Care of the Patient with Vision Impairment

Our objective of this document is to remind and educate optometrists about low vision services.

The vast majority of patients with low vision seen in ophthalmology or optometry practices have mild or moderate visual loss rather than legal blindness. With the improvement in treatment of exudative age-related macular degeneration (AMD), the median visual acuity is 20/70, a level at which the standard reading add is not sufficient for effective reading. Advanced nonexudative AMD often has preserved foveal function with only moderate visual acuity loss despite scotomas limiting reading, face recognition, etc. Diabetic macular edema and glaucoma also generally causes moderate visual loss with loss of contrast sensitivity.

Many eye care providers consider low vision rehabilitation (LVR) only when patients have severe or profound visual loss. This approach overlooks patients with mild-to-moderate visual loss that have some difficulty with daily living activities. For example, in low vision practice we often see patients who have had preservation of visual acuity at moderate levels with intravitreal injections, but who have not been able to read for several years because they never had their add raised, additional lighting provided, etc.

What is Low Vision?

Low vision (LV) refers to vision impairment that cannot be corrected with conventional glasses, contact lenses, medication or surgery. The reduced vision often affects function and the ability to perform everyday activities with ease. Vision impairment can be due to loss in visual acuity, visual field, and/or contrast sensitivity. The impairment may be congenital, or acquired from an injury, complication of a systemic condition, or age-related.

Who can Benefit from Low Vision Rehabilitation?

A majority of patients presenting for LVR show a clinically meaningful benefit from intervention. According to the American Optometric Association Clinical Practice Guideline: Care of the Patient with Visual Impairment, “The significant negative impact of visual impairment on the well-being and quality of life of individuals of all ages can, in many cases, be lessened by appropriate vision rehabilitation, including optometric low vision intervention.” The American Academy of Ophthalmology
SmartSight Program recommends consideration of LVR referral for any patient with vision worse than 20/40 in his/her better-seeing eye.

Over one-third of all patients presenting for outpatient LVR have mild vision impairment (better than 20/60) and this subgroup of patients appears to show the most benefit. This emphasizes the importance of looking beyond visual acuity in determining those in need of service. Nearly any patient who feels his/her level of vision negatively impacts activities of daily living and is interested in learning strategies to cope with vision loss can benefit from LVR.

What is the Goal of Low Vision Rehabilitation?

LVR maximizes visual ability, which is the ability to perform everyday activities that depend on vision, through the use of visual assistive equipment, sensory substitution strategies, education, and counseling. LVR does not restore visual acuity or restore ocular function, but instead makes the tasks easier with compensatory strategies. Vision rehabilitation is not a substitute for medical care. It is, however, an essential part of improving visual ability in patients with uncorrectable vision loss, even while under active medical treatment. LVR is goal-driven and tailored to the unique needs of the individual patient and takes into consideration many of the physical and emotional concerns that can accompany changes in vision.

What are the Tools and Strategies for Low Vision Rehabilitation?

LVR strategies can range from increasing the strength of reading glasses to using sensory substitution, relying on auditory or tactile strategies when vision has become unreliable. Additional approaches may include microscopic or telescopic systems, magnifiers, tinted lenses, computer accessibility, video magnification/closed circuit television systems, and non-optical devices. Home visits by a LV occupational therapist (OT) may also be indicated to address tasks such as medication management, home safety and self-care. LVR is not only visual assistive equipment and devices, but rather a rehabilitation approach to enhance independence and quality of life. When there are limited or no medical treatments available, demonstrating to the patient they still have options to perform desired ADLs is a powerful tool and important aspect of patient acceptance of his/her condition.
Who Provides Low Vision Rehabilitation Services?

Doctors who have received specialty training in LVR provide clinical examinations and assist in the development of rehabilitation plans and recommendations for patients with low vision. Occupational and vision rehabilitation therapists provide additional training on visual assistive equipment, instruction and strategies to low vision patients on how to safely and effectively use their vision to perform ADL tasks. Referrals to additional rehabilitation providers, such as orientation and mobility specialists may also be appropriate.

Is Low Vision Rehabilitation covered by insurance?

Yes, similar to other ophthalmic evaluations, Medicare and other health insurances cover LVR examinations, including doctor visits and diagnostic testing. Similarly, Medicare and most health insurances cover LV Occupational Therapy when certain visual criteria are met. However, refractions and visual assistive equipment are not covered by insurance.

What if my patient cannot afford the recommended visual assistive equipment?

Depending on the patient’s level of vision impairment and need for financial assistance, he/she may be referred to the Maryland state rehabilitation agency called the Division of Rehabilitation Services (DORS), Columbia Lighthouse for the Blind, local Lions Club or Social Workers, for assistance obtaining visual assistive equipment.

What are the cost considerations of visual assistive equipment (VAE)?

Some approaches to rehabilitation do not represent any additional out of pocket expense to the patient, e.g. teaching the patient to use built-in accessibility features on their existing computer and cell phone to enhance contrast, magnification and readability. Most non-electronic assistive equipment is similar in cost to a obtaining a new pair of glasses and should not exceed a few hundred dollars. For some of the newer electronic magnification technology, the cost is typically less than $4000.

One of the most important aspects in prescribing VAE, prior to the patient purchasing the equipment, is to consider the effectiveness of the device in the patient’s home environment. Additional training in the clinic may be indicated, or a
home visit with the OT to maximize understanding and use. Training, counseling and adaptation are often essential components to LVR effectiveness.

References:


2. “American Optometric Association Low Vision Rehabilitation”

   http://www.aao.org/smart-sight-low-vision

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