HOW TO ...

# Test distance vision using a Snellen chart

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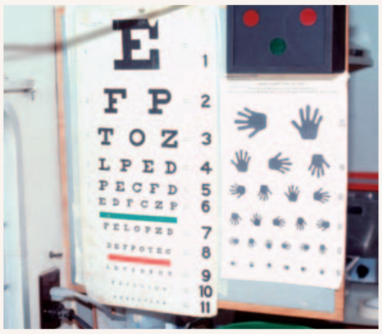
## Indications

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




**A multi-letter Snellen chart (left) and a chart with illustrations**

## 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 =

| | |
|---|---|
| NPL | NPL |
| NPL | NPL |

Left VA =

| | |
|---|---|
| PL | NPL |
| PL | NPL |

or

Right VA =

| | |
|---|---|
| X | X |
| X | X |

Left VA =

| | |
|---|---|
| √ | X |
| √ | 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.



EXCHANGE

# Community perceptions of refractive errors in Pakistan

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Pakistan's national survey of blindness and visual impairment in 2002–2004 reported the prevalence of blindness to be 0.9 per cent. Of this total, 3 per cent can be attributed to uncorrected refractive errors. As Pakistan has a population of 150 million, this is equivalent to just over 40,000 people. Given these figures, there is an urgent need to increase refraction services in a comprehensive manner.

Whereas many studies have been conducted on the scientific and programmatic aspects of refractive error services, there is insufficient data available about the consumer's perspective and possible reasons for the low uptake of services.

We designed a study to investigate communities' perceptions of refractive errors, to assess sociocultural patterns, practices, and attitudes towards the use of spectacles, and to investigate issues related to the affordability and availability of spectacles in rural and urban communities.

Focus group discussions and participatory rapid appraisal techniques were used to collect information from the community. A structured questionnaire was developed and field-tested to ensure validity. A team of two female and three male interviewers carried out the field research and 479 questionnaires were completed. Participants were members of different communities, chosen from 11 clusters representing urban, semi-urban, and rural settings. Each cluster contained from 15–25 participants. We did not encounter any substantial refusals to participate. The quantitative data was cleaned and then analysed using the SPSS statistical package, version 11.

Out of the total sample interviewed, 41 per cent were female and 59 per cent were male. The age breakdown of the participants was as follows: 1–15 years, 41 per cent; 16–30 years, 27 per cent; 31–40 years, 18 per cent; and 41 and above, 14 per cent. Many of the respondents (44 per cent) were married, 32 per cent attended school, and all ethnic groups were represented.

Many people did not understand what refractive error services were offered and did not consider themselves as having refractive errors. Affordability was the major reason given by people for not purchasing the spectacles they had been prescribed.

Cosmetic factors were important for all