

TESTING OF PATIENTS VISUAL ACUITY USING THE SNELLEN'S TEST TYPE METHOD

PROFILE	
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1.0 Introduction

Visual acuity is the ability of each eye separately, to perceive the shape and form of objects in direct vision. It is tested at a certain given distance and checked against a known normal. The majority of patients attending the ophthalmic unit will require their visual acuity to be tested.

This is a non invasive investigatory procedure. The Snellen's test type is the most commonly used equipment for this purpose which enables a reasonably accurate measurement of the patient's visual acuity to be recorded.

If a more accurate assessment is required especially as in low vision patients or ophthalmic clinical trial patients it is likely that a Logmar visual acuity assessment will be required. (see separate procedure)

2.0 Aim / Purpose

- 2.1 To ascertain a reasonably accurate measurement of the patient's base line visual acuity using the Snellen's test type.
- 2.2 To gain an indication of any improvement or deterioration post treatment, post surgery or the patients previous visit.
- 2.3 To document evidence of the patient's visual acuity at the time of their visit

3.0 Objectives

- 3.1 The testing of visual acuity using the Snellen's test type will be carried out by an ophthalmic trained nurse, general trained nurse, health care assistant or technician who has received appropriate training in this investigation.
- 3.2 An appropriately sited Snellen's chart will be available for use, illuminated, wall mounted and positioned at the correct distance from the patient i.e. six metres away or three metres away then reflected in a suitable mirror. The room ideally should be dimly lit.
- 3.3 The patient's privacy and dignity whilst undergoing this test should be respected at all times
- 3.3 Patient's who have sustained a chemical splash to the eye or eyes will have an irrigation of the affected eye/s carried out before their visual acuity is tested
- 3.4 Local anaesthetic may have to be instilled if the eye is painful due to

trauma, prior to the test

- 3.6 Before and after patient contact the nurse, health care assistant or technician will clean their hands according to the trust hand hygiene policy to reduce the risk of cross infection
- 3.7 If a pinhole is used it should be cleaned using soap and water then thoroughly dried or cleaned using an alcohol wipe between patients.

4.0 Definitions used

- VA's – Visual acuity's
- Pinhole – A simple plastic occluder with either a single hole or a number of holes in it which is used to focus a small beam of light on the retina.
- SG test – Sheridan Gardner test, an alternative vision test

5.0 Specific detail / Procedure

- 5.1 Check the patient's name, address, date of birth and personal details with the patient and against the patients notes or casualty card.
- 5.2 Explain the investigation to the patient and the reason for undertaking it to obtain informed consent and gain co-operation, empowering the patient to make informed choices, allaying fears and anxieties.
- 5.3 Seat the patient comfortably at the correct distance from the chart to enable an accurate check to be made of the patient's visual acuity
- 5.4 Check if the patient normally wears glasses for long distance if they do check VA without glasses, then with glasses. If the patient wears contact lens check patient's VA with contact lens in place then ask the patient to remove them before their consultation. If patient has a bandage contact lens in place this should NOT be removed.
- 5.5 Ask the patient to cover one eye with either the palm of their hand, so that they do not inadvertently peep through their fingers, (instructing them not to press it) or a piece of card or commercial occluder and to read down from the top of the Snellen's chart, attempting all possible letters.
- 5.6 Check the affected eye first then the unaffected eye or Right eye then Left according to local policy encouraging and reassuring the patient throughout.
- 5.7 If the patient's VA appears poor (e.g. lower than 6/9), their long distance glasses are not a recent prescription or to negate the effects of any

uncorrected refractive problem (an unmet need for spectacles) then a pinhole should also be used to test the patients long distance VA

Note: If the patient has had recent cataract surgery their vision must be tested without using their 'OLD' glasses (glasses used prior to cataract operation)

- 5.8 Recording the Visual Acuity: Visual acuity should be recorded as a fraction
- 5.9 Record the distance at which the eye is being tested usually 6 metres over / The last line read by the patient. The number for this is indicated on the Snellen chart above the row of letters e.g. 6/60
- 5.10 If only part of the line is read, this may be recorded as the line above plus the extra letters, or the line below minus the missed letters e.g.
- a) If the patient reads the '9' line except for two letters, at 6 metres, it should be recorded as 6/9 – 2
- b) If the patient reads the '9' line and a minority of letters on the next line ('6' line), it should be recorded as 6/9 + 2
- 5.11 If the patient is unable to see the top letter of the Snellen chart, reduce the distance between the chart and the patient until the patient can see the top letter on the chart i.e. 5/60, 4/60 > 1/60.
- 5.12 If unable to see the chart at 1 metre check if :-
- They can count fingers (CF's) at 1 metre
 - Ascertain hand movements (HM) at 1 metre
 - Perceive light (PL) using a hand held torch
 - Cannot perceive light (NPL)
- 5.12 Record the patient's visual acuity in the casualty card or notes making sure any unexpected discrepancies in vision are reported appropriately.

NOTE 1

If the patient cannot read English, is a child or has speech, limited mobility or learning difficulties, special charts other than the Snellen's chart can be used to test Visual acuity e.g. Sheridan Gardiner, Kay Picture chart, E chart.

Sheridan Gardiner test:

The examiner shows the patient a letter on a distance card and asks them to point to the corresponding letter on the key card which the patient holds.

Having established that the patient knows what is required to be done, the cards in the distance pack (flip chart) are shown in sequence at the proper distance.

Record in the same way as the Snellen's chart but mark SG test.

The E test:

- Same as the Snellen's test but all the letters are E's.
- The letter E faces different directions.
- The patient holds a master 'E' and is asked to turn it the same way up as the one on the test chart to which the examiner is pointing
- Record in the same way as the Snellen's chart but mark as 'E' test

CHILDREN

Some young children under 3/4 years of age may have to be referred to the Orthoptic department for a more accurate assessment of their visual acuity.

6.0 Training

- 6.1 All ophthalmic trained nurses will receive training in this procedure during their ophthalmic nursing course.
- 6.2 All general trained nurses, health care assistants and technicians who undertake visual acuity testing as a part of their role will receive in-house training before undertaking this test unsupervised to ensure competence.

7.0 Finances

- 7.1 It is unlikely to have financial implications as training will occur in-house.

8.0 References

Marsden J, (1998) *Visual Acuity*. Emergency Nurse, Vol 6 No 6 Oct

Rose K, (2000) *Vision testing in the out patients department*. Ophthalmic Nursing, December Vol 4 No 3.

Smith M, (2005) *Does encouragement boost visual acuity testing results?* Nursing Times, Vol 101 No 35, 30th August

Stollery R, Shaw M, Lee H, (2005) *Ophthalmic Nursing* 2nd Edition. Blackwell Science Ltd, Oxford.