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Issue:	What evidence exists to inform the provision of low vision assistive devices in VA?
Title:	Optical Devices for Adults with Low Vision: A systematic Review of Published Studies of Effectiveness
Agency:	VA Technology Assessment Program, Office of Patient Care Services, Room D4-142, 150 S. Huntington Ave (11-T), Boston, MA 02130 Tel: 857-364-4469, Fax: 857-364-6587
Reference:	VA Technology Assessment Program Report May, 2003. www.va.gov/vatap
Aim:	To evaluate the effectiveness of optical low vision aids for the visually impaired veteran.
Conclusions and results:	Eleven peer-reviewed articles met inclusion criteria. These studies compared the performance of optical low vision devices primarily used for reading. The results indicate that reading performance with either stand-mounted or handheld closed circuit TV (CCTV) was superior to prescribed optical devices such as stand magnifiers, coil stand magnifiers, and microscopic lenses for patients with age-related macular degeneration. Compared to standard rehabilitation alone, Fresnel prisms added to standard rehabilitation improved performance on visual perception tests but not on activities-of-daily-living function in post-stroke patients with homonymous hemianopia or visual neglect. CCTV was preferred to spectacle reading glasses, and illuminated stand magnifiers, and prototype magnifiers were preferred to conventional devices. Sustained use of these devices in the subject's life setting, resources in terms of costs and training associated with each alternative, and the link between device use and health related quality of life were unknown. The peer-reviewed literature does not provide evidence to inform clinical choices about the provision of optical low vision devices to visually impaired patients.
Recommendations:	Clinicians must use their best judgment in concert with patients' needs to determine appropriate provision of low vision devices to patients.
Methods:	Comprehensive literature searches were conducted using Medline, HealthSTAR, Embase, Current Contents, and the Cochrane Library from 1970 thru 2002. Additional citations were obtained from the INAHTA and evidence-based medicine communities, including VA. Search strategies used terms describing low vision rehabilitation, eye diseases rehabilitation, spatial and visual perception disorders, and adult dyslexia treatment and rehabilitation. Low vision devices, tinted or filtered lenses, sensory aids, low vision enhancement systems, low vision self help devices ocular accommodation devices and prisms were also researched. Devices used for reading and driving were considered. Primary studies published in English with outcome measures using commercially available devices were included.
Further research/reviews required:	Future research is needed to determine the appropriate candidacy for low vision devices, suitable prescription of these devices, and outcome measures that define the quality of life in subjects with age-related visual impairment along the continuum of visual impairment and disability.
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