Levels of Low Vision Service Provided

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Level 1 Screening/recognition of a LV patient

It is the responsibility of all optometrists to be aware of when patients should be referred/recommended LVR and to make appropriate referral/recommendation for, or provision of, LVR by a low vision optometrist prior to referral for LVR services with the Vision Loss Rehabilitation Canada (LVRC) . This is the minimum standard of care. All optometrists should be willing and able to trial a higher reading addition e.g up to 4D.

Low vision assessment and rehabilitation should always be recommended for the following:

- A patient who has **low vision** which is defined as a **visual impairment** (measurable loss of vision) resulting in a **visual disability** (difficulty undertaking a task because of poor vision).
- To clarify, this includes all patients who
    - Have a disease (ocular or systemic) which is not treatable and know to cause vision loss (most commonly VA, CS or field loss)

  AND
    - Have difficulty with normal everyday visual tasks despite optimum optical correction

- In terms of visual impairment, the levels at which vision loss is likely to cause a visual disability are (but not limited to) the following situations
    - VA 6/12 (20/40) or poorer

      OR

    - Central or paracentral scotoma or metamorphopsia

      OR

    - Peripheral field loss (hemianopia/quadrantanopia, less than 70 degrees[1] [1]circular diameter total field)

      OR

[1] 60 degrees in Quebec

- Log CS < 1.4

OR

- A combination of these measures

Minimum additional assessment equipment: A contrast sensitivity chart such as Pelli-Robson charts, Mars Letter Contrast Sensitivity test, Sloan Letter Low Contrast Flip Chart or the Rabin Contrast Sensitivity Chart.

Level 2. Basic LV Service

This is the level of LVR which can be provided in an optometrist's office with a modest amount of equipment and optical devices, and some training of optometric assistants to provide assessment and training.

Minimum additional equipment and devices should include:

- Suitable distance acuity charts to quantify any visual acuity impairment better than HM (Bailey-Lovie charts, EDTRS charts, Feinbloom Low Vision Book, Lea Numbers Low Vision Book).
- A logMAR continuous text reading acuity chart such as Colenbrander, Lighthouse or MNRead chart
- Hand magnifiers (e.g. 8D, 10D, 12D) (a range of illuminated and non-illuminated, pocket sized and larger)
- Trial lens set for demonstration of high adds/microscopes and possibly a separate set of prism half-eyes and microscopes
- Tint samples (e.g. grey, brown, yellow, orange, plum)
- Low powered monocular and binocular telescopes (e.g. 2-4x hand held or spectacle-mounted)
- Ideally, a good goose neck lamp
- Possibly a pocket video magnifier (note that patients who benefit significantly from this should be assessed for a desk-top CCTV if possible and other tertiary LVR)

Patients who are likely to benefit would be those with

- VA from 6/12 to 6/21
- CS between 1.40 and 1.00
- No hemianopia or quadrantanopia and visual fields larger than 70 degrees[1] circular field
- No significant paracentral field loss which limits reading speed/visual function

A minimum database of necessary testing would be, but is not limited to:

a. Comprehensive history including identification of patient goals
b. Distance and near acuity testing with appropriate charts
c. Trial frame refraction
d. Assessment of contrast sensitivity when indicated
e. Assessment of binocularity when indicated
f. Assessment of visual fields when indicated
g. Assessment of colour vision when indicated
h. Assessment of magnification/tint/lighting requirements
i. Discussion of environmental modifications (use of contrast)
j. Awareness of accessibility on common electronic devices (iPad, cell phones, computers, tablets)
k. Development of rehabilitation plan

Level 3 (Comprehensive LVR) is anything beyond Level 2.

This includes all those providers who participate in multidisciplinary centre care although all LVR providers are not necessarily in same building. Optometrist LVR provider should have advanced knowledge of LVR to address complex patient presentations and provide full scope LVR.

OD LVR provider would have access to a range of different assistive devices beyond magnifiers and high adds, including custom microscopes, telescopes (hand-held and custom-spectacle mounted), prisms and other field enhancement devices, electronic magnification.

OD LVR provider should have working relationships with:

i. Low vision therapist or occupational therapist
ii. Independent living skills provider or occupational therapist
iii. Orientation mobility instructor
iv. High tech/CCTV/computer assessors
v. Optician
vi. Counsellor/Psychologist

OD LVR provider should recognise the need for, and be able to initiate or direct patients to, social resources (e.g. Tax benefits, transportation, legal blindness certification)

OD LVR provider initiates referrals to those necessary and communicates rehabilitation plan including but not limited to; synopsis of exam findings, final Rx, assistive devices that are

recommended and already dispensed, other device recommendations and anticipated performance with devices, training recommendations, environmental modifications and counselling.

Patients who are likely to need this level of LVR are

- VA poorer than 6/21
- CS <1.00
- Hemianopia or quadrantanopia and visual fields smaller than 70 degrees[1] circular field
- Significant central/paracentral scotoma

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