Measure Response** button. Remind the patient to look directly at the green light and hold steady.

Step 10: Click on **Measure Response** on your screen. Wait until the measurement has been captured.

Step 11: **IMPORTANT:** In the top left window check the IOPg.

If the IOP is >24mm then press **Measure Response** to retake the measurement 1 more time. If the IOP is still >24 mm make a note in the comments section and continue to the next eye. The machine will only transfer one measurement, and automatically chooses the measure to keep.

> **NOTE:** The IOPg can be affected if a participant blinks during the test. Remind the participant not to blink before you retake the measurement.

If the IOP is <24 mm continue to **Step 12**.

Step 12: Slide the headrest to the participant's right to do the other eye.

NOTE: The software is expected to get both eyes tested unless specified otherwise in the contraindications questionnaire.

If a participant refuses to do both eyes for a reason not specified in the contraindications questionnaire, please click on **skip remaining measurements** and give the reason in the **comment** field in Onyx (see Step 14 below).

Step 13: When the participant can see the green light clearly with the **Left Eye**, click on **Measure Response** on your screen. Wait until the measurement has been captured.

Step 14: When both eyes are measured, click **Done** and **Close** to close the software.

Step 15: Click **Refresh** on Onyx to see the measurements on the screen, click **Next.**

Step 16: Click **Finish.** The "Tonometer: Finish" window will pop up.

Step 17: Indicate in the **comment** field in Onyx if there was anything that may have affected or influenced the measurement. Ensure that comments do not contain any personally identifying information.

Step 18: Click **Continue** to return to the status page.

9.0 Documentation and Forms:
- **CRF_DCS_0026** – Tonometry Vision Case Report Form

10.0 References:
- http://webvision.med.utah.edu/book/part-viii-gabac-receptors/visual-acuity/

F1 Revision History:

New Version #	Revision Date	Revision Author	Content Approval
3.1	2017-FEB-16	Lorraine Moss	Mark Oremus
Summary of Revisions			
Updated formatting			