Distance Vision Testing (Snellen) Procedure

1. Guiding Principles

The aim of this document is to guide community health staff to assess and record the visual acuity of older children who are literate in English, utilising distance vision testing known as the Snellen Test.

Undetected or unmanaged vision impairment can impact on a person’s educational progress and capacity to maximize interaction within the social and physical environment.

Targeted assessment of distance vision in children over 8 years of age in the community health setting can be achieved using the Snellen (6 metre) chart.

For further information on vision refer to Community Health Manual:

- Vision guideline includes information on development of vision; normal vision behaviours; vision problems: common vision defects, including strabismus; common eye disorders, including amblyopia; visual acuity tests; and rationale for vision screening.

The Snellen chart may be used to assess the visual acuity of an older child where there are vision concerns or difficulties in the classroom; however the child is also to be referred to a medical practitioner or optometrist for further evaluation or referral. Children over 8 years of age or adults may be assessed with either the Lea symbols chart or the Snellen (6m) chart depending on their level of literacy in English.

2. Key points for conducting Snellen Procedure

- Community health staff are to follow the WACHS Infection Prevention and Control Policy, including appropriate disposal of waste (as per the WACHS Waste Management Policy) and perform hand hygiene in accordance with The Australian Health Service Safety and Quality Accreditation Scheme and National Safety and Quality Health Service Standards in Western Australia at all appropriate stages of the procedure.

- Procedures are only to be performed by appropriately trained and skilled staff.

- Prior to performing the test, it is important to obtain a history about the child’s vision. This may be from the child, parent or school staff which may include factors such as a history of headaches or blurred vision.

- A normal Snellen result does not necessarily exclude the presence of other treatable eye conditions.
• Any child with a vision concern is to be referred to their medical practitioner or optometrist for a more comprehensive assessment or referral.

• The Snellen chart is to be checked prior to use to make sure it is not discoloured or damaged in any way. It is be stored with a plain sheet of paper in between to prevent the letters being blurred.

• The individual must be familiar with the (English) alphabet or be able to “draw” letters in the air.

• The test type consists of black letters on a white background, and contains seven or eight rows of letters, each line diminishing in size and labelled 60, 36, 24, 18, 12, 9 and 6. There are two (2) rows of size 6 letters.

3. Procedure

Equipment
• Snellen Alphabetical Chart (6m)

• Note: Old charts are one sided and have two 6/6 lines. New charts have a different chart on either side with one 6/6 line and one 6/5 line per chart

• Pointer for Snellen chart

• Tape measure and marker

• Two pairs of sunglasses with one lens removed and the other occluded.

3.1 Engagement and consent

• Explain the procedure to the person. Allow sufficient time for discussion of concerns.

• Ensure either written or verbal parental consent from the parent/caregiver or child (if deemed a mature minor) has been obtained prior to proceeding with testing.

Refer to ‘Special circumstances’ section in Universal Contact 4years (School Entry Health Assessment) guideline if screening is indicated and consent not able to be obtained for a school aged child.

• When obtaining verbal consent from parent/caregiver, staff should also gain consent to share results with relevant school staff.

Section 337(1) of the Health Act 1911 authorises nurses specified in the schedule to examine a child without parent consent if required.
3.2 Preparation

- Stand or sit the person comfortably, with an accurately measured distance of 6 metres from the child’s eyes to the chart, to ensure validity of testing.
- Note any abnormalities with the child’s eyes.
- The Snellen chart is to be vertical and at the child’s eye level.
- Advise the person to wear their distance glasses if prescribed.
- Ensure adequate room lighting. Room is to be well lit and the light be dispersed evenly throughout the area of testing.

3.3 Testing strategies

- If necessary, it is acceptable to briefly point to a letter using a pointer.
- Do not leave the pointer close to the letter because it makes fixation easier, especially in the case of amblyopia.
- Do not isolate letters.

3.4 Testing process

- The right eye is always tested first. Cover the left eye with the occluder and ask the patient to read from the top of the chart to the smallest line that they can see.
- Test each eye separately, if one eye is suspected to be weaker than the other, test that eye first.
- The occluder is to consist of two pairs of sunglasses with one (1) lens removed and the other occluded.
- Stand next to the chart and start testing from the top. Test one (1) letter from each line to 6/12 line and then test all letters on the 6/9 line.

3.5 Testing the 6/6 line

- The method for testing the 6/6 line is dependent on the Snellen chart available.
- Choose method 3.5a. if the chart has (2) two 6/6 lines, and 3.5b. if the chart has (1) one 6/6 line per side.
- Record the vision acuity in the patients records
- Repeat the process covering the right eye.

3.5a Old chart with (2) two 6/6 lines

- Test first 6/6 line for right eye and then second 6/6 line for left eye.

3.5b New chart with (1) one 6/6 line per side

- Use one side of the chart to test the right/first eye to the 6/6 line then flip the chart over and test the other eye to the 6/6 line.
- Testing the weaker eye first may lessen the feeling of failure, clinical judgement is used.
- Using a second Snellen chart will reduce the chances of the child memorising.
NOTE:
The bottom line on the new chart is 6/5 and not tested.
If the person cannot read the top letter on the chart at a distance of 6 metres
• Repeat the procedure at a distance of (3) three metres.
• If they are able to read the top letter at (3) three metres record the vision acuity as 3/60.

If the person cannot read the top letter on the chart at a distance of (3) three metres
• Cover the left eye.
• The examiner holds up their hand at a distance of 1 metre and the patient is asked to count the number of fingers held up.
• The vision acuity is recorded as right count fingers R) CF.
• Repeat the process for the left eye.

If the person cannot count fingers
• The hand is moved in front of the right eye at a distance of 0.3 metres – (1) one metre.
• Record visual acuity as hand movement (HM).
• Repeat procedure for the left eye.

If the patient cannot see hand movements
• Occlude the left eye.
• Test for perception of light by shining a torch into the eye from different directions to see if the patient can tell from which direction it comes.
• If the light is seen it is recorded as Perception of light (PL).
• If no light is seen record NPL which is total blindness.
• Repeat procedure for left eye.

On completion of the visual acuity the occluder is to be cleaned with an alcohol wipe.

3.5 Results
• If the child makes one or less errors on the 6/6 line for both eyes then the visual acuity is recorded as 6/6. If the child makes 2 or more errors on the 6/6 line for either eye then the result is recorded as 6/9 and a referral is required.
• Any errors on the 6/9 line or above require a referral.
• The smallest line that the child can read (VA) is expressed as a fraction. The upper number refers to the distance the chart is from the child and the lower number refers to the distance in metres at which a person with no impairment can see the chart, e.g., 6/6.1.
• Explain results to parent/caregiver (if present) or inform parent over the phone or in writing.
• For outcome and referral pathway see below.

3.6 Documentation
Documentation is to include the following descriptors:
• Test used - Snellen chart, 6m
• VA is recorded as a Snellen notation equivalent e.g. 6/9, 6/6
• Record visual acuity right eye (VAR), visual acuity left eye (VAL).

3.7 Outcome
No action is required if the child’s visual acuity is 6/6 in both eyes.

If any other anomalies are observed during the assessment, such as turning of the head during testing, reluctance to cover one eye, or ptosis of eye, Community health staff are to use their clinical judgement and either recheck or refer the child.

3.8 Referral

Referral pathway
Normal visual acuity findings do not exclude the presence of other treatable eye conditions.

Where there are any vision concerns, and/or any situation where Community Health staff are concerned that the results may not be within normal limits, a referral is to be made. This includes any child with a VA of 6/9 or worse in either eye.

Always obtain parental consent for referral.

The Community Health Information System (CHIS) is to be used to refer the child to their medical practitioner and/or optometrist.

WACHS nurses are to follow local processes as required; this may involve referral to an optometrist to expedite assessment, treatment and prioritising ophthalmology services.

Referral feedback
It is recommended that when there is no feedback received from the medical practitioner and/or ophthalmologist/optometrist that the referral is to be followed-up with the parent/caregiver and outcomes carefully documented.
4. Roles and Responsibilities

The clinician is to:
- Perform the Snellen Test in accordance with this procedure.
- Document actions undertaken in the client medical record.
- Refer according to local guidelines when indicated.

5. Compliance

Failure to comply with this procedure may constitute a breach of the WA Health Code of Conduct (Code). The Code is part of the Employment Policy Framework issued pursuant to section 26 of the Health Services Act 2016 (HSA) and is binding on all WACHS staff which for this purpose includes trainees, students, volunteers, researchers, contractors for service (including all visiting health professionals and agency staff) and persons delivering training or education within WACHS.

WACHS staff are reminded that compliance with all policies is mandatory.

6. Records Management

Electronic client records as applicable to region e.g. Community Health Information System (CHIS), MMEX or Communicare.

7. Evaluation

Monitoring of compliance with this document is to be carried out by the Program Manager, Population Health every three (3) years using the following means or tools:
- Current national and state eye health guidelines.
- Expert advice from service providers.
- Consultation with WACHS Population Health, Senior Nurses Best Practice Group.
- Consultation with WACHS Population Health, Staff Development and Clinical Nurse Specialists.

8. Standards

National Safety and Quality Health Service Standards (Second edition 2017) – 1.7, 1.8
EQuIP National Standards (11-15) - 11.3, 11.4, 11.5, 11.6, 12.1
9. Legislation

Section 337(1) of the Health Act 1911

10. References


11. Related Policy Documents

Corneal light reflex test (Hirschberg Test)
Cover test
Distance vision testing (Lea Symbols Chart)
Universal contact 4years (School Entry Health Assessment)
Vision

12. Policy Framework

Clinical Governance, Safety and Quality