Tangent Screen Instructions
(for combination one and two meter screens)

Purpose of the test. Tangent Screens are used to develop a map of a patient’s visual field. This map can then be used to diagnose various disease conditions of the eye including ocular hysteria, eye-lid droop. These instructions are intended to describe examination of the patient and not the diagnostic part of the testing process.

Other Test Names: Bjerrum Screen or Tangent Screen.

Description of the test. The tangent screen test includes a black felt screen with a pattern of radians and circles sewn in black with a white button in the center, a black wand, a supply of black pins, a selection of targets, an occluder, and a score sheet. A chin rest is also recommended (see below). Contact Richmond Products for more details on the choices for each of these accessories.

Score Sheets: An additional supply of score sheets are available from Richmond Products. The score sheets provide the following target patterns:

Optional Equipment: Use of a chin rest is recommended to insure that gaze on the white button is maintained and the patient does not use their eyes or neck to ‘follow the target’. We also recommend use of Richmond’s Reversible Occluding Glasses (P/N 4523C).

Test Distance: The combination one and two meter screen permits examination at one meter (for quicker test administration) and two meters (for greater accuracy). The physician should determine the distance to be used.

Administration of the test. The patient is seated in a manner that positions the eyes at the selected distance (one or two meters) from the screen and such that they are at eye level with the center of the tangent screen target. The lights are dimmed and one eye is occluded.

The physician determines the size, color and sequence of the test objects to be used in each exam session. The assigned test object is selected and the pin is inserted into the fabric covering of the tip of the wand lengthwise, leaving only the head visible. A rotation of about 90 degrees of the examiner's wrist obscures the colored (or white) disk of the test object (so that only the black edge appears against the black screen). Alternating the rotation, the test can be made to disappear and reappear for confirmation of the patient’s responses.

The patient is instructed to maintain gaze on the white button in the center of the screen.

Starting with the top center radian, the examiner makes the object appear and moves it slowly towards the center. The object should be no more than 1-2 inches from the screen but it is recommended that the object and wand do not touch the screen to avoid damaging the felt screen. The patient is instructed to use voice indication to indicate when the object disappears (see Alternate Administration below). At the specific point where the object disappears, a black pin is inserted into the screen to mark that point. The examiner continues to move the object slowly towards the center and the patient is instructed to indicate when the object re-appears. At the specific point where the object re-appears, a black pin is inserted into the screen to mark that point. The process continues all the way to the lower extremity of the radian with the patient indicating appearance (or disappearance) of the object on that radian.
Tangent Screen Basic Operating Instructions (continued)
(for combination one and two meter screens)

The process is repeated for each radian.

At the conclusion of the test with this test object, the pattern of visible visual field based on the black pins is transferred to the score card. The test distance, size and color of the object which was used is noted.

The test procedure is then repeated for each assigned test object size and color.

Alternate Administration: In the event that the patient does not indicate that the object is visible at the top of the radian, reverse the instructions to have the patient indicate when the object does appear.

Interpretation of results: Interpretation by a trained physician is recommended.

Care of the test: The black felt screen should be kept rolled-up or covered. If debris or dust collect, the screen should be brushed gently with a camel’s hair brush. The wand and test objects should also be kept in a clean environment.

References: The following books are available from Richmond Products and provide some insight into the use and disease diagnosis from analysis of the visual field:

Easy to read, quick reference for reinforcing the clinical neuro-ophthalmic principles used in everyday practice. While the main focus is unchanged, references in every chapter have been updated from previous editions as well as some key topical areas. 228 pages. Updated Topics include: Anatomy of blood supply of the lateral geniculate nucleus, Guidelines for patients with third nerve palsy and pupillary involvement, Management of optic neuritis and its relationship to multiple sclerosis, New algorithm for patients with anisocoria. Part Number: 4662 Neuro-Ophthalmology Review Manual-5th Edition

Neuro-ophthalmic System: Clinical Procedures By Patricia Modica
Provides the clinician with the basic techniques for evaluating the inner eye. Enables clinicians to perform correct evaluations of extraocular motility problems, visual field defects, and pupillary abnormalities, in order to pinpoint areas of the brain affected by stroke, tumor or demyelination. Information on systemic neurologic disease, including easy instructions for a neurologic screening examination, is provided. The author discusses how to administer many important diagnostic tests, such as contrast sensitivity and exophthalmometry, and how to interpret abnormal findings. A generous amount of illustrations, including 16 color photographs, helps to make this a practical and indispensable clinical reference. 176 pages, Part Number: 4669 Neuro-ophthalmic System: Clinical Procedures

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