IMAGE REFERENCE GUIDETRC-NW400



Tips for capturing high-quality retinal images

Position for Feet and Back

Make sure your patient is comfortable, with feet flat on the floor and back as straight as possible.

Turn Off the Room Lights

Leave the door slightly open to create the darkest environment possible. Patient should keep eyes closed 1-2 minutes to allow natural dilation. During this time, input patient information and prepare the camera.

Position Patient at the Camera

Adjust the table until the patient can lean forward and position their chin all the way in the chinrest and their forehead in firm contact with the forehead bar. Adjust the chin rest height as needed.

Ask Patient to Blink

Have the patient blink and then ask them to keep their eyes wide open.

The Ideal Image

Shows a clear view and correct positioning in the center of the image of 4 parts of retinal anatomy.











Tips for capturing high-quality retinal images



Problem: Dark Shadows/Insufficient Dilation

If your patient's pupil is smaller than the monitor target,
an insufficient amount of light will enter the eye, resulting in a dark and unreadable image. See NW400 User Guide for details.

Press CAPTURE STOP to interrupt image capture and follow the solutions below:

Solution 1: Allow the patient to sit in the dark with eyes closed (about one minute) before re-taking the image.

Solution 2: Instruct the patient to tap their fingers ("play piano") during the entire image capture process.

TIP:

- If the first eye OD (right eye) image indicates a small pupil, always let the patient close their eyes for 15-30 seconds allowing pupils to dilate again before imaging the OS (left eye).
- The pupil will constrict after each additional flash of the camera, so be mindful of the number of times you attempt image capture of each eye.

If attempts to capture a readable image of the OD (right eye) are not successful and images do not improve despite a dark environment and the solutions above, this patient may not be a suitable candidate to be successfully screened with this camera. Cancel the exam and refer patient to an eye specialist for a comprehensive screening.

To cancel, select the ERASER button to delete the OD (right eye) image. Next, select the "Patient ID" button at the top of the screen to cancel the exam.



Tips for capturing high-quality retinal images



Problem: Blinks & Lash/Lid Interferences

A blink, droopy eyelid, or lashes that obstruct a clear view of the retina can prevent interpretation of the image.

Solution

Ask the patient to blink and open their eyes wide. If the problem persists, during the next attempt, gently lift their upper eyelid by placing their finger on their eyebrows.



Problem: Patient Fixation

If the patient does not focus on the camera's internal target green "X," important retinal anatomy will be missing from the image.

Solution

Re-take the image, but this time have the patient cover their other, non-imaged eye with their hand. This helps them better focus on the "X" in the camera. Ask the patient "Can you see the green X?" If yes, remind the patient to "Stay focused on the X."



Tips for capturing high-quality retinal images



Problem: Cataract

Despite good lighting and alignment, image is mostly or completely clouded by a white haze.

Solution

Check the patient's medical record to confirm if cataracts have already been diagnosed. Screening cannot be completed with a cataract in the way – please refer your patient to an eye care specialist.



Problem: Misalignment

If the camera is not centrally aligned within the pupil you will get this eclipse looking image.

Solution

Lean patient forward and ensure that forehead and chin are placed securely.





Tips for capturing high-quality retinal images



Problem: White Artifacts on Image

Spots or smudges in the same place on images of both eyes indicate artifacts on the camera lens. Left uncleaned these can prevent interpretation of images.

Solution

If artifacts are present, clean the objective lens with a cleaning kit supplied to you by Topcon. Do not use facial tissues, paper towels, or any other unapproved materials as they may permanently scratch the lens and sensors.

NOTE: KEEP THE OBJECTIVE LENS COVERED WHEN NOT IN USE!

Topcon Support

For additional support with the camera or network, please contact: 833.DR.SCREEN (377.2733)

thssupport@topcon.com

