HOW TO ...

Test distance vision using a Snellen chart

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Indications
- To provide a baseline recording of visual acuity (VA)
- To aid examination and diagnosis of eye disease or refractive error
- For medico-legal reasons

Equipment
- Multi-letter Snellen chart
- E or C Snellen chart or a chart with illustrations for patients who cannot read or speak
- Plain occluder (not essential)
- Pinhole occluder
- Torch or flashlight
- Patient’s documentation

Procedure
- Ensure good natural light or illumination on the chart
- Explain the procedure to the patient
- Wash and dry the occluder and pinhole. If no plain occluder is available, ask the patient to wash his/her hands as they will use a hand to cover one eye at a time
- Test each eye separately – the ‘bad’ eye first
- Position the patient, sitting or standing, at a distance of 6 metres from the chart
- Ask the patient to wear any current distance spectacles, to cover one eye with his/her hand (or with a plain occluder), and to start reading from the top of the chart
- The smallest line he/she can read (the VA) will be expressed as a fraction, e.g. 6/18 or 6/24 (usually written on the chart). The upper number refers to the distance the chart is from the patient (6 metres) and the lower number is the distance in metres at which a person with no impairment should be able to see the chart
- In the patient’s documentation, record the VA for each eye, stating whether it is with or without correction (spectacles), for example:
  - Right VA = 6/18 with correction
  - Left VA = 6/24 with correction
- If the patient cannot read the largest (top) letter at 6 metres, move him/her closer, one metre at a time, until the top letter can be seen – the VA will then be recorded as 5/60 or 4/60, etc.
- If the top letter cannot be read at 1 metre (1/60), hold up your fingers at varying distances of less than 1 metre and check whether the patient can count them. This is recorded as counting fingers (CF). Record as: VA = CF
- If the patient cannot count fingers, wave your hand and check if he/she can see this. This is recorded as hand movements (HM). Record as: VA = HM
- If the patient cannot see hand movements, shine a flashlight toward his/her eye from four directions of a quadrant. Record this in the documentation, in the relevant quadrant, as perception of light (PL or √), or no perception of light (NPL or X). Record as:
  - Right VA = X \[\text{NPL} \quad \text{NPL}\]
  - Left VA = PL \[\text{NPL} \quad \text{PL}\]
  - or
  - Right VA = \[\frac{X}{X} \quad \frac{X}{X}\]
  - Left VA = \[\sqrt{X} \quad \sqrt{X}\]
- If 6/6 (normal vision) is not achieved, test one eye at a time with a pinhole occluder (plus any current spectacles) and repeat the above procedure at 6 metres only. The use of the pinhole enables assessment of central vision
- If the vision improves, it indicates the visual impairment is due to a refractive error, which is correctable with spectacles or a new prescription
- Repeat the whole procedure for the second eye
- Summarise the VA of both eyes in the documentation, for example:
  - Right VA = 6/24 with specs, 6/6 with pinhole
  - Left VA = NPL

If using the E or C chart:
- Point to each letter on each line and ask the patient to point in the direction toward which the open end of the letter is facing
- Follow the same procedure and recording methods as above.