Faculty of Science – UNSW Optometry Clinic
PROTOCOL FOR PERIMETRY

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Effective date:	April 2012
Last Updated:	November 2016
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1. Purpose/background – context for development of the protocol

This protocol will provide guidelines as to the indications and procedure for visual field testing (perimetry) within the UNSW Optometry Clinic.

2. Scope – to which positions/groups does the protocol apply

This protocol applies to all students, academic, professional staff in the UNSW School of Optometry and Vision Science practising within the UNSW Optometry Clinic.

3. Protocol statement

a. Patients seen in Primary Care Clinics

Students should perform automated perimetry on their patient on indication as per Section 3b.

Student must discuss with their supervisor prior to performing automated perimetry the following:

i. Choice of instrumentation (Humphrey, Medmont, FDT)
ii. Choice of appropriate strategy (e.g., screening vs. threshold)

b. Indications for visual field examination

Confrontation is a simple test to identify gross defects. It should be performed:

- As part of a routine entrance test
- As a preliminary indication of visual field loss
- As an initial assessment of the visual field in head trauma

Automated perimetry

Automated perimetry is used for the diagnosis of suspect disease processes to aid referral and appropriate management. Suspicion of a disease may arise from clinical signs or from patient history and/or symptoms.

Automated perimetry is indicated for (but is not limited to):

- Assessment of glaucoma, or when there is suspicion or risk of glaucoma.
  - Including patients with pigment dispersion syndrome or pseudo-exfoliation syndrome.
- Investigation of intracranial disorders potentially affecting the visual pathways
  - Transient ischaemic attack (TIA)
  - Cerebrovascular accident
  - Known or suspected carotid artery insufficiency
  - Significant head trauma
  - Intracranial space occupying lesions

  - Cranial nerve abnormalities and gaze palsies
  - Atypical visual aura or differentiation of migraine symptoms
- Investigation and or differentiation of optic nerve disorders
  - Optic disc oedema, optic disc pallor
  - Afferent pupil defects or other abnormal pupil reactions
  - Known or suspected multiple sclerosis
  - Acquired colour vision loss
  - Baseline measurements of congenital optic nerve abnormalities (eg. optic nerve drusen, optic nerve pits, tilted disc syndrome)
  - Assessment of macula pathology or when there is macula pathology suspected.
- Patients with unexplained symptoms such as:
  - Unexpected loss of visual acuity
  - Transient visual loss
  - Ocular/peri ocular/retro bulbar pain
  - Subjective visual field loss or positive scotoma
- Patients taking systemic medication with possible side effects influencing peripheral vision. (E.g. Plaquenil, Chloroquine, Sabril)
- Abnormalities detected with confrontation
- The assessment of the fitness of patients to meet visual/occupational standards (e.g., driving)
- Monitoring the progression of established or previously diagnosed condition(s) associated with visual field loss

There will be situations where automated perimetry is not performed because of a patient's inability to persist with the test (for example, physical, medical or intellectual reasons). Formal testing to show the detailed characteristics of that loss may be clinically unnecessary or deferred if this is not expected to add relevant information, or may unduly delay referral or other management.

c. Location of Equipment

Standard Automated Perimeters	
Humphrey Visual Field Analyser (SWAP available)	Consult Room 1 (1.039) Consult Room 7 (1.032)
Medmont Automated Perimeter	Consult Room 13 (1.025) Consult Room 20 (1.018)
Tangent Screen	
Bjerrum Screen & targets	Low Vision Room 1 (1.044)
Amsler Grid	All consultation rooms

d. Procedure guidelines

i. Instrument and strategy choice: the most appropriate instrument and strategy are selected based on the indication for testing and previous data available.

ii. Patient positioning: patients should be positioned such they are reasonably comfortable, correctly located for the eye being tested and well centred. The non-tested eye should be occluded when appropriate. The patient should hold the response button for automated perimeters.

iii. Corrective lenses: different instruments require correction for different. The corrective lens chosen for a near working distance depends on the patient age, refractive status and whether mydriatic/cylcoplegic drops have been instilled prior to perimetry testing. The SAP instruments

require the use of full aperture lenses to be placed in the instruments' lens holders. The lens holder is to be set in the correct position.

iv. Patient details: The practitioner is to accurately enter the patient's name, date of birth and SUNIX reference number. The instrument may also require gender and ethnicity details.

v. Test instructions: instructions for the test will be specific to the instrument and testing strategy.

vi. Data Storage: testing results must be saved to the instrument. Back up of data will be performed routinely. A hard copy of the results is to be printed and included with the patient's file.

For specific instruction regarding the use of an instrument, please see individual user manuals.

4. Roles and responsibilities

a. Student Clinician

It is the responsibility of the student to follow the procedure as outlined above. The student is to consult with their supervising optometrist as to the choice of instrument and testing strategy most appropriate for the patient. The student is to raise any concerns with the supervisor regarding a patient's inability to perform any clinic test including perimetry.

It is expected that students are familiar with the use of different instruments, are able to give clear test instructions and are able to interpret the perimetry results in conjunction with the clinical presentation.

b. Supervising Optometrists

It is the Supervising Optometrists' responsibility to guide students as to the most appropriate perimetry instrument and testing strategy for each patient. The supervising optometrist will make the final decision regarding a patient's inability to perform perimetry testing and if any alternative arrangements that may be required.

The Supervising Optometrist will guide students as to the interpretation of the perimetry results.

c. Staff Optometrists

Staff Optometrists will ensure that perimetry instruments are adequately serviced and functioning. They are responsible for the routine back up of data on automated machines.

Staff Optometrists will follow the outlined protocol for perimetry during consultations with private patients. Staff Optometrists should refer to the Optometry Medicare Benefits Scheme to ensure appropriate billing of services.

d. Clinic Director

It is the role of the Clinic Director to ensure the Clinic protocols are implemented in their entirety and review protocols as required.

5. References

Optometrists Association Australia Clinical Guidelines: Visual Field Testing.2012. URL: http://www.optometrists.asn.au/LinkClick.aspx?fileticket=ZLYds7lVl%2fw%3d&tabid=123&language=en-AU

NHMRC Guidelines: For the Screening, Prognosis, Diagnosis, Management and Prevention of Glaucoma. 2010. URL: http://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/cp113_glaucoma_nov_2010.pdf