Establishing a low vision practice in Alberta, Canada

Sherri Norris
Pacific University

Justin Norris
Pacific University

Recommended Citation
Norris, Sherri and Norris, Justin, "Establishing a low vision practice in Alberta, Canada" (1996). College of Optometry. 1009.
https://commons.pacificu.edu/opt/1009

This Thesis is brought to you for free and open access by the Theses, Dissertations and Capstone Projects at CommonKnowledge. It has been accepted for inclusion in College of Optometry by an authorized administrator of CommonKnowledge. For more information, please contact CommonKnowledge@pacificu.edu.
Establishing a low vision practice in Alberta, Canada

Abstract
As the population ages there are more and more individuals who can benefit from low vision services. Many optometrists, including the ones in Alberta Canada, are discouraged from low vision due to its complexity and time consuming nature. To outline the requirements for a successful low vision practice in Alberta it was necessary, along with a comprehensive literature search, to obtain information from the Alberta Association of Optometrists and the Canadian National Institute for the Blind (CNIB). To be a registered provider of low vision services and to be billed appropriately the practitioner must include specific procedures in the low vision exam and possess the required low vision equipment. It is also necessary to adapt the office for low vision patients to allow them more independence and comfort. To supplement the care provided by the optometrist, a low vision patient can also receive assistance from a few social service organizations including the Canadian National Institute for the Blind (CNIB) which offer extensive low vision care. The CNIB are also responsible to register all legally blind individuals in Alberta. Select low vision patients who do not meet the medical standards for driving in Alberta may be eligible for a conditional drivers licensee upon approval from Alberta's medical review board.

Degree Type
Thesis

Degree Name
Master of Science in Vision Science

Committee Chair
William Ludlam

Subject Categories
Optometry

This thesis is available at CommonKnowledge: https://commons.pacificu.edu/opt/1009
ESTABLISHING A LOW VISION PRACTICE IN ALBERTA, CANADA

By:

SHERRI NORRIS

&

JUSTIN NORRIS

A thesis submitted to the faculty of the
College of Optometry
Pacific University
Forest Grove, Oregon
for the degree of
Doctor of Optometry
May, 1996

Adviser:

WILLIAM LUDLAM, O.D.
ESTABLISHING A LOW VISION PRACTICE IN ALBERTA, CANADA

APPLICANTS:

Sherri Norris

Justin Norris

March 8, 1996

Date

March 8, 1996

Date

ADVISOR:

William Ludlam, O.D.

July 10, 1996

Date
ACKNOWLEDGMENTS

We would like to thank Dr. Ludlam for his support and guidance in completing this project. We would also like to thank the Canadian National Institute for the Blind (CNIB) for the time and effort they gave to help us understand the critical role they provide in low vision care in Canada.
BIOGRAPHICAL SKETCH

Sherri M. Norris

I was born and raised in Red Deer, Alberta, Canada. I attended the first two years of my undergraduate program, a Bachelor of Science degree with a major in biological sciences, at the Red Deer College. I finished my Bachelor of Science degree at the University of Alberta in Edmonton. I began school at Pacific University College of Optometry in the fall of 1992 and will graduate with my Doctor of Optometry degree in May of 1996.

Justin J. Norris

I was born in Edmonton, Alberta, Canada. I attended the first two years of my undergraduate program, a Bachelor of Science degree with a major in biological sciences, at the Red Deer College. I finished my Bachelor of Science degree at the University of Alberta in Edmonton. I married Sherri (my high school sweetheart) and two weeks later I began school at Pacific University College of Optometry in the fall of 1992 and will graduate with my Doctor of Optometry degree in May of 1996.
ABSTRACT:
As the population ages there are more and more individuals who can benefit from low vision services. Many optometrists, including the ones in Alberta Canada, are discouraged from low vision due to its complexity and time consuming nature. To outline the requirements for a successful low vision practice in Alberta it was necessary, along with a comprehensive literature search, to obtain information from the Alberta Association of Optometrists and the Canadian National Institute for the Blind (CNIB). To be a registered provider of low vision services and to be billed appropriately the practitioner must include specific procedures in the low vision exam and possess the required low vision equipment. It is also necessary to adapt the office for low vision patients to allow them more independence and comfort. To supplement the care provided by the optometrist, a low vision patient can also receive assistance from a few social service organizations including the Canadian National Institute for the Blind (CNIB) which offer extensive low vision care. The CNIB are also responsible to register all legally blind individuals in Alberta. Select low vision patients who do not meet the medical standards for driving in Alberta may be eligible for a conditional drivers licensee upon approval from Alberta’s medical review board.

INTRODUCTION:
Optometrists who choose to offer low vision services have the unique opportunity to improve the lives of many persons. Low vision is a complex, time-consuming service for optometrists to offer and thus this specialty within the optometric field is greatly neglected. In Alberta, only 27 of 245 licensed and registered optometrists provide any type of low vision service.1 This article will provide a thorough reference of low vision services available,
rules, and regulations for Alberta optometrists. It will provide an understanding of the complexity of low vision service and will give enough information for optometrists to feel comfortable integrating low vision services into their practice. It is not, however, intended to provide instruction on how to actually perform a low vision assessment or dispense low vision aids.

METHODS:
Research for this paper was initiated through a comprehensive literature search to find articles that outlined requirements for a successful low vision practice. The initial direct information specifically for Alberta was obtained from the Alberta Association of Optometrists (AAO). This was followed up by contacting the Canadian National Institute for the Blind (CNIB) which has an extensive information base for low vision services both within their organization and within the various Alberta communities. The services of the CNIB were explored and the private organizations and businesses identified as being beneficial through the CNIB were explored. Various local and provincial government offices were also contacted to determine their specific roles in providing low vision services.

DISCUSSION:
The Low Vision Committee of the Alberta Association of Optometrists has set standards required for a low vision assessment. These standards are as follows:

A. Minimum procedures include:

- an extensive case history including the ocular disorder,
  previous history, present perceived handicap, patients goals,
  visual demands, mindset, outside support, patients present
involvement with the CNIB and present low vision aids
- visual acuities aided and/or unaided with appropriate
  low vision acuity charts
- ophthalmoscopy
- objective free space refraction
- subjective free space refraction
- calculation of appropriate equivalent viewing power and
  attained visual acuity
- gross binocular assessment
- visual fields
- contrast sensitivity
- analyses and diagnoses of findings
- recommendations to the patient based on available
  diagnostic low vision aids

These procedures must be recorded on a permanent record which
identifies the examining optometrist and the record must be retained for at
least five years.

B. If the examining optometrist feels that the patients needs are beyond
the scope of his/her competence, then it is the responsibility of that
practitioner to make the appropriate referral.

C. Minimum equipment required to be registered with Alberta Health
Care Insurance Plan (AHCIP) and therefore allowed to bill for a low vision
assessment is as follows:
  - a portable distance low vision chart
  - a portable near low vision chart
-three near diagnostic magnification aids
-three distance diagnostic magnification aids

The procedure code to bill AIICIP for a low vision assessment is B660.

This recommended equipment list from the AAO is vague, and we feel, too minimal to allow a practitioner to adequately provide low vision services in their practice. It is often suggested by low vision practitioners that a new practitioner get experience before building up a large stock of low vision devices and that continuing education is essential in making knowledgeable low vision purchases. When purchasing low vision aids it is important to remember that one of our most important responsibilities as a low vision practitioner is to demonstrate to the patients their ability to achieve better vision with the low vision aids that you have for demonstration. This will give the patients hope and motivation and at the same time keep them realistic about the improvements in vision possible with the aids. With these goals and recommendations in mind, we recommend purchasing one of the pre-assembled starter kits available from one of the many companies that offer such kits. The starter kit that we feel is most appropriate is one designed by Dr. Randall Jose and available through Mattingly International. Please see Appendix A. The cost for this starter kit is $995.00.

When a practitioner is considering low vision services as part of his/her practice many office adaptations are necessary if the low vision patients are to be able to function comfortably and independently. Sign in sheets using raised or boldly lined paper and felt tipped markers will allow many of the patients to be able to sign in and fill out the necessary paper work without assistance. Lighting modifications can also be very helpful to the partially
sighted patient. Ambient lighting should be used to avoid any dark spots; special lighting for reading should be available in the reception area; color schemes should be designed to provide maximum contrast to distinguish between floors and furniture and walls and doors and any steps. No area rugs should be used as these can easily cause a person to trip and even fall. Firm chairs with arm rests are also recommended to allow the patient to feel secure and sure of where to sit. Large print books and magazines in the reception area are necessary. Instruction areas should have non-glare tables and surfaces. Your office must also be wheelchair accessible.

It is true that part of the reason for the lack of optometric involvement in low vision care is that the Canadian National Institute for the Blind (CNIB) is very comprehensive in the services that it offers the visually impaired persons in all of Canada.\(^8\) It was also difficult for optometrists to become involved because until very recently (the summer of 1995) the CNIB only accepted referrals from ophthalmologists. However, now the CNIB does accept referrals from optometrists.

The CNIB is a national volunteer agency dedicated to improving and enriching the quality of vision of those individuals with visual impairment. The CNIB was established in 1918 and now, in Alberta, there are comprehensive service centers in Edmonton and Calgary, and smaller offices in Lethbridge and Medicine Hat.

The CNIB offers many core services which include: counseling and referral, rehabilitation teaching, orientation and mobility training, sight enhancement, technical aids, career development and employment, and
library services which also includes a toy lending library. Trained support workers from the CNIB provide these services both at the CNIB centers and in the clients home and community. A worker will spend time with a client teaching the steps necessary to allow that client to live and function independently. Such steps include adapting the home and planning traveling strategies. Some of the most common and easiest adaptations to the home concentrate on lighting and using color-brightness contrast to make the world more visible. We spent a day with several of the different volunteers in the Calgary office and were very impressed with the genuine compassion and enthusiasm that these people had for the roles they were playing helping visually impaired people integrate into the mainstream.

In addition to the services provided directly for persons affected by visual impairment, the CNIB also offers counseling and programs for family members to help them cope and understand more about visual impairment. The needs and rights of the visually impaired are also defended in court by the CNIB. Most of these services are provided at little or no cost to the registered and enrolled clients of the CNIB. However the actual low vision aids, which the CNIB must purchase from suppliers, are sold to the clients at minimal cost.

Registration of legally blind individuals is controlled only through the CNIB. Once registered, the major benefit for patients is the eligibility for certain federal and provincial tax credits. There are many municipal benefits available in the different communities and these vary from community to community depending on the services offered in that community. Some standard benefits include free public transportation and free public library memberships. Registration requires a referral from an ophthalmologist or
optometrist and the patient is then given a registration number. The CNIB has its own referral form. Necessary information on this form includes best visual acuity, nature of the visual defect, prognosis and other vital statistical information. A copy of the actual form was not available from the CNIB. Legally blind, registered clients are not required to actually visit the CNIB to qualify for the tax and other government benefits. The paperwork can be completed without the person actually visiting the center.

Patients who are not legally blind and therefore not eligible for registration can instead be 'enrolled' through the CNIB. This does not require a referral from an ophthalmologist or an optometrist and can be on a self initiated basis. This entitles the enrolled patient to receive the services offered by the CNIB at little or no cost. Early enrollment is encouraged to allow a more successful adjustment and modification of lifestyle as vision loss progresses.

Funding available to low vision patients in Alberta is fairly limited. The only source of government aid for low vision devices, counseling, rehabilitation, etc. is directed only through the CNIB. At the beginning of each fiscal year there is a designated and limited amount of money given to the CNIB through a government program called Alberta Aids To Daily Living. The specific program within the Alberta Aids to Daily Living is called the STEP program. To qualify for financial aid from STEP, CNIB clients must have best corrected, distance VAs of 20/70 or less. This program will then pay 3/4 of the cost for up to three low vision aids per year for each client. However, this money is limited and so the CNIB must try to allocate the limited resources fairly and evenly so those in need at the end of the year will still be able to be helped.
Other Alberta government social services such as Assured Income for the Severely Handicapped (AISH) and Homecare services are most often not available to individuals with visual impairments. It is assumed that individuals with low vision can still lead functional, productive lives and that the elderly patients with age-related low vision already have other sources of income such as the Canadian Pension Plan and therefore do not qualify for any extra funding. This fact makes it even more important that optometrists do their part to contribute to the enhancement of quality of life for all of their low vision patients.

One volunteer association service that is available in most communities is Meals on Wheels. This service will deliver one nutritious, hot meal per day to their clients home. This service can be accessed by contacting the local public health unit.

Other sources for financial aid for low vision patients often comes from service groups such as the Lions, Kiwanis, and Kinsmen. Scholarships are often available for low vision students to attend post secondary education. These may be identified by calling the school of interest or by calling the Alberta Student Finance Board which publishes a booklet of many government and non-government scholarships offered each school year. Many post secondary institutions also offer other types of support for their low vision students and even have separate service centers designed to be easily accessible. For example, at the University of Alberta there is a separate service center and one of the services offered is that any student with a demonstrated need can have their textbooks or any reading assignments read and taped onto cassettes by other student volunteers. Student volunteers will
also take notes in class for visually impaired students that can later be taped. Many schools have CCTVs accessible for use.

Support groups are very important for many low vision patients. These groups help re-establish self-esteem, offer coping mechanisms, and begin friendships. The CNIB offers several different support group meetings based on age, disease causing blindness, different times of the day. There are also support groups for family members.

ASVI (Alberta Society for the Visually Impaired) is a non-profit support group for visually impaired children and their parents in Alberta. One of their main goals is to promote the integration of visually impaired students into the regular classroom. This group is not always active in all communities but information regarding contact persons, meeting times, and activities of the groups is continually updated and available through the CNIB.

The local diabetic associations also offer support groups and although groups specific for vision loss are not available in all communities, most of the larger communities do have groups specific to vision loss.

Senior citizen groups are also often a good support network although not specifically for visually impaired individuals, many elderly people are affected by impaired vision.

Reading material is available from many sources. Most public libraries have large print editions of many books. The CNIB library has several magazines on cassette including the Reader's Digest, Chatelaine and Macleans. The CNIB
library has over 50 magazines available in Braille.

Voice Print is an audio news and information specialty cable service available through all cable systems. This service provides the printed information from more than 100 Canadian newspapers and periodicals on a cable TV channel 24 hours a day. This allows visually impaired Canadians to keep abreast of all the current news via their cable TV. This service is provided free of charge to all cable systems by the National Broadcast Reading Service. More information can be obtained from a local cable service or by writing VoicePrint.9

Medical standards for driving in Alberta are as follows:

Class 1, 2, 3, & 4
- binocular vision
- at least 20/30 in better eye
- at least 20/50 in weaker eye
- 120 degrees horizontal visual field in each eye examined separately

Class 5 and 6
- binocular or monocular vision
- 20/40 in better eye
- 120 degrees horizontal visual field with both eyes opened and examined together

In addition to these visual acuity and visual field requirements for driving there are other regulations for driving in Alberta. Color vision proficiency is regulated only to the degree that a driver is able to discriminate between the different colored traffic lights. Diplopia is a contraindication to driving any class of motor vehicle. Visual field scotomas must be considered and patients with significant scotomas are licensed on an individual basis, based on an assessment by an ophthalmologist or optometrist. Individuals with complete
homonymous or bitemporal hemianopsia cannot drive. Individuals with a complete homonymous or bitemporal inferior quadrantanopsia can not drive. Individuals with a partial quadrantanopsia may be eligible to hold any class of license provided they meet the above specified visual field requirements.

A Visual Referral Report for the Alberta Registries Motor Vehicles is the standard form to be completed by a “competent authority on vision”, which includes an optometrist, in the case that an individual fails the vision screening portion of obtaining a driver’s license. Please see Appendix B.

Persons with visual impairment that do not meet the above requirements are assessed on an individual basis by the Medical Review Board for the Alberta Motor Vehicles and may be eligible for a conditional license. This board consists of four to five people and includes a general MD., a cardiologist, a neurologist and an ophthalmologist or optometrist. The condition codes are ‘D’ which is a restricted license and the restrictions will be listed on the license and ‘H’ which is a license for daylight driving only. Requests for the special licenses usually take about fourteen days to process. With respect to the usage of bioptics or telescopic lenses to aid the visually impaired in driving, patients using these are also assessed on an individual basis and the bioptic or telescopic lens must not impair the visual field in any way.

As optometrists, we can belong to an organization dedicated to learning how to better serve the low vision population and help find methods/solutions for better education and rehabilitation of low vision patients. This organization is called AER which stand for The Association for Education and Rehabilitation of the Blind and Visually Impaired. This organization was formed in 1984 as a
that the information in this article has inspired other optometrists to begin providing low vision care so that they may better serve their patients.
FLETCHER LOW VISION EQUIPMENT
DEMONSTRATION SET

*Designed by Donald C. Fletcher, M.D.*
University of Missouri (Kansas City) Department of Ophthalmology

**Magnifiers**

B & L#81-33-76 +5D Handheld
Eschenbach#1510-030 3.5X Pocket Illuminated
Eschenbach#1510-051 5X Pocket Illuminated
Eschenbach#1510-1004 10X Pocket Illuminated
Eschenbach#1550-03 10X Illuminated Magnifier Head
Eschenbach#1525-03 6X Illuminated Magnifier Head
Eschenbach#1584-03 2.75X Illuminated Magnifier Head
Eschenbach#1540 Regular Battery Handle
Eschenbach#1590-04 Halogen Plug-In Handle
Eschenbach#1591-04 Halogen Battery Handle

**Spectacles or Head-Borne Loupes**

Mattingly +6 Prismatic Half-Eye
COIL “Thin” +8 Prismatic Half-Eye
COIL “Thin” +10 Prismatic Half-Eye
Edroy#105 +5 Magni-Focuser
Edroy#107 +7 Magni-Focuser
Edroy#110 +10 Magni-Focuser

**Telescopes**

Mattingly 2.8X “TV” Spectacles
Specwell 8X20 Monocular

**Glare Filters**

NOIR#U60 Orange Wrap-Arounds
NOIR#U63 Dark Orange Wrap-Arounds
Appendix B

Visual Referral Report

Motor Vehicles Office Address: 
Date: 

Client Information

Name of Client (Surname) (Given Names) Date of Birth 
Address 
Motor Vehicles Representative 
Indicate Reason for Referral 

Client Authorization

The basic vision test given shows that you would be a safer driver if your vision could be improved. Please present this form to a competent authority on vision of your choice. Motor Vehicles will not refer clients to any particular authority on vision. Following the vision examination, please bring the completed form, along with corrective lenses if they are prescribed, to Motor Vehicles.

Please sign your name below to authorize the competent authority on vision to report their findings to Motor Vehicles.

Signature of Client

Instructions to Examining Authority on Vision

The person named above has applied for, or is subject to examination to retain an Alberta Driver Licence. The basic vision test indicates this person would probably be a safer driver with correction. Please complete this form and return it to the client.

Certificate of Examination by Competent Authority on Vision

I, , being licensed to practise 
in the Province of Alberta, have examined the person named above and find the following:

The applicant’s visual acuity rating reads as follows:

<table>
<thead>
<tr>
<th></th>
<th>Without Glasses</th>
<th>With Present Glasses</th>
<th>With Best Possible Correction</th>
<th>Do you recommend Corrective Glasses be fitted for driving purposes?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Right Eye 6/6</td>
<td>Right Eye 6/6</td>
<td>Right Eye 6/6</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Left Eye 6/6</td>
<td>Left Eye 6/6</td>
<td>Left Eye 6/6</td>
<td></td>
</tr>
<tr>
<td>Both Eyes 6/6</td>
<td></td>
<td>Both Eyes 6/6</td>
<td>Both Eyes 6/6</td>
<td></td>
</tr>
</tbody>
</table>

If there is evidence of eye disease or injury, please explain

Findings regarding Motor Vehicles reason for client referral (as indicated in the shaded area above)

Address 
Signature of Examiner

Telephone 
Date of Examination

MV07048 (Rev 09/11)
REFERENCES

Kingsway Avenue, Edmonton, Alberta T5G 0X5. Telephone: (403)451-6824. Fax: (403)452-9918

2. Gormezano, S.R., Raznik, P. Establishment of comprehensive low vision
services in Michigan. Journal of the American Optometric Association,
1993;64:28-36.

3. Freeman, P.B. Getting Started in Low Vision. Optometric Economics,

4. Usdan, M.D. A New Dimension To Your Practice. Optometric Economics,

5. Keswick, C.W. The First Low Vision Clinic At Bethesda Naval Hospital-
Starting A Low Vision Clinic. Low Vision Abstracts, Vol. V, No. 1, Spring
1979.

6. Hood, C.M., Seidman, K.R. Setting Up a Low Vision Practice. Problems in

7. Mattingly
8. Canadian National Institute for the Blind, Alberta-N.W.T. Division Office,
   12010 Jasper Avenue, Edmonton, Alberta, T5K 0P3. Telephone: (403)488-4871.

   Telephone: (416)422-4222. Fax: (416)422-1633.

10. Medical Review Board, Alberta Registries, 9th Floor John E. Brownlee
     Building, 10365 97 Street, Edmonton, Alberta T5J 3N9.
     Telephone: (403)427-8230.

11. AER, c/o First American Bank of VA, 1970 Chain Bridge RD., McLean, VA
     22109-0559.
ESTABLISHING A LOW VISION PRACTICE IN ALBERTA, CANADA

GRADE PAGE

APPLICANTS:

___________________________  
Sherri Norris  

___________________________  
Justin Norris  

ADVISOR:

___________________________  
William Ludlam, O.D.  

GRADE:

A -