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CANADIAN JOURNAL OF OPTOMETRY | REVUE CANADIENNE D'OPTOMÉTRIE

VOL 5 NO 2 | 2013

Canadians embrace Doctors of Optometry

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Les Canadiens appuient Docteurs en optométrie

Découvrez comment la nouvelle campagne d'éducation publique gagne du terrain

THE NEW OPTOMETRISTS IN MZUZU, MALAWI | LES NOUVEAUX OPTOMÉTRISTES DANS MZUZU, MALAWI

AREDS2 NEWS | EYE HEALTH COUNCIL OF ONTARIO GUIDELINES FOR THE CARE OF PATIENTS WITH GLAUCOMA

MINI-SCLERAL LENSES IN THE TREATMENT OF NEUROTROPHIC KERATOPATHY SECONDARY TO MÖBIUS OR MÖBIUS-LIKE SYNDROME

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Erratum

In the original published version of "Improved ways to screen for patients with Fabry disease, involving optometry in a multidisciplinary approach",Vol.74, No.4, page 30, a percentage was quoted incorrectly as 3.5% instead of 0.035%. It should have read: "...615 ophthalmologists were recruited and 125,908 patients were examined. Out of these, 44 subjects (0.035%) were suspects and 21(0.017%) were confirmed as Fabry patients."

Thank you to Dr Andy Palmer for calling this to our attention.

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BY / PAR **DR. LIL LINTON, OD**

My time as your CAO President is coming to an end. As I compose my last President's Podium, I feel honoured to have had the privilege to represent our profession. The time and commitment have been huge, but I feel, well worth the effort. The profession has given me much more than I have given the profession.

I would like to take this opportunity to recognize our colleagues around the CAO Council table. From Newfoundland-Labrador — Doug Côté. Doug is no stranger to CAO. He served as National President in 1998 and returned to serve as the Provincial Councillor in 2006. His past experience has been a valuable asset and his golf tips are also appreciated. Nova Scotia sent us Henry Smit, who brings a common sense approach with a mix of humour and wit that often makes us laugh in spite of ourselves. He has all the makings of a great leader and I hope he pursues this role with CAO. Prince Edward Island's representative is Bonnie Gallant. She is quiet and listens attentively. That is why when she speaks, she does so thoughtfully and in a proactive manner. From my home province, New Brunswick, comes Harry Bohnsack who joined the CAO Council when I became CAO President. His past experiences as NBAO President and Chair, Media Relations, are invaluable. Harry has not been afraid to speak and his insight has led to constructive dialogue. Claude Neilson from Quebec has more experience around the CAO table than any other councillor, including a term as National President in 2001. Claude is a true gentleman. Quebec and CAO are very fortunate — his commitment to our profession is evident in his years of service and this speaks volumes to his character. He also appreciates good wine. OAO appointed Past- Provincial President John Mastronardi. I have come to appreciate John's no- nonsense approach. He often plays the devil's advocate. He is not afraid to discuss contentious issues and is always cognizant of what is best for our profession. I still can't believe he is Italian since he prefers white to red wine! Denis Champagne, from Manitoba, is a classmate. His cool, calm, and collected approach made him the perfect choice to represent CAO with the Canadian Optometric Regulatory Authorities (CORA). He leads by example and as a result earned the respect of all his colleagues. He would have made a great president but chose to let other people shine. He is not only my colleague, he is my friend and I am his number one fan. Barry Thienes served on my executive and is the representative from Saskatchewan. His attention to financial detail over the last two years will allow us to add to our reserve fund, reaching our goal of one million dollars. I have enjoyed working with Barry and I look forward to his continuing success. Tanya Sitter hails from Alberta. I personally owe a great debt of gratitude to Tanya. She was instrumental in putting the N back in the National Public Education Committee (NPEC). Tanya has the potential to be a rising star in our profession and I am looking forward to watching her shine. Last, but definitely not least, is Paul Geneau, the BCAO rep and incoming president. Our first opportunity to work together was with NPEC. When challenges arose, we were able to move forward in the interests of Canadian optometry. Kirsten North, our Past-President, has had a busy year balancing her practice, home life with her new baby Calleigh and her CAO duties. Her commitment to our profession is evident. We appreciate the key role she has played in moving our profession forward.

Coming together is a beginning, working together is progress and staying together is success.

The last member of my team is our Executive Director, Glenn Campbell; Glenn retires after the Edmonton CAO Biennial Congress. Glenn's 30 years of experience have not gone unnoticed. He may be small in stature but he is a GIANT in our optometric world. Glenn deserves a medal. His composed manner and strategic approach have taught me more than you could possibly imagine. His patience is legendary and keeping me in line must have been challenging. Thank you for believing in me and agreeing to see me though my presidency.

I would be remiss if I did not mention the great staff we have at the CAO office — Claudette, Yuli, Catherine, Lise, Doug, Leslie, Cheryl and Dana. Always remember your contributions are appreciated each and every day.

I thought it would be difficult to hand over the gavel but knowing our profession is in good hands makes the transition much easier. I have enjoyed every minute of my presidency and I want to thank all of my team, council, staff and you my colleagues for sharing this great RIDE with me.

Coming together is a beginning, working together is progress and staying together is success.

Mon mandat à la présidence de l'ACO achève. Au moment où je rédige mon dernier mot de présidente, je suis honorée d'avoir eu le privilège de représenter notre profession. L'engagement en temps et en effort a été énorme, mais il en valait vraiment la peine. La profession m'a donné beaucoup plus que je ne lui ai donné.

Je veux profiter de l'occasion pour reconnaître nos collègues qui siègent à la table du Conseil de l'ACO. Doug Côté, de Terre-Neuve-et-Labrador, n'est pas un étranger pour l'ACO. Il a été président national en 1998 et il est revenu servir comme conseiller provincial en 2006. Son expérience a constitué un atout précieux et ses conseils sur le golf sont aussi appréciés. La Nouvelle-Écosse nous a délégué Henry Smit, dont le gros bon sens conjugué à l'humour et à sa présence d'esprit nous font souvent rire de nous-mêmes. Il a tous les atouts pour être un grand chef de file et j'espère qu'il continuera de jouer ce rôle à l'ACO. Bonnie Gallant, qui représente l'Île-du-Prince-Édouard, est tranquille et écoute attentivement. C'est pourquoi lorsqu'elle parle, elle le fait de façon tellement réfléchie et proactive. Harry Bohnsack vient de ma province natale, le Nouveau-Brunswick. Il s'est joint au Conseil de l'ACO lorsque j'ai accédé à la présidence. Son expérience antérieure comme président de l'AONB et responsable des relations avec les médias est des plus précieuses. Harry n'hésite pas à s'exprimer et sa perspicacité entraîne un dialogue constructif. Claude Neilson du Québec a plus d'expérience à la table de l'ACO que tout autre membre du Conseil, car il a notamment rempli un mandat à la présidence nationale en 2001. Claude est un véritable gentilhomme. Le Québec et l'ACO sont très chanceux – ses années de service témoignent de son engagement envers la profession et illustrent vraiment sa nature. Il aime aussi le bon vin. L'AOO a aussi nommé l'ancien président provincial John Mastronardi. J'en suis venu à apprécier le sérieux de John. Il joue souvent le rôle d'avocat du diable. Il n'a pas peur de discuter de questions litigieuses et sait toujours ce qui est préférable pour notre profession. Je ne peux toujours pas croire qu'il est italien puisqu'il préfère le vin blanc au rouge! Denis Champagne, du Manitoba, est un confrère de classe. Son attitude sereine, calme et posée en ont fait le choix parfait pour représenter l'ACO auprès des Autorités canadiennes de réglementation en optométrie (ACRO). Il prêche par l'exemple et c'est pourquoi il a le respect de tous ses collègues. Il aurait fait un grand président, mais il a décidé de laisser à quelqu'un d'autre la chance de briller. Il est non seulement mon collègue, mais il est aussi mon ami et je suis sa grande admiratrice. Barry Thienes a servi à la direction et il représente la Saskatchewan. L'attention qu'il a portée aux détails financiers au cours des deux dernières années nous permettra de gonfler notre fond de réserve et d'atteindre notre objectif d'un million de dollars. J'ai bien aimé travailler avec Barry, qui ne manquera pas de continuer de réussir. Tanya Sitter provient de l'Alberta. Je lui suis personnellement très reconnaissante. Elle a aidé à remettre le N dans le Comité national d'éducation publique (CNEP). Tanya a le potentiel pour devenir une étoile montante de notre profession et j'ai bien hâte de la regarder scintiller. Il y a enfin, mais certainement pas le moindre, Paul Geneau, représentant de l'AOCB et président désigné. Le CNEP nous a donné notre première occasion de travailler ensemble. Lorsque des défis ont surgi, nous avons pu aller de l'avant dans l'intérêt de l'optométrie canadienne. Kirsten North, notre présidente sortante, a eu une année chargée qui l'a obligée à établir un équilibre entre sa pratique, sa vie personnelle avec son nouveau bébé Calleigh et ses fonctions à l'ACO. Son engagement envers la profession est manifeste. Nous apprécions le rôle clé qu'elle a joué en la faisant avancer.

Le dernier membre de mon équipe, c'est notre directeur général, Glenn Campbell, qui prend sa retraite après le Congrès biennal de l'ACO à Edmonton. Les 30 ans d'expérience de Glenn ne sont pas passés sous silence. Il n'est peut-être pas grand physiquement, mais c'est un GÉANT dans le monde de l'optométrie. Glenn mérite une médaille. Son attitude posée et sa pensée stratégique m'ont appris beaucoup plus qu'on ne pourrait l'imaginer. Sa patience est légendaire et il doit avoir eu des défis à relever pour me maintenir dans le droit chemin. Merci d'avoir cru en moi et d'avoir consenti à m'aider à terminer mon mandat à la présidence.

Je manquerais à mon devoir si j'oubliais de mentionner l'excellent personnel que nous avons au bureau de l'ACO – Claudette, Yuli, Catherine, Lise, Doug, Leslie, Cheryl et Dana. N'oubliez jamais que vos contributions sont appréciées tous les jours.

Je pensais qu'il serait difficile de passer le flambeau, mais sachant que notre profession est entre bonnes mains, je trouve la transition beaucoup plus facile. J'ai apprécié chaque minute de mon mandat à la présidence et je remercie tous les membres de l'équipe, ceux du Conseil, le personnel et mes collègues d'avoir partagé avec moi cette belle aventure.

Nous réunir, c'est un début, travailler ensemble, c'est avancer et rester ensemble, c'est réussir.

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Annual General Meetings

BCAO AGM

The BCAO AGM was held February 24, 2013 during the Annual Conference & Optofair, February 22-25 in Vancouver. Dr. Sherman Tung, was elected as President, BCAO for 2013-2014. Thank you to Dr. Surjinder Sahota, Past President, for her 2 years of exemplary service. In addition, the BCAO presented the President's Award to Dr. Mary Lou Riederer, for her commitment to the profession and dedication to children's vision. Honoured for his volunteer work and mentorship, Dr. Brad McDougall was presented with BCAO's 2013 Optometrist of the Year Award. Dr. Pavan Avinashi was presented with the Young Optometrist of the Year Award. Congratulations to all!

MAO AGM

The Manitoba Association of Optometrists AGM was held April 6th in Winnipeg, MB. Dr. Lil Linton attended on behalf of CAO and reported to members. Dr. Neil Campbell was re-elected as President, MAO along with several new Councillors. Dr. Irene Mestito-Dao was named Optometrist of the Year, during the MAO Awards Lunch. Dr. Mestito-Dao is well known to CAO, serving as Co-Chair, 2011 CAO Biennial Congress and as MAO representative to the National Public Education Committee. Congratulations to Drs. Campbell and Mestito-Dao.

OAO Symposium/ AGM

The Ontario Association of Optometrists Symposium, Infomart and AGM were held April 26-28, in Ottawa, Ontario. It was an opportunity for CAO to interact with OAO members and to promote CAO Congress, the new DOC campaign and Vision Health Month. Edmonton Tourism also sent a representative to promote the CAO Congress, July 10-13, 2013. Dr. Lil Linton, President, CAO presented a report to the OAO AGM and Dr. Jeff Goodhew, Co-Chair, National Public Education Committee and Edelman Communications profiled the DOC campaign and Vision Health Month. NPEC also hosted a DOC update for Eye Health Council of Canada industry partners. In conjunction with the OAO Symposium, CAO held a meeting with the Canadian Ophthalmologic Society and Dr. Paul Murphy, new Director, School of Optometry and Vision Science, University of Waterloo. Dr. Farooq Khan, President, OAO presented a report to members and made several awards including the Millennium Award, Dr. Kara Peterson, London; OAO Public Education Award of Merit, Dr. Karen MacDonald, Waterloo; and President's Award, Dr. Sarah MacIver, Waterloo. CAO congratulates the OAO on another successful meeting.

Queensway Optometric Centre Raises $10,025 for the World Sight Day Challenge!

Optometry Giving Sight reports that there has been a fantastic response to the 2012 World Sight Day Challenge, with successful fundraising across practices, schools and companies. Thousands of optometrists and their staff, optical companies, students and individuals from around the world have helped to make the Challenge a remarkable success. Optometry Giving Sight estimates that close to $700,000 was raised globally from the campaign! The top practice in Canada is also the top practice globally for the 2012 World Sight Day Challenge. Queensway Optometric Centre in Ontario is the number one office, raising a total of $10,025! Their incredible efforts were inspired by the top office last year, Mountain View Optometry in Alberta who set the bar very high, and who achieved the second spot nationally and globally. To achieve these results, Queensway Optometric Centre ran patient fundraising events including silent auctions, donated items/baked goods for sale, a wall of paper glasses ($2 donation to display name on paper 'glasses'), staff dress down days, and the doctors also donated their eye exam fees from a day in October. Check out these great testimonials from participants, both practices and corporations, at http://www.givingsight.org/get-involved/world-sight-day-challenge/2012-highlights.html

Dr. Susan Cooper – President, WCO

The World Council of Optometry (WCO) is an international membership organization with a mission to facilitate the enhancement and development of eye and vision care worldwide. We do this through education, policy development and humanitarian outreach. Optometry exists in 90 countries and WCO is committed to promoting optometry worldwide, providing a network for exchanging ideas and innovation. Dr. Susan Cooper was CAO's delegate to WCO from 2007-2009 when she was appointed to the WCO Executive. She was inducted as the WCO President at the WCO General Delegates Meeting on April 21 for a 1 year term. Congratulations!

Dr. Paul Murphy – New Director, School of Optometry & Vision Science, UW

It is a pleasure to announce that as of April 1st, 2013, Dr. Paul Murphy began his role as Director of the School of Optometry & Vision Science at the University of Waterloo (UW). He also holds the title of Associate Dean of Science for Optometry & Vision Science at UW. Dr. Murphy, BSc, PhD, FCOptom, FBCLA, F.A.A.O., F.A.A.O. is an optometrist (Cardiff), with a PhD (Glasgow) and prior to arriving in Waterloo was Reader and Director of Teaching at the School of

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Optometry and Vision Sciences (Cardiff). He is also currently working toward acquiring his MBA from the University of Glamorgan, Pontypridd, UK. Dr. Murphy is looking forward to working with the profession of optometry, both nationally and internationally. He can be reached at: 519-888-4567 ext. 32020 and pjmurphy@uwaterloo.ca.

Beth Witney Appointed CEO, Ontario Association of Optometrists

CAO and the Ontario Association of Optometrists are pleased to announce that Beth Witney accepted the position of Chief Executive Officer of the OAO effective April 8, 2013. Prior to accepting this position, Beth served as Director of Government Relations at Alcon Canada and Wyeth Canada. Beth brings experience and proven success in the area of government relations and strategic planning. The OAO and CAO also thank interim CEO, Lesya Balych-Cooper, who led a transformational change for the OAO over a 7 month period. She was instrumental in transitioning the OAO strategic plan into an immediate action plan and executing upon it. We wish Lesya continued success in the future. Welcome aboard, Beth!

New Executive Director – Quebec Association of Optometrists

The AOQ is proud to present their new Executive Director, Maryse Nolin. Mrs. Nolin is a lawyer and has been a member of the Quebec Bar association since 1989. She previously occupied the post of Crown Prosecutor, spokeswoman for the Treasury Board of Quebec on the file of wage equity, and spokeswoman in the negotiation of the collective labour agreements for the employees working in the health department at the Ministry of Health and Social Services. More recently, she was the Executive Director of the Corporation of Services of the Quebec Bar where she had to assume administration, management and follow-up of the various programs and services offered to the 24,000 Quebec Bar members. With this experience and willingness to meet new challenges, Maryse now takes the helm at the AOQ as Executive Director. Welcome aboard!

Dr. Neepun Sharma – New Chair of CAO Diabetes Committee

The Canadian Association of Optometrists is pleased to announce the appointment of Dr. Neepun Sharma, Edmonton, Alberta as the new Chair of the CAO Diabetes Committee. Dr. Sharma has served optometry at a provincial and national level including as President, Alberta Association of Optometrists from 2008-2010. Dr. Sharma replaces Dr. Richard Lee, who served as the Diabetes Committee Chair from 2006 - 2013. Dr. Lee and his committee enhanced CAO's relationship with the Canadian Diabetes Association, prepared a core document for the optometric care of patients with diabetes and many other initiatives. Current committee members are Drs. Henry Smit, Garry Best, Dianna Delong, and Anju Clement. Many thanks to Drs. Lee and Sharma for serving the profession in this important role.

Optometry Student Hired for the Summer

Once again, CAO has hired a second year Optometry student for the summer months. This year, CAO solicited applications from student members and selected a small number to interview. From the impressive group of applicants, CAO offered the position to Erin Kelcher, a second year student from the School of Optometry and Vision Science, UW. Erin is originally from Edmonton, AB and has a B.Sc., Specialization in Psychology, University of Alberta. She will work with CAO from the first of May to the end of July/early August. Erin may be contacted at: erin@opto.ca or 1-888-263-4676 x 217.

J&J Vision Care - Appointment of Business Director

Johnson & Johnson Vision Care division of Johnson & Johnson Inc., announced the appointment of Mr. Joe Matton, Business Director, Canada. In his new role, Mr. Matton will oversee sales activities in Canada, and serve as the primary business contact for customers. Mr. Matton joined Johnson & Johnson Vision Care in 2005 and since December 2009 has served as National Sales Director. Born and educated in Canada, Mr. Matton received his BA in Economics from the University of Western Ontario, and his BCOMM in Accounting from the University of Windsor.

COETF Trustees and Awards Meeting

The Canadian Optometric Education Trust Fund (COETF) Trustees and Awards Committee met April 6-7 in conjunction with the MAO Annual Meeting in Winnipeg, MB. The Trustees had a full agenda including approval of 2012 financial statements and investment policy and a report from the National Fundraising Committee. At the COETF Awards Meeting, $44,500 was allocated to 24 applicants (total of 36 submitted) for optometric research projects. CAO members are reminded that COETF is Optometry's Charity in Canada. Donations may be made online at http://opto.ca/cao-info/charity/the-canadian-optometric-education-trust-fund/

Status of U.S. Legislation – HB 527

The Louisiana state legislature has introduced Bill HB 527, which would expand optometrists' scope of practice to include eye surgeries including some laser and incisional procedures. HB 527 would legally redefine Louisiana optometrists as 'optometric physicians.' Optometrists would be permitted to inject medication or use lasers, scalpels, electric cauteries, or ionizing radiation to perform certain procedures. ODs would still be prohibited from administering general anesthesia or performing 16 specific surgeries such as retina laser procedures, LASIK and PRK. For more information visit: http://eyecareaccess.com/?p=25

Want to Teach Optometry in Cameroon Africa?

Optometrists are being sought to teach in an emerging optometry program in Yaoundé, Cameroon. Cameroon is bilingual, but teaching is preferably done in French. For additional information visit: brienholdenvision.org/be-involved/employment.html or contact Luigi Bilotto, OD at l.bilotto@brienholdenvision.org or 514-830-1174.

CAO Participation at Meetings

Dr. Denis Champagne, CAO Councillor for Manitoba, represented CAO at the 2013 National Optometric Continuing Education Conference, hosted by the Association of Regulatory Bodies of Optometry (ARBO) held April 27-28 in Chicago. In all, seventy six (76) stakeholders representing, in no particular order, various Associations, Boards, Societies, Schools of Optometry, CE consultants and lecturers, Adult Learning consultants, Industry, ARBO Board and Committees, Armed Forces, Medicine, Nursing, Pharmacy, American Academy and NBEO attended. Dr. Barry Thienes, Secretary Treasurer, CAO also represented CAO at the Advisory Committee meeting of the International Optometric Bridging Program held March 27 at the School of Optometry & Vision Science, UW. Both meetings offered opportunities to learn more about licensing and education policy and programs.

Renewal of Member Programs

CAO is pleased to confirm that all member programs for frames and lenses have been renewed for 2013. These programs offer quality, competitively priced product that is private labelled for CAO members only. There is also additional information on all CAO member programs on the CAO member website, login from opto.ca. The programs are:

HOYA ProTegrity iD lenses – HOYA features an advanced premium FreeForm lens. Contact your Hoya Territory Manager for more information. Edmonton 888-291-0036; Montreal 877-720-4692; Toronto 888-258-4692; Vancouver 866-454-4692; Winnipeg 855-697-9366.

Carl Zeiss Vision – Universa, is an advanced customized progressive lens design, at a very competitive price. Also the Universa HD Office Lens. Contact your laboratory, or your Carl Zeiss Vision or Centennial lens representative.

Centennial Optical Encore Frames– offers over 200 styles at preferred pricing. The frames are available in a wide range of styles and materials with a full exchange policy and 2 year warranty. The Encore line includes the Sophisticate (women's line) and Encore Kids Frames. Centennial and CAO also introduced a frame and lens package with the Encore/Sophisticate frame, single vision lenses, scratch resistant coating on both sides - all starting at under $32.00. Visit www.centennialoptical.com for a listing of branch offices or phone 800-268-1670 (Toronto: 416-739-0181).

Professional Liability Insurance Renewal

The CAO Professional Liability Insurance program (outside of Ontario and Quebec) will see a small rate increase (5%) at renewal to keep the program healthy. The $3,000,000 limit of insurance will be changing from $420 to $440 per year and the $5,000,000 limit will go from $525 to $550 per year. The program is growing and the larger the group the better for all concerned. Unfortunately, there was a loss in Eastern Canada that will be very large by the time it is settled. The program continues to be one of the best available and at very competitive rates. The insurer added an Abuse/Sexual Misconduct Extension to the policy this year with a $100,000 sublimit. Renewal is in July, 2013.

In Memoriam

CAO's sincere condolences and wishes go out to the Bernot family for the loss of Dr. Josh Bernot. Josh passed away on April 22, 2013 at the age of 30 following a tragic skiing accident in the back country near Revelstoke, BC. He is survived by his wife, fellow optometrist Dr. Kim Bernot as well as his parents and large extended family in the Cleveland, Ohio area. Josh was born and raised in the Cleveland area, received his Doctor of Optometry degree from the Illinois College of Optometry in 2009 and joined Orchard Park Optometry in Kelowna after graduation.

Josh had a great passion for the outdoors and for adventure. Among those adventures he hiked the West Coast trail

on his honeymoon with his new bride Kim, played soccer, participated in grueling cross-country races and sand-boarded down the dunes in Morocco. As a student, Josh took part in a volunteer VOSH project in Mexico and in February 2013 participated in another volunteer eye care project with VOSH Santa Cruz in Morocco. As an optometrist, he was highly respected by his loyal patients and much loved by the staff at Orchard Park Optometry.

In Memoriam

CAO wishes to extend sincere condolences to the family and friends of Michael George Edwards, who passed away at the age of 69, on May 17th, 2013. Michael of Lakefield, ON (formerly of Toronto, ON and born in Clayhanger, England) died at home surrounded by his family after struggling with cancer. As a partner of Ryan Edwards Communications, Michael was instrumental in developing the creative ad campaigns for NPEC and CAO, including "Lights Out" and "Inside Out." and more recently the CAO Congress Identities. Michael embodied a passion for life, energetically bringing creativity to everything he touched. He is survived by his wife and creative partner, Stephanie Edwards, his four children and extended family. He will be dearly missed by them, and by his friends, clients and colleagues and his friend and partner of 24 years, Jim Ryan. He was a pleasure to work with and his creative spark will forever be remembered by those who served on the NPEC committee and the CAO staff.

Assemblées générales annuelles

AGA de l'AOCB

L'AOCB a tenu son AGA le 24 février 2013 au cours du Congrès annuel et Optofoire du 22 au 25 février à Vancouver. Le Dr Sherman Tung a été élu à la présidence de l'AOCB pour l'année 2013-2014. Merci à la Dre Surjinder Sahota, présidente sortante, pour ses deux années de service exemplaire. L'AOCB a présenté le prix du président à la Dre Mary Lou Riederer pour son engagement envers la profession et son dévouement envers la vision des enfants. Honoré pour ses activités de bénévolat et de mentorat, le Dr Brad McDougall a reçu le prix d'Optométriste de l'année 2013 de l'AOCB. Le Dr Pavan Avinashi a reçu le prix de Jeune optométriste de l'année. Félicitations à tous!

AGA de l'AOM

L'Association des optométristes du Manitoba a tenu son AGA le 6 avril à Winnipeg. La Dre Lil Linton y représentait l'ACO et a présenté un rapport aux membres. Le Dr Neil Campbell a été réélu à la présidence de l'AOM et plusieurs nouveaux membres du Conseil ont été élus. La Dre Irene Mestito-Dao a aussi été nommée optométriste de l'année au cours du déjeuner de remise des prix de l'AOM. La Dre Mestito-Dao est bien connue à l'ACO, où elle a coprésidé le Congrès biennal 2011 et comme représentante de l'AOM au Comité national d'éducation publique. Félicitations aux Drs Campbell et Mesito-Dao.

Symposium et AGA de l'AOO

L'Association des optométristes de l'Ontario a tenu son symposium, Infomart, et son AGA du 26 au 28 avril à Ottawa (Ontario). Ce fut une occasion pour l'ACO d'échanger avec les membres de l'AOO et de promouvoir le Congrès de l'ACO, la nouvelle campagne DOC et le Mois de la santé visuelle. Tourisme Edmonton a aussi délégué une représentante pour promouvoir le Congrès de l'ACO du 10 au 13 juillet 2013. La Dre Lil Linton, présidente de l'ACO, a présenté un rapport à l'AGA de l'AOO et le Dr Jeff Goodhew, coprésident du Comité national d'éducation publique et Edelman Communications ont présenté le profil de la campagne DOC et le Mois de la santé visuelle. Le CNEP a aussi présenté une mise à jour sur la campagne DOC à l'intention des partenaires de l'industrie du Conseil canadien de la santé de l'œil à Toronto. Dans le contexte du symposium de l'AOO, l'ACO a tenu une réunion avec la Société canadienne d'ophtalmologie et le Dr Paul Murphy, nouveau directeur de l'École d'optométrie et de sciences de la vision de l'Université de Waterloo. Le Dr Farooq Khan, président de l'AOO, a présenté un rapport aux membres et diverses distinctions, y compris le Prix du millénaire à la Dre Kara Peterson, de London, le Prix du mérite en éducation publique de l'AOO à la Dre Karen MacDonald, de Waterloo, et le Prix du président à la Dre Sarah MacIver, de Waterloo. Très bonne réunion!

Le Queensway Optometric Centre réunit 10 025 $ au cours du défi de la Journée mondiale de la vue!

Optometry Giving Sight signale une réaction fantastique à la Journée mondiale de la vue 2012 et des activités de financement couronnées de succès dans des cabinets, des écoles et des entreprises. Des milliers d'optométristes et de membres de leur personnel, de fabricants de produits d'optique, d'étudiants et de personnes du monde entier ont aidé à faire du défi une réussite remarquable. Optometry Giving Sight estime que la campagne a réuni presque 700 000 $ dans le monde entier! Le cabinet qui s'est classé premier au Canada s'est aussi classé au premier rang dans le monde pour l'édition 2012 du défi de la Journée mondiale de la vue. Le Queensway Optometric Centre de l'Ontario se classe premier, car il a réuni au total 10 025 $! Ces efforts incroyables

se sont inspirés du cabinet qui s'est classé premier l'an dernier, Mountain View Optometry en Alberta, qui a fixé la barre très haute et s'est classé au deuxième rang au Canada et dans le monde. Pour produire de tels résultats, le Queensway Optometric Centre a organisé des activités de financement avec des patients, y compris des encans silencieux, des ventes d'articles donnés ou de pâtisserie, un mur de lunettes en papier (don de 2 $ pour afficher un nom sur des « lunettes » en papier), des journées de tenue détente chez les membres du personnel, sans oublier que les docteurs en optométrie ont aussi fait don de leurs honoraires d'examens de la vue d'une journée en octobre. Vérifiez ces grands témoignages de participants, à la fois cabinets et entreprises, à http://www.givingsight.org/get-involved/world-sight-day-challenge/2012-highlights.html.

Dre Susan Cooper – Présidente du CMO

Le Conseil mondial de l'optométrie (CMO) est un organisme international axé sur les membres qui a pour mission de faciliter l'amélioration et le développement des soins oculovisuels dans le monde. Nous y parvenons par l'éducation, l'élaboration de politiques et une approche humanitaire. L'optométrie existe dans 90 pays et le CMO est voué à promouvoir la profession dans le monde entier en offrant un réseau d'échange d'idées et d'innovation. Déléguée de l'ACO au CMO de 2007 à 2009, la Dre Susan Cooper a été nommée à la direction du CMO. Actuellement présidente désignée, son investiture à la présidence du CMO aura lieu au cours de l'assemblée générale des délégués du CMO le 21 avril, pour un mandat d'un an. FÉLICITATIONS!

Dr Paul Murphy – Nouveau directeur, École d'optométrie et des sciences de la vision, UW

Nous nous réjouissons d'annoncer que le Dr Paul Murphy est entré en fonction le 1er avril 2013, comme directeur de l'École d'optométrie et des sciences de la vision à l'Université de Waterloo (UW). Il est aussi doyen associé des sciences pour l'optométrie et les sciences de la vision à l'UW. Le Dr Murphy, B.Sc., PhD, FCOptom, FBCLA, E.A.A.O., F.A.A.O., est optométriste (Cardiff) et titulaire d'un doctorat (Glasgow). Avant son arrivée à Waterloo, il était chargé de cours et directeur de l'enseignement à l'École d'optométrie et des sciences de la vision (Cardiff). Il fait aussi actuellement son MBA à l'Université de Glamorgan, Pontypridd, R.U. Le Dr Murphy a hâte de collaborer avec la profession sur la scène tant nationale qu'internationale. À compter du 1er avril, il est possible de le joindre au 519-888-4567, poste 32020, et à pjrmurphy@uwaterloo.ca.

Beth Witney nommée chef de la direction, Association des optométristes de l'Ontario

L'ACO et l'Association des optométristes de l'Ontario sont heureuses d'annoncer que Beth Witney a accepté le poste de chef de la direction de l'AOO à compter du 8 avril 2013. Beth a été auparavant directrice des Relations gouvernementales chez Alcon Canada et Wyeth Canada. Beth a de l'expérience des relations gouvernementales et de la planification stratégique, domaines où elle a connu du succès. L'AOO et l'ACO remercient aussi la chef de la direction intérimaire, Lesya Balych-Cooper, qui a piloté une transformation à l'AOO pendant sept mois. Elle a aidé à traduire le plan stratégique de l'AOO en plan d'action immédiat et à y donner suite. Nous souhaitons un succès continu à Lesya. Bienvenue, Beth!

Nouvelle directrice générale – Association des optométristes du Québec

L'AOQ est fière de présenter sa nouvelle directrice générale, Maryse Nolin. Avocate, Me Nolin est membre de l'Association du Barreau du Québec depuis 1989. Elle était auparavant procureure de la Couronne, porte-parole du Conseil du Trésor du Québec dans le dossier de l'équité salariale et porte-parole dans le contexte de la négociation de conventions collectives d'employés du secteur de la santé au ministère de la Santé et des Services sociaux. Elle a été récemment directrice générale de la Corporation des services du Barreau du Québec où elle a dû prendre en charge l'administration, la gestion et le suivi de divers programmes et services offerts aux 24 000 membres du Barreau du Québec. Avec cette expérience et désireuse de relever de nouveaux défis, Maryse prend maintenant la barre de l'AOQ comme directrice générale. Bienvenue!

Le Dr Neepun Sharma – Nouveau président du Comité du diabète de l'ACO

L'Association canadienne des optométristes est heureuse d'annoncer la nomination du Dr Neepun Sharma d'Edmonton (Alberta) à la présidence du Comité du diabète de l'ACO. Le Dr Sharma a servi l'optométrie aux échelons provincial et national, notamment comme président de l'Association des optométristes de l'Alberta de 2008 à 2010. Le Dr Sharma remplace le Dr Richard Lee, qui a présidé le Comité du diabète de 2006 à 2013. Le Dr Lee et son

comité ont amélioré la relation entre l'ACO et l'Association canadienne du diabète, produit un document fondamental au sujet du soin optométrique des patients vivant avec le diabète et lancé beaucoup d'autres initiatives. Le Comité est constitué actuellement des Drs Henry Smit, Garry Best, Dianna Delong et Anju Clement. Merci aux Drs Lee et Sharma.

Embauche d'une étudiante en optométrie pour l'été

En 2012, l'ACO a embauché pour l'été une étudiante de deuxième année d'optométrie. Cette année, l'ACO a sollicité des candidatures de membres étudiants et en a invité quelques-uns à une entrevue. Dans ce groupe impressionnant de candidats, l'ACO a offert le poste à Erin Kelcher, étudiante de deuxième année de l'École d'optométrie et de sciences de la vision, UW. Originaire d'Edmonton AB, Erin a un baccalauréat en sciences avec spécialisation en psychologie de l'Université de l'Alberta. Elle travaillera avec l'ACO à compter du 1er mai jusqu'à la fin de juillet ou au début d'août.

Soins de la vue – Nomination d'un directeur commercial

Johnson & Johnson Soins de la vue, division de Johnson & Johnson, Inc., a annoncé la nomination de M. Joe Matton au poste de directeur commercial, Canada. Dans son nouveau rôle, M. Matton surveillera les activités de vente au Canada et constituera le principal contact d'affaires pour les clients. M. Matton s'est joint à Johnson & Johnson Soins de la vue en 2005 et il est directeur national des Ventes depuis décembre 2009. Né au Canada où il a fait ses études, M. Matton a reçu son baccalauréat en économie de l'Université Western Ontario et son BCOMM en comptabilité de l'Université de Windsor.

Réunion des administrateurs de la FFOCE et du Comité d'attribution

Les administrateurs du Fonds de fiducie des optométristes canadiens pour l'éducation (FFOCE) et le Comité d'attribution se sont réunis les 6 et 7 avril dans le contexte de l'assemblée annuelle de l'AOM à Winnipeg MB. Les administrateurs avaient un ordre du jour complet, y compris l'approbation des états financiers de 2012 et de la politique de placement, ainsi que d'un rapport du Comité national de financement. Au cours de la réunion sur les bourses de la FFOCE, on a attribué 44 500 $ à 24 candidats (sur un total de 36 demandes présentées) pour des projets de recherche en optométrie. On rappelle aux membres que la FFOCE est l'organisme de bienfaisance de l'optométrie au Canada. Il est possible de faire un don en ligne à http://opto.ca/cao-info/charity/the-canadian-optometric-education-trust-fund/

Statut de mesures législatives aux É.-U.- HB 527

L'assemblée législative de l'État de la Louisiane a présenté le projet de loi HB 527 qui étendrait le champ d'exercice des optométristes pour y inclure des chirurgies de l'œil, y compris certaines interventions au laser et d'autres comportant des incisions. Le projet de loi HB 527 redéfinirait légalement les optométristes de la Louisiane comme « médecins optométristes ». Les optométristes pourraient injecter des médicaments ou utiliser des lasers, des scalpels, des électrocautères ou les rayons ionisants pour pratiquer certaines interventions. Les DO n'auraient toujours pas le droit d'administrer d'anesthésie générale ou de pratiquer 16 actes chirurgicaux en particulier, notamment des interventions au laser pratiquées sur la rétine comme les interventions LASIK. Pour en savoir davantage, visiter : http://eyecareaccess.com/?p=25

Vous voulez enseigner l'optométrie au Cameroun, en Afrique?

On recherche des optométristes pour enseigner dans un nouveau programme d'optométrie à Yaoundé, au Cameroun. Le Cameroun est bilingue, mais on y privilégie le français dans l'enseignement. Pour en savoir davantage : http://www.brienholdenvision.org/be-involved/employment.html, ou communiquez avec Luigi Bilotto, DO, à l.bilotto@brienholdenvision.org ou composez le +1-514-830-1174.

Participation de l'ACO à des assemblées

Le Dr Denis Champagne, conseiller de l'ACO pour le Manitoba, a représenté l'Association à la Conférence nationale de formation continue en optométrie de 2013 organisée par l'Association des organismes de réglementation de l'optométrie (ARBO) tenue les 27 et 28 avril à Chicago. Au total, soixante-seize (76) interlocuteurs représentant, dans aucun ordre en particulier, des associations, conseils, sociétés, écoles d'optométrie, consultants et conférenciers en FC, consultants en apprentissage par les adultes, l'industrie, le Conseil et les comités de l'ARBO, les Forces armées, la médecine, les soins infirmiers, la pharmacie, l'American Academy et le NBEO étaient présents. Le Dr Barry Thienes, secrétaire-trésorier de l'ACO, a aussi représenté celle-ci à la réunion du Comité consultatif du Programme optométrique international de transition le 27 mars à l'École d'optométrie et des sciences de la vision, UW. Les deux réunions offraient des occasions d'en apprendre davantage sur les politiques et les programmes d'autorisation et d'éducation.

Renouvellement de programmes à l'intention des membres

L'ACO est heureuse de confirmer que des programmes de montures et lentilles pour les membres ont été renouvelés en 2013. Ces programmes offrent aux membres de l'ACO seulement des produits de qualité, vendus à des prix concurrentiels et portant des étiquettes privées. Pour trouver d'autres renseignements au sujet des programmes aux membres de l'ACO, rendez-vous sur le site des membres de l'ACO, à partir de www.opto.ca. Les programmes sont les suivants :

Lentilles HOYA ProTegrity iD – HOYA est un concept avancé de lentilles haut de gamme, appelées ProTegrity. Pour en savoir davantage, veuillez communiquer avec le gestionnaire HOYA de votre territoire : Edmonton, 888-291-0036; Montréal, 877-720-4692; Toronto, 888-258-4692; Vancouver, 866-454-4692; Winnipeg, 855-697-9366.

Carl Zeiss Vision – Universa – concept de lentilles progressives personnalisées avancées à un prix concurrentiel. Aussi la lentille Universa HD Office. Veuillez communiquer avec votre laboratoire ou avec votre représentant de Carl Zeiss Vision ou de Centennial.

Montures Centennial Optical Encore – Plus de 200 modèles offerts à des prix préférentiels. Les montures sont disponibles dans un vaste éventail de styles et de matériaux et comportent une politique d'échange complet et une garantie de deux ans. La gamme Encore inclut les montures Sophisticate (pour femmes) et Encore Kids. Centennial et l'ACO ont aussi lancé l'ensemble monture et lentilles composé de la monture Encore/Sophisticate, des lentilles unifocales, d'un revêtement anti-rayures des deux côtés – le tout à compter de moins de 32 $. Cliquez sur www.centennialoptical.com pour consulter la liste des bureaux régionaux, ou composez le 800-268-1670 (à Toronto, faites le 416-739-0181).

Renouvellement de l'assurance-responsabilité professionnelle

Le programme d'assurance responsabilité civile et professionnelle de l'ACO (sauf en Ontario et au Québec) impose une modeste augmentation des taux (5 %) au moment du renouvellement pour garder le programme en bonne santé. La cotisation pour l'assurance de 3 000 000 $ passera de 420 $ à 440 $ par année et celle de l'assurance de 5 000 000 $, de 525 $ à 550 $ par année. Le programme prend de l'ampleur et plus le groupe sera nombreux, meilleur ce sera pour tous les intéressés. Il y a eu dans l'est du Canada un sinistre qui représentera un montant très important lorsque la question sera réglée. Le programme demeure un des meilleurs disponibles et est offert à des taux très concurrentiels. L'assureur a ajouté à la police cette année un avenant sur la violence et l'inconduite sexuelle qui comporte une sous-limite de 100 000 $. Le renouvellement se fera en juillet 2013.

In Memoriam

L'ACO transmet ses plus sincères condoléances à la famille Bernot à la suite de la disparition du Dr Josh Bernot. Josh est décédé le 22 avril 2013 à 30 ans à la suite d'un tragique accident de ski survenu dans l'arrière-pays près de Revelstoke (C.B.) Lui survivent son épouse, la Dre Kim Bernot, collègue optométriste, ainsi que ses parents et une grande famille élargie dans la région de Cleveland, en Ohio.

Josh est né et a grandi dans la région de Cleveland, a reçu son doctorat en optométrie du College of Optometry de l'Illinois en 2009 et s'est joint à Orchard Park Optometry à Kelowna après avoir obtenu son diplôme. Grand passionné de plein-air et d'aventure, Josh a notamment parcouru la piste de la côte Ouest pendant sa lune de miel avec sa nouvelle épouse Kim, joué au soccer, participé à de dures courses de cross-country et descendu sur planche les dunes de sable au Maroc. Comme étudiant, Josh a participé à un projet de bénévolat VOSH au Mexique et en février 2013, à un autre projet de bénévolat en soins oculovisuels avec VOSH Santa Cruz au Maroc. Comme optométriste, il était très respecté par ses loyaux patients et très aimé du personnel d'Orchard Park Optometry.

In Memoriam

L'ACO présente ses condoléances les plus sincères à la famille et aux amis de Michael George Edwards, décédé à l'âge de 69 ans le 17 mai 2013. Michael, de Lakefield ON (auparavant de Toronto ON et originaire de Clayhanger, en Angleterre) est décédé chez lui entouré des membres de sa famille après s'être battu contre le cancer. À titre d'associé de Ryan Edwards, Michael Edwards a participé à la création des campagnes publicitaires créatives pour le CNEP et l'ACO, y compris « Lights Out » et « De fond en comble ». Il a participé plus récemment à la création de l'identité du Congrès de l'ACO. Michael incarnait la passion de vivre, apportant une créativité énergique à tout ce qu'il entreprenait. Lui survivent son épouse et partenaire en créativité, Stephanie Edwards, ses quatre enfants et sa famille élargie. Il leur manquera énormément, tout comme à ses amis, clients et collègues et son ami et associé depuis 24 ans, Jim Ryan. Il était agréable de collaborer avec lui et ceux qui ont travaillé au CNPE et les membres du personnel de l'ACO n'oublieront jamais sa créativité brillante.


Introducing the new
Doctors of Optometry campaign
Présentation de la nouvelle campagne
des Docteurs en optométrie

Doctors of Optometry campaign in full flight after launch

Based on research suggesting Canadians trust Doctors as the most credible source for health information, the campaign brands optometrists as Doctors and has a simple message: **Doctors of Optometry are a single source for all your vision, eye health and eyewear needs.**

It's been a busy six months since the 10 provincial optometric associations and CAO voted unanimously to support a new national public education campaign — a campaign supported by a financial contribution from every CAO member across the country.

Tools and resources for the public

doctorsofoptometry.ca is available for the general public and features:

- A national landing page with access to the 10 provincial campaign sites
- A comprehensive eye health library containing information on eye health, dispensing, therapeutics and more
- Patient stories told through video, as well as videos of Doctors of Optometry answering commonly asked questions about all things eye health and eye care related
- A 'Find a Doctor' tool, linking to each provincial association's database, allowing Canadians to search for a local Doctor of Optometry

Member & front office staff engagement

members.doctorsofoptometry.ca is for members and front office staff exclusively and includes:

- A variety of staff resources with tips on how to leverage the campaign in your practice
- Contests and promotions for you and your staff
- Additional collateral materials available to order online
- A forum and photo gallery to enable dialogue about the campaign
- Media coverage clips about the campaign

We're on Facebook

The Facebook page **facebook.com/AskaDoctorofOptometry** was launched in February. More people are on Facebook per capita in Canada than in any other nation in the world. Facebook is used by one in two Canadians and is a great medium to engage with consumers and post eye health and eye care information that they can share with their friends.

By the end of April, our Facebook community totaled over 27,000 fans — a growth rate of over 60% since the national Facebook page launched at the end of February this year. Visitors have asked Doctors of Optometry over 100 questions through the Facebook page, and the responses were posted on the page directly. Thank you to the 57 Doctors of Optometry from across the country who are volunteering to answer patient questions.

The DOC campaign in your office

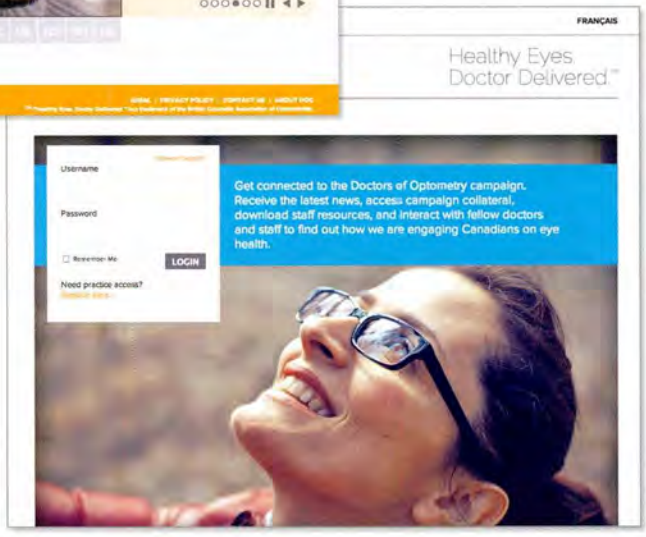
By the end of May, Doctors of Optometry will have received a package of print collateral for distribution in their offices.

We ask that you and your staff prominently display these materials in your practice and distribute them to patients as part of their eye exam, when appropriate. In addition to brochures and rack cards, you will also receive a poster and postcards promoting the campaign's Facebook page, two door/window decals, and a tear pad on Steps to Proper Fitting of Glasses and Contact Lenses.

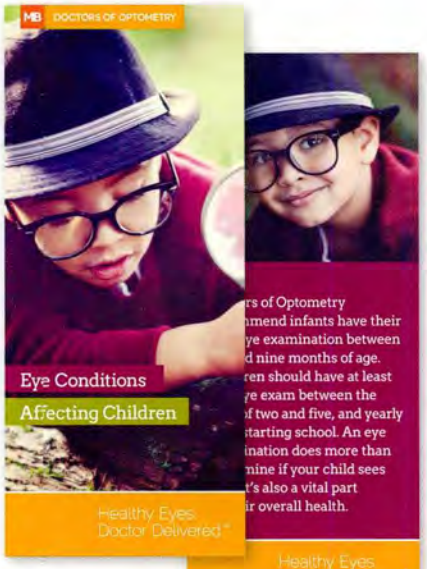
Please hang the poster in an area where patients will see it and place the decal on your front door or window to let your patients know the eye care they receive is Doctor delivered. Be sure to take a photo of your team in front of the decal and share it on the members site for the chance to win a prize for your office. Check out the members site for more details at **members.doctorsofoptometry.ca**

DOCTORS OF OPTOMETRY CANADA

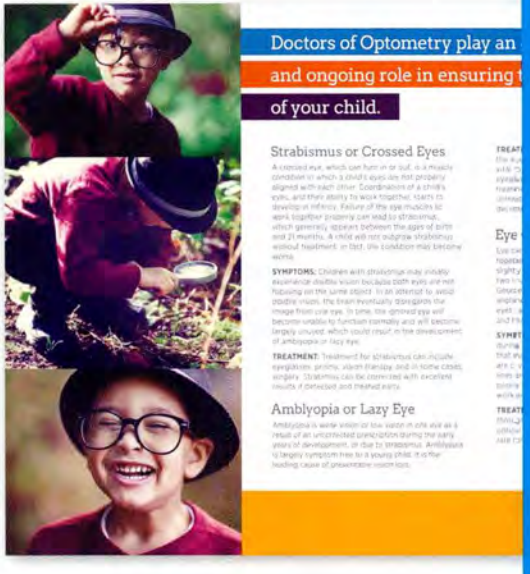
the DOC public-facing website



the DOC members site



a DOC brochure



7 Ways
to Get Involved in the Campaign

To leverage your investment in the DOC national public education campaign, consider doing any or all of the following:

1. Visit the members website at **members.doctorsofoptometry.ca** to learn more about the campaign and enter to win prizes for your office.
2. If you don't already have a Facebook page of your own, use the DOC Facebook page as if it were your own. Contact **info@doctorsofoptometry.ca** and we can explain how to set this up.
3. Like the DOC Facebook page and volunteer to answer patient questions.
4. Once you've liked the page from your practice's Facebook page, email us your URL — we'll like you back!
5. Distribute DOC materials and ask your patients to check out the DOC website and like the Facebook page.
6. Place the poster in a prominent location in your office, and the decal on your door or window.
7. Send us a patient story that can be turned into a video. Watch patient's stories at **youtube.com/DoctorsofOptometry**

La campagne des Docteurs en optométrie bat son plein après son lancement

Selon les résultats d'une recherche suggérant que les Canadiens considèrent les docteurs comme la source la plus crédible d'information sur la santé, nous avons décidé de promouvoir l'image de marque des optométristes à titre de docteurs à l'aide d'un message tout simple : **Les Docteurs en optométrie constituent une ressource de choix pour répondre à tous vos besoins en matière de vision, de soins des yeux et de lunetterie.**

Les six mois qui ont suivi le vote unanime par les dix associations provinciales d'optométristes et l'Association canadienne des optométristes en faveur d'une nouvelle campagne nationale de sensibilisation du public — campagne appuyée financièrement par chaque membre de l'Association au pays — ont été très occupés.

Outils et ressources accessibles au public

Le site **docteursenoptometrie.ca** est accessible au grand public et comprend :

- une page de renvoi nationale qui donne accès aux sites des dix campagnes provinciales;
- une bibliothèque complète sur la santé oculovisuelle qui contient de l'information sur la santé des yeux, les examens, les traitements et bien plus encore;
- des vidéos qui présentent des témoignages de patients et des docteurs en optométrie répondant aux questions les plus fréquentes sur tous les sujets liés à la santé et aux soins des yeux;
- un outil « Trouvez un docteur » qui donne accès à la base de données de chaque association provinciale afin que les Canadiens puissent trouver un docteur en optométrie.

Engagement des membres et du personnel de réception

Le site **membres.docteursenoptometrie.ca**, réservé aux membres et au personnel de réception, vous offre :

- une variété de ressources ainsi que des conseils sur la façon d'utiliser la campagne au profit de votre clinique;
- des concours et des promotions pour vous et votre personnel;
- du matériel de soutien supplémentaire que vous pouvez commander en ligne;
- un forum et une galerie de photos pour favoriser les échanges sur la campagne;
- des articles parus dans les médias au sujet de la campagne.

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À la fin du mois de mai, les Docteurs en optométrie auront reçu une trousse contenant du matériel à remettre à leurs patients.

Nous vous invitons à placer le matériel en évidence dans votre clinique et, s'il y a lieu, à remettre les documents à vos patients dans le cadre de leur examen de la vue. En plus des dépliants et des cartes publicitaires, vous recevrez deux décalques pour porte ou fenêtre, ainsi qu'un bloc de feuilles détachables sur les étapes pour un ajustement adéquat des lunettes et des lentilles cornéennes. Veuillez placer l'affiche bien à la vue de vos patients et coller les décalques sur la porte d'entrée ou la fenêtre avant de votre clinique pour signaler à vos patients que leurs soins de la vue sont dispensés par un docteur en optométrie. Assurez-vous de prendre une photo de votre équipe devant les décalques et publiez-la sur le site des membres afin que votre clinique ait la chance de gagner un prix. Pour obtenir de plus amples renseignements, consultez le site des membres à l'adresse membres.**docteursenoptometrie.ca**

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2. Créez un lien entre votre site Internet et le site de la campagne (**docteursenoptometrie.ca**). N'hésitez pas à communiquer avec nous à **info@docteursenoptometrie.ca** si vous avez besoin d'aide.
3. Demandez à vos patients de consulter le site Internet de DOC et encouragez votre personnel de réception à distribuer les documents fournis dans la trousse.
4. Collez le décalque bien en vue sur votre porte ou fenêtre.
5. Prenez une photo avec votre équipe devant le décalque posé sur la porte ou la fenêtre et soumettez-la dans la galerie de photos des membres du site Internet.

Important Information for Vision Care Providers – Veterans Affairs Canada (VAC)
Informations importantes pour les fournisseurs de soins de la vue –Anciens Combattants Canada (ACC)

BENEFIT GRID CHANGES – Veterans Affairs Canada (VAC) recently revised the Benefit Grid for Program of Choice (POC) 14 – Vision (Eye) Care. Beginning May 24, 2013 the following benefit grid changes for low vision benefits will be in effect. The revisions include new benefit codes, as well as prescriber, frequency and dollar limit changes.

CHANGEMENTS AU TABLEAU DES AVANTAGES – Ancien Combattants Canada (ACC) a récemment révisé le tableau des avantages du programme de choix (PDC) 14 – Soins de la vue. Le 24 mai 2013, les changements visant les garanties de basse vision apportés au tableau des avantages suivant entreront en vigueur. Les modifications comprennent des nouveaux codes d'avantages, prescripteurs, limites de fréquence et limites en dollars.

Modifications of Exisiting Benefit Codes – Effective May 24, 2013
Modification des codes d'avantages – en vigueur le 24 mai 2013

Code	Description	Comments / Commentaires
623974	Low Vision Aids – Large Button Telephone / Aides pour malvoyants – téléphone à grosses touches	Revised Dollar Limit $110.00 / Limite en dollars révisée 110 $
623982	Low Vision Lamps / Lampes pour basse vision	Revised Dollar Limit $200.00 / Limite en dollars révisée 200 $
623970	Low Vision Aids – Telescopic Aids (Bioptic, Full Diameter, Reading, Behind-the-lens / Aides pour malvoyants – aides télescopiques (aide bioptique, verres grand format, aide à la lecture, télescope situé derrière le verre)	Revised Dollar Limit $250.00 / Limite en dollars révisée 250 $
N/A	Benefit Grid Note 22 is deleted / La note 22 du tableau des avantages est supprimée	Remove Note 22: VAC clients are entitled to one type of CCTV only within five year frequency / Note 22 supprimée : Les clients D'ACC ont droit à un seul type de CCTV au cours de la période de cinq ans

New Benefit Codes – Effective May 24, 2013
Nouveaux codes d'avantages – en vigueur le 24 mai 2013

Code	Description	Comments / Commentaires	
623984	Low Vision Aids – Computer Software / Aides pour malvoyants – logiciel	Pre-authorization required: A & B Clients – Treatment Authorization Centre (TAC) Prescriber: CI Canadian National Institute for the Blind O Ophthalmologist OP Optometrist *Maximum: $2,500.00* *1/5 Calendar Year*	Autorisation préalable requise : Clients A et B – Centre d'autorisation de traitement (CAT) Prescripteur : IC Institut national canadien pour les aveugles O Ophtalmologiste OP Optométriste *Maximum : 2500 $* *1/5 années civiles*
623985	Low Vision Aids/ Optical Character Recognition Aides pour malvoyants – reconnaissance de caractères opticale	Pre-authorization required: A & B Clients – Treatment Authorization Centre (TAC) Prescriber: CI Canadian National Institute for the Blind O Ophthalmologist OP Optometrist Maximum: $3,000.00 1/5 Calendar Year	Autorisation préalable requise : Clients A et B – Centre d'autorisation de traitement (CAT) Prescripteur : IC Institut national canadien pour les aveugles O Ophtalmologiste OP Optométriste Maximum : 3000 $ 1/5 années civiles

Should you have any questions or concerns, please contact **Blue Cross, toll free at 1-888-261-4033**. Si vous avez des questions, communiquez avec le Service de renseignements aux fournisseurs de votre bureau régional de la **Croix Bleue au numéro sans frais 1-888-261-4033**.

Intraocular lenses and the development of glistenings

Key points

- Health Canada received 69 reports of glistenings suspected of being associated with intraocular lenses (IOLs).
- In 67 cases, the development of glistenings was associated with visual impairment.
- Health care professionals are encouraged to report to Health Canada any adverse incidents suspected of being associated with IOLs and the development of glistenings.

An intraocular lens (IOL) is an artificial lens implanted in the eye to replace a cloudy crystalline lens in cataract patients.[1] It can also be used to correct different types of eye conditions such as myopia.[2] These class III medical devices (IV being the highest risk class) can be made of several types of material such as poly(methyl methacrylate) (PMMA), silicone and hydrophobic or hydrophilic acrylic.[1,3] Different adverse incidents have been associated with IOLs including the development of glistenings.[3] Glistenings are fluid-filled microvacuoles that form when the IOL is in an aqueous environment.[4] They can range from 1 to 20 µm in size. Glistenings are usually distributed throughout the thickness of the IOL and are visible by slitlamp due to the difference in refractive indices between the fluid and the IOL material. Light is refracted and scattered at the fluid-IOL material interface, leading to a sparkling or glistening-like appearance.

As of Mar. 19, 2013, Health Canada received 69 reports of glistenings suspected of being associated with IOLs. In 67 cases, the development of glistenings was reported to have affected the quality or amount of vision. In one case, a patient had a lens replaced due to decreased vision associated with the development of glistenings.

The incidence of glistenings in IOLs varies in the literature with results ranging from a relatively low incidence of glistenings to an incidence of 100%.[5] The development of glistenings has been observed with different IOL materials.[4] The current available literature often describes this phenomenon in association with hydrophobic acrylic IOLs. In a study comparing the degree of glistenings in three IOLs made of different materials (PMMA, silicone and hydrophobic acrylic), it was found that at approximately 12 years post-implantation there was a significantly higher degree of glistenings in patients with hydrophobic acrylic lenses compared to the two other lenses.[6]

Several factors that may influence the development of glistenings in IOLs have been reported in the literature. These factors include, but are not limited to, the type of IOL material, manufacturing techniques, IOL packaging and changes in temperature.[6] Further investigation is required in order to confirm the root cause of the development of glistenings and factors influencing this phenomenon.

There is no clear consensus whether the development of glistenings in IOLs can impact visual function. Some studies found that some degree of visual impairment was associated with the development of glistenings. The impairment included decreased contrast sensitivity and decreased visual acuity.[7-10] Other studies did not observe any impact of glistenings on vision.[11-13] These discrepancies may be attributed to the numerous differences in study designs and methods.

Health care professionals are encouraged to report to Health Canada any adverse incidents suspected of being associated with IOLs and the development of glistenings (www.hc-sc.gc.ca/dhp-mps/medeff/report-declaration/index-eng.php). Information including patient symptoms, clinical test results including visual acuity and contrast sensitivity, type of IOL and concomitant visual impairment is important to include when reporting adverse incidents.

– Mélanie Bousquet, PhD, Health Canada

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Source: *Bousquet M. Intraocular lenses and the development of glistenings. Canadian Adverse Reaction Newsletter 2013;23(2):1-2.*

Lentilles intraoculaires et la formation de microvacuoles

Points clés

- Santé Canada a reçu 69 déclarations de microvacuoles (glistenings) soupçonnées d'être associées à des lentilles intraoculaires (LIO).
- Dans 67 cas, la formation de microvacuoles a été associée à une déficience visuelle.
- Les professionnels de la santé sont encouragés à déclarer à Santé Canada tout effet indésirable soupçonné d'être associé aux LIO et à la formation de microvacuoles.

Une lentille intraoculaire (LIO) est une lentille artificielle implantée dans l'œil pour remplacer le cristallin opacifié chez les patients présentant une cataracte[1]. Elle peut également être utilisée pour corriger divers troubles de la vision, notamment la myopie[2]. Ces instruments médicaux de classe III (IV étant la classe présentant le risque le plus élevé) peuvent être constitués de plusieurs types de matériaux, dont le poly(méthacrylate de méthyle) (PMMA), le silicone ou l'acrylique hydrophobe ou hydrophile[1-3]. Divers incidents indésirables ont été associés aux LIO incluant la formation de microvacuoles (*glistenings*). Les microvacuoles sont remplies de liquide et se forment lorsque la LIO est exposée à un milieu aqueux[3,4]. Leur taille peut varier entre 1 et 20 µm. Les microvacuoles sont généralement réparties dans l'ensemble de l'épaisseur de la LIO et sont visibles avec une lampe à fente en raison de la différence entre l'indice de réfraction du liquide et celui du matériau de la LIO. La lumière est réfractée et diffusée à l'interface du liquide et du matériau de la LIO, menant à une apparence brillante ou scintillante.

Au 19 mars 2013, Santé Canada a reçu 69 déclarations de microvacuoles (*glistenings*) soupçonnées d'être associées aux LIO. Dans 67 cas, il a été signalé que la formation de microvacuoles a affecté la qualité ou l'acuité de la vision. Dans un cas, la lentille a été remplacée chez un patient en raison d'une diminution de la vision associée à la formation de microvacuoles.

L'incidence des microvacuoles dans les LIO varie dans la littérature avec des résultats allant d'une incidence relativement faible à une incidence de 100 %[5]. La formation de microvacuoles a été observée avec différents matériaux de LIO[4]. La documentation scientifique actuellement disponible décrit souvent ce phénomène en association avec les LIO en acrylique hydrophobe. Dans une étude comparant le degré de microvacuoles dans 3 LIO de différents matériaux (PMMA, silicone et acrylique hydrophobe), il a été constaté que, environ 12 ans après l'implantation, le degré de microvacuoles était significativement plus important chez les patients avec des lentilles en acrylique hydrophobe qu'avec les 2 autres types de lentilles[6].

Plusieurs facteurs qui peuvent influencer la formation de microvacuoles dans les LIO ont été décrits dans la littérature. Ces facteurs incluent, mais ne se limitent pas au type de matériau constituant la LIO, aux techniques de fabrication, à l'emballage des LIO et aux variations de température[6]. Une analyse plus approfondie est nécessaire afin de confirmer la cause principale de la formation des microvacuoles et les facteurs influençant ce phénomène.

Il n'y a pas de consensus clair quant à l'impact de la formation de microvacuoles dans les LIO sur la fonction visuelle. Certaines études ont démontré qu'un certain degré de déficience visuelle était associé à la formation de microvacuoles. La déficience visuelle comprenait une baisse de la sensibilité aux contrastes et une baisse de l'acuité visuelle[7-10]. D'autres études n'ont noté aucun impact des microvacuoles sur la vision[11-13]. Ces divergences peuvent être attribuées aux nombreuses différences de conception et de méthodologie entre les études.

Les professionnels de la santé sont encouragés à déclarer à Santé Canada tout effet indésirable soupçonné d'être associé aux LIO et à la formation de microvacuoles (www.hc-sc.gc.ca/dhp-mps/medeff/report-declaration/index-fra.php). Des renseignements tels que les symptômes du patient, les résultats des examens cliniques incluant l'acuité visuelle et la sensibilité aux contrastes, le type de LIO et les déficiences visuelles concomitantes sont importants à inclure lors de la déclaration d'effets indésirables.

– Mélanie Bousquet, PhD, Santé Canada

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Source : *Bousquet M., Lentilles intraoculaires et la formation de microvacuoles, Bulletin canadien des effets indésirables, 2013;23(2):1-2.*

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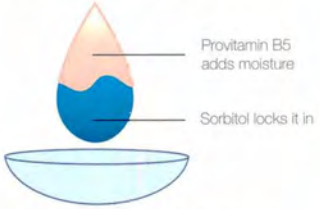

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The New Optometrists in Mzuzu, Malawi
Les nouveaux optométristes dans Mzuzu, Malawi

PHOTOGRAPHY: PAUL GENEAU & JOHN BARKELY

Top photo: The Mzuzu University School of Optometry Academic Vision Centre was undergoing finishing touches when the keys to the building were handed over in October 2012.

Left to right: Dr. Allan Jones speaking with Kesi Naidoo, Manager of Human Resource Development for Africa for the Brien Holden Vision Institute; Michael Masika, the Malawi National Eyecare Coordinator; and Dr. Luigi Bilotto, Director of Global Human Resource Development, also for the Brien Holden Vision Institute.

World Sight Day 2012 marked the official handover of a new optometry training centre to the Malawi School of Optometry, made possible through the generosity of Canadian optometrist, Dr. Allan Jones of Calgary, Alta., and the eye care charity, Canadian Vision Care. In the lead up to the ceremony, Dr. Jones spent some time at a mobile eye clinic with the students and faculty of the School of Optometry. Dr. Paul Geneau of Nanaimo, B.C., the President Elect of the Canadian Association of Optometrists, also participated. These optometrists provided excellent mentoring for the Malawi students.

Speaking about the generosity of Dr. Jones in funding the building of the training centre, Dr. Paul Geneau commented, "Allan's persuasive, and he's inspiring with the work he has done. He's an extremely generous individual, as you can see by the work he's done to provide this school."

With the scratching of tables across cement floors, the darkening of windows and the unpacking of instruments, a primary school classroom was transformed into a field optometry clinic within minutes. On this particular day, four Canadian optometrists, including Dr. Jones and Dr. Geneau, as well as Dr. John Barkley and Dr. Ryan Koepfer, joined 28 optometry students and their teachers from Mzuzu University, at a mobile clinic located 25 kilometres south of Mzuzu, Malawi.

The students and teachers are from the Malawi School of Optometry, where the Brien Holden Vision Institute and Mzuzu University, with funding support from Optometry Giving Sight, have developed and implemented curricula to enable the training of degree-qualified optometrists via a four-year program.

Lens kits, ophthalmoscopes, retinoscopes and other instruments were carefully laid out on the tables. For some of these optometry students, this was to be the first time they would use instruments

Sanchia moved to Malawi from South Africa three years ago, expecting to stay for six months. "I fell in love with the place and ended up staying," she said. "This is a beautiful country and there is so much that can be done here. There is such a great need for eye care services and research."

on actual patients. Almost 300 school children had lined up for eye examinations outside; likewise, this was to be the first time most of them had ever had their eyes examined. From there, an assembly line process ensued, from documenting each child, through the examination and treatment, if it was needed. The morning was set-aside for the schoolchildren; the afternoon for parents and teachers.

"These are kids that still have the same problems here as they have in the developed world, except these kids haven't been treated," said Sanchia Jogessar, who manages the Optometry Department of Mzuzu University.

Sanchia moved to Malawi from South Africa three years ago, expecting to stay for six months. "I fell in love with the place and ended up staying," she said. "This is a beautiful country and there is so much that can be done here. There is such a great need for eye care services and research."

Her entire faculty was present at the mobile clinic; three instructors and 28 students. According to Sanchia, these students are the future of optometry in Malawi. "What was happening in the past was people [foreign optometrists] came in and would do a general screening like this, but if there was a need for follow-up there was no one here."

Pointing to the students at work in the clinic she said, "Now with these guys being here it creates someone for people to come back to, and not have to rely on external aid all the time."

One of those students is Stella. In her second year of optometry studies, Stella spent the morning conducting visual acuity tests. "It helps us to learn the relevance of what we are learning in class, as in the theory," she said. "So it helps us to really even know what it means because some of the theory you can't understand it until you get into clinic and you practice it."

Top photo: Malawian optometry students conducting an eye examination clinic in a local school.

Dr. John Barkely, and the other visiting Canadian optometrists, participated in the free clinics and assisted in the training of the optometry students.

The first five graduates of the Optometry School were thrilled to receive gifts of eye examination kits, detail of contents shown below. Dr. Paul Geneau, (in the background), brought them each a custom sewn canvas satchel to carry their kits in.

Top right: Cathy Geneau put her sewing skills to work making the students' satchels, which were designed to protect the examination kits from damage.

Stella is Malawian. When she graduates in two years she will be one of only thirty Malawian optometrists in the country. The first five students graduated from Mzuzu University's Optometry program in 2012, and are presently doing internships. They are to be the country's first ever optometrists. When Stella graduates she will be among the first three Malawian women qualified to practice.

Training native Malawian optometrists like Stella is crucial to the country's development, according to Dr. Luigi Bilotto, the Brien Holden Vision Institute's Director of Global Human Resource Development.

"In order to create ongoing services, it's fundamental that we empower local people to do what they need to do to help themselves," he said." Training local Malawians is part of a fundamental philosophy so that they can become empowered to provide the services and eyecare that is needed for their own people."

Training Malawian optometrists is not an easy task in a country with limited resources. Malawi is one of the poorest countries on Earth, and infrastructure problems abound. University classrooms are often overcrowded; students have only limited access to one eye-testing clinic at a local hospital.

That's why World Sight Day 2012 was especially important to the optometry school at Mzuzu University. The keys to a new optometry training centre were handed over to the school at a ceremony on the hospital grounds on World Sight Day. Though the facility was not yet stocked with equipment or furniture, the excitement was palpable as students and teachers toured the facility.

Money to build the training facility came from Optometry Giving Sight through donations from Canadian optometrist, Dr. Alan Jones and the eye care charity, Canadian Vision Care. For almost thirty years Dr. Jones has travelled in the developing world conducting optometry volunteer outreach clinics.

Using the proverbial analogy of feeding someone for either a day or a lifetime, Dr. Jones described those volunteer outreach clinics as examples of "giving people fish". In comparison, he believes that funding the construction of the eyesight training facility, and facilitating the training of local optometrists will help to "teach people to fish".

Having seen the new training facility and meeting some of the students, Dr. Jones said he had been swept up in their enthusiasm.

"When people ask if it's a good thing to donate to Optometry Giving Sight, I'd have to say I can't think of anything better to donate to."

Clive Miller, Global CEO of Optometry Giving Sight praised the generosity of Dr Jones.

"His passion and commitment to support the training of local Optometrists in Malawi has been remarkable and we have been delighted to work with him to facilitate the construction of the Academic Vision Centre," he said. "His support is greatly appreciated by Optometry Giving Sight, the Brien Holden Vision Institute, Mzuzu University – and of course the students."

To see a video of the new Optometry Training Centre at the Malawi School of Optometry go to : **http://www.youtube.com/watch?v=X9qLH166gOQ&feature=youtu.be**

The Mzuzu University School of Optometry Academic Vision Centre, completed.

La Journée mondiale de la vue 2012 a marqué le transfert officiel d'un nouveau centre de formation à l'école d'optométrie de Malawi, grâce à la générosité de l'optométriste canadien Dr Allan Jones et l'organisme caritatif Canadian Vision Care. Avant la cérémonie, le Dr Jones a séjourné à une clinique mobile de soins oculaires avec des étudiants et la faculté de l'école d'optométrie. Dr Paul Geneau, de Nanaimo en Colombie-Britannique, président élu de l'Association canadienne des optométristes, était également de la partie. Ces optométristes ont procuré un excellent encadrement aux étudiants malawiens.

Mentionnant la généreuse contribution du Dr Jones au financement de l'édifice abritant le centre de formation, le Dr Paul Geneau a fait les commentaires suivants : « Allan est persuasif et le travail qu'il a accompli est inspirant. Il est extrêmement généreux, comme en témoigne le travail effectué pour cette école. »

Les tables crissent sur le plancher en béton, les fenêtres sont couvertes pour faire de la noirceur à l'intérieur et les instruments sont déballés, transformant en quelques minutes une classe d'école primaire en clinique d'optométrie temporaire. Ce jour-là, quatre optométristes canadiens, dont les Drs Jones et Geneau ainsi que le Dr. John Barkley et le Dr. Ryan Koepfer, accompagnent 28 étudiants en optométrie et leurs professeurs de l'université Mzuzu à une clinique mobile située à 25 kilomètres au sud de Mzuzu, au Malawi.

Ces étudiants et professeurs viennent de l'école d'optométrie du Malawi, où l'institut de la vision Brien Holden et l'université Mzuzu, grâce aux fonds accordés par Optometry Giving Sight, ont mis sur pied un programme de quatre ans assurant la formation d'optométristes qualifiés diplômés.

Trousses de lentilles, ophthalmoscopes, rétinoscopes et autres instruments sont déposés avec soin sur les tables. Certains de ces étudiants en optométrie utilisent ces instruments pour la première fois sur de vrais patients. Près de 300 écoliers attendent en ligne à l'extérieur pour se faire examiner la vue; pour eux aussi, il s'agit d'une première. De là, une chaîne de montage est mise en place : documentation sur chaque enfant, suivie d'un examen et, au besoin, du traitement nécessaire. La matinée est consacrée aux élèves, l'après-midi, aux parents et aux enseignants.

« Ces enfants ont les mêmes problèmes que ceux qui vivent dans les pays développés, sauf qu'ils n'ont pas été traités », fait remarquer Sanchia Jogessar, qui gère le département d'optométrie de l'université Mzuzu.

Sanchia est déménagée de l'Afrique du Sud au Malawi il y a trois ans, croyant y rester seulement six mois. « Je suis tombée amoureuse de cet endroit et j'y suis restée, raconte-t-elle. C'est un beau pays, et il y a tant de choses qu'on peut faire. Le besoin en services de soins de la vue et en recherche est tellement grand. »

Toute sa faculté est présente à la clinique mobile : trois instructeurs et 28 étudiants. D'après Sanchia, ces étudiants représentent l'avenir de l'optométrie au Malawi. « Par le passé, des optométristes étrangers venaient

et faisaient du dépistage général comme c'est le cas ici, mais il n'y avait personne pour assurer le suivi. »

Montrant les étudiants au travail à la clinique, elle ajoute : « Maintenant, il y a quelqu'un ici quand les résidents ont besoin de revenir; il n'est plus nécessaire de toujours compter sur l'aide extérieure. »

Stella fait partie de ces étudiants. Elle en est à sa deuxième année, et a passé la matinée à faire des tests d'acuité visuelle. « Cela nous permet de mettre la théorie en pratique, explique-t-elle, de vraiment comprendre ce qui nous est enseigné, car certaines notions théoriques sont difficiles à assimiler tant qu'on n'est pas en clinique. »

Stella est originaire du Malawi. Lorsqu'elle sera diplômée dans deux ans, elle fera partie des 30 optométristes malawiens au pays. Les cinq premiers étudiants ont obtenu leur diplôme de l'université Mzuzu en 2012 et sont actuellement en stage. Ils seront les tout premiers optométristes au pays. Une fois diplômée, Stella sera une des trois premières femmes malawiennes qualifiées pour exercer l'optométrie.

La formation d'optométristes malawiens comme Stella est essentiel au développement du pays, selon le Dr Luigi Bilotto, directeur du perfectionnement mondial des ressources humaines à l'institut de la vision Brien Holden.

« Pour assurer des services continus, il faut absolument permettre à la population locale de se prendre en main, souligne-t-il. La formation de Malawiens locaux s'inscrit dans une philosophie fondamentale selon laquelle la population est en mesure de fournir les services et soins de la vue dont les résidents ont besoin. »

La formation d'optométristes locaux n'est pas chose facile dans un pays aux ressources limitées. Le Malawi est un des pays les plus pauvres sur Terre, et les problèmes d'infrastructure y abondent. Les classes universitaires comptent souvent trop d'étudiants, et ces derniers n'ont qu'un accès limité à la seule clinique oculaire de l'hôpital local.

« C'est pourquoi la Journée mondiale de la vue 2012 revêt une telle importance à l'école d'optométrie de l'université Mzuzu. Les clés d'un nouveau centre de formation sont remises à l'école lors d'une cérémonie tenue à l'hôpital. Même sans équipement et sans meuble dans les locaux, l'enthousiasme est palpable parmi les étudiants et les professeurs qui visitent les lieux.

L'argent requis pour construire le centre de formation a été accordé par Optometry Giving Sight grâce aux dons de l'optométriste canadien Dr Allan Jones et l'organisme caritatif Canadian Vision Care. Depuis presque 30 ans, le Dr Jones voyage dans le monde en développement et organise des cliniques itinérantes.

Le Dr Jones a fait une analogie entre les cliniques itinérantes bénévoles et le proverbe « quand un homme a faim, mieux vaut lui apprendre à pêcher que de lui donner un poisson ». En finançant la construction du centre et en facilitant la formation d'optométristes locaux, il croit qu'on apprend aux gens à pêcher.

Après avoir vu le nouveau centre de formation et rencontré un certain nombre d'étudiants, le Dr Jones avoue s'être senti emporté par leur enthousiasme.

« Quand les gens me demandent si ça vaut la peine de donner à Optometry Giving Sight, je dois dire que je ne peux pas penser à un meilleur récipiendaire pour leurs dons. »

Clive Miller, PDG mondial d'Optometry Giving Sight, a fait l'éloge de la générosité du Dr Jones.

« Sa passion et son engagement pour le soutien de la formation d'optométristes locaux au Malawi sont remarquables, et ce fut un plaisir de travailler avec lui pour faciliter la construction de l'Academic Vision Centre, dit-il. Son appui est grandement apprécié par Optometry Giving Sight, l'institut de la vision Brien Holden, l'université Mzuzu et, bien entendu, les étudiants. »

SILVER 2013 PARTNER

EYE HEALTH COUNCIL OF CANADA

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Innovative BluTech Lenses help prevent Age-Related Macular Degeneration (AMD)

Centennial Optical has introduced BluTech Lenses to Canada, a new lens technology developed by Eye Solutions, Inc. which filters harmful blue and UV light. Age-Related Macular Degeneration (AMD) is a common degenerative eye condition that has no known cure and is the leading cause of blindness in older adults. BluTech Lenses technology was developed due to the growing evidence that constant exposure to harmful blue and UV wavelength light increases the risk of AMD. Studies have also shown that exposure to blue light can disrupt sleep patterns by supressing melatonin.

"We are exposed to more high-energy blue light both indoors and out than ever before," says David Israel, Chief Operating Officer of Eye Solutions, Inc. BluTech Lenses filter high-energy blue and ultra-violet light using ocular lens pigment derived from the auto-oxidation of 3-Hydroxykynurenine (3-OHKyn). The ocular lens pigment is then combined with melanin and isolated in a durable material. This infusion of pigment in an optical lens provides the same protection, contrast enhancement, and colour perception to the eye as the natural yellow-brown colouration of the human crystalline lens.

A unique characteristic of BluTech Lenses is that they maintain natural colour vision and improve contrast sensitivity, making them ideal for everyday wear. The lenses are available in both Indoor and Outdoor versions. BluTech indoor lenses have a slight tint and protect the eyes from dangerous blue light given off by fluorescent and CFC light bulbs, computer screens, flat panel TVs, and hand-held devices such as tablets and smart phones. The outdoor lenses are polarized with 80% light absorption to eliminate glare, and they protect against blue light and UV radiation emitted by the sun. BluTech Lenses are fully compatible with AR coatings.

For more information, please contact your Centennial Optical lens representative

or

Rick Leroux,
Phone: 416-739-5458 /
1-800-561-0681
rleroux@centennialoptical.com

Visit: **blutechlenses.com**

Congress Registration

CAO members are reminded to register online for the CAO Biennial Congress. For a full updated guide to the congress and to register, visit: **opto.ca/events/cao-2013-congress/**

Congress questions? Please contact the AAO or CAO
Stacey Dominiuk P: (780) 451-6824, ext 233 Email: sdominiuk@optometrists.ab.ca
or Catherine Heinmiller, P: (613) 235-7924, ext 210; T-F: (888) 263-4676 ext 210
Email: catherine@opto.ca

We hope to see you in Edmonton in July!
Dr. Larry Gies and Dr. Femida Visnani, 2013 CAO Congress Co-Chairs

CAO 2013 Member Survey

CAO would like to thank those members who participated in our recent member survey. Results will be used to develop our strategic plan for 2013–2017. More information to follow.

L'ACO 2013 Sondage des membres

L'ACO aimerait remercier ceux et celles qui ont participé à notre récent sondage. Les résultats seront utilisés pour notre plan stratégique de 2013-2017. D'autres informations suivront.

INTRODUCING

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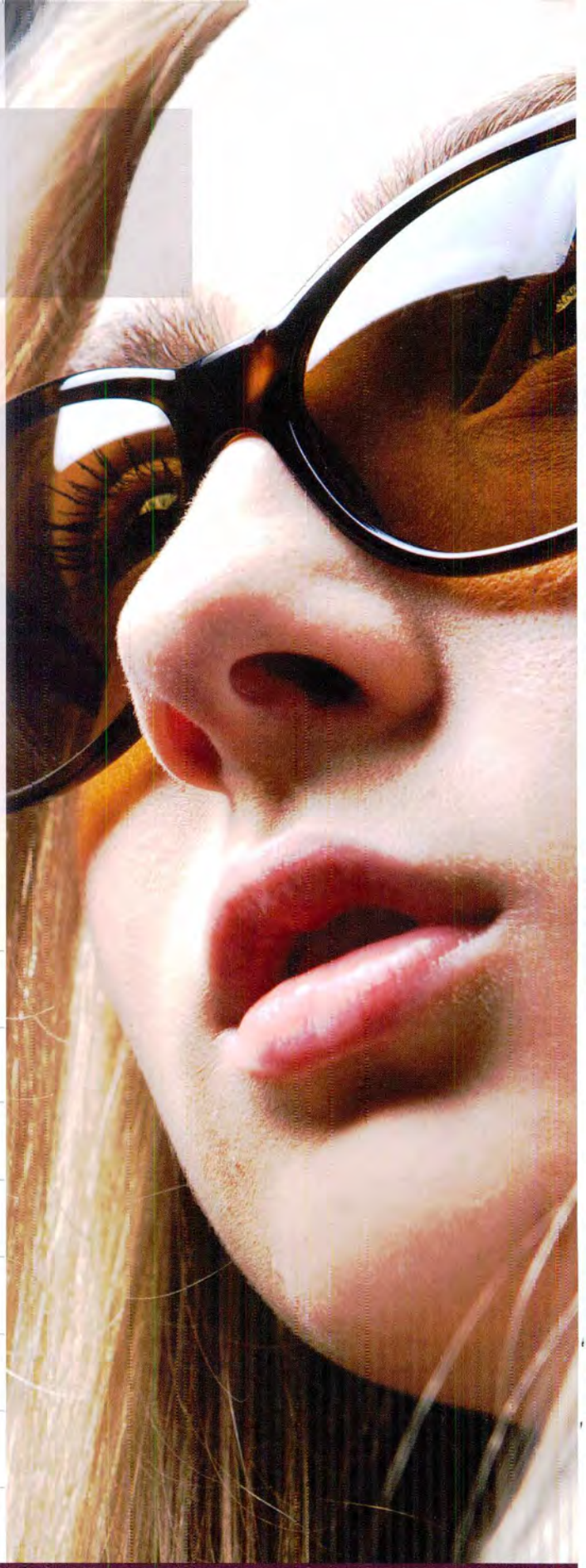

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NIH study provides clarity on supplements for protection against blinding eye disease

Adding omega-3 fatty acids did not improve a combination of nutritional supplements commonly recommended for treating age-related macular degeneration (AMD), a major cause of vision loss among older individuals, according to a study from the National Institutes of Health (NIH). The plant-derived antioxidants lutein and zeaxanthin also had no overall effect on AMD when added to the combination; however, they were safer than the related antioxidant beta-carotene, according to the study published online in the *Journal of the American Medical Association*.

"Millions of older Americans take nutritional supplements to protect their sight without clear guidance regarding benefit and risk," said NEI director Paul A. Sieving, M.D., Ph.D. "This study clarifies the role of supplements in helping prevent advanced AMD, an incurable, common, and devastating disease that robs older people of their sight and independence."

The Age-Related Eye Disease Study (AREDS), which was led by NIH's National Eye Institute and concluded in 2001, established that daily high doses of vitamins C and E, beta-carotene, and the minerals zinc and copper—called the AREDS formulation—can help slow the progression of advanced AMD. The American Academy of Ophthalmology now recommends use of the AREDS formulation to reduce the risk of advanced AMD. However, beta-carotene use has been linked to a heightened risk of lung cancer in smokers. And there have been concerns that the high zinc dose in AREDS could cause minor side effects, such as stomach upset, in some people.

In 2006 the NEI launched AREDS2, a five-year study designed to test whether the original AREDS formulation could be improved by adding omega-3 fatty acids; adding lutein and zeaxanthin; removing beta-carotene; or reducing zinc. The study also examined how different combinations of the supplements performed. Omega-3 fatty acids are produced by plants, including algae, and are present in oily fish such as salmon. Lutein and zeaxanthin are carotenoids, a class of plant-derived vitamins that includes beta-carotene; both are present in leafy green vegetables and, when consumed, they accumulate in the retina. Prior studies had suggested that diets high in lutein, zeaxanthin, and omega-3 fatty acids protect vision. Before the AREDS2 study finished, manufacturers began marketing supplements based on the study design.

In AREDS2, participants took one of four AREDS formulations daily for five years. The original AREDS included 500 milligrams vitamin C, 400 international units of vitamin E, 15 milligrams beta-carotene, 80 milligrams zinc, and two milligrams copper. Other groups took AREDS with no beta-carotene, AREDS with low zinc (25 milligrams), or AREDS with no beta-carotene and low zinc. Participants in each AREDS group also took one of four additional supplements or combinations: these included lutein/zeaxanthin (10 milligrams/2 milligrams), omega-3 fatty acids (1,000 milligrams), lutein/zeaxanthin and omega-3 fatty acids, or placebo. Progression to advanced AMD was established by examination of retina photographs or treatment for advanced AMD.

AMD breaks down cells in the layer of tissue called the retina in the back of the eye that provide sharp central vision, which is necessary for tasks such as reading, driving, and recognizing faces. Advanced AMD can lead to significant vision loss and, in the United States, is the leading cause of blindness. About 2 million Americans have advanced AMD; another 8 million are at risk. (*Editor's note: AMD is the leading cause of vision loss in Canada. There are more than one million Canadians living with AMD.*) In the first AREDS trial, participants with AMD who took the AREDS formulation were 25 percent less likely to progress to advanced AMD over the five-year study period, compared with participants who took a placebo. In AREDS2, there was no overall additional benefit from adding omega-3 fatty acids or a 5-to-1 mixture of lutein and zeaxanthin to the formulation. However, the investigators did find some benefits when they analyzed two subgroups of participants: those not given beta-carotene, and those who had very little lutein and zeaxanthin in their diets.

"When we looked at just those participants in the study who took an AREDS formulation with lutein and zeaxanthin but no beta-carotene, their risk of developing advanced AMD over the five years of the study was reduced by about 18 percent, compared with participants who took an AREDS formulation with beta-carotene but no lutein or zeaxanthin," said Emily Chew, M.D., deputy director of the NEI Division of Epidemiology and Clinical

The National Eye Institute, part of the National Institutes of Health, leads the U.S. government's research on the visual system and eye diseases. NEI supports basic and clinical science programs that result in the development of sight-saving treatments. For more information, visit http://www.nei.nih.gov.

About the National Institutes of Health (NIH): NIH, the United States' medical research agency, includes 27 Institutes and Centers and is a component of the U.S. Department of Health and Human Services. NIH is the primary federal agency conducting and supporting basic, clinical, and translational medical research, and is investigating the causes, treatments, and cures for both common and rare diseases. For more information about NIH and its programs, visit www.nih.gov.

Applications and the NEI deputy clinical director. "Further analysis showed that participants with low dietary intake of lutein and zeaxanthin at the start of the study, but who took an AREDS formulation with lutein and zeaxanthin during the study, were about 25 percent less likely to develop advanced AMD compared with participants with similar dietary intake who did not take lutein and zeaxanthin."

Because carotenoids can compete with each other for absorption in the body, beta-carotene may have masked the effect of the lutein and zeaxanthin in the overall analysis, Chew said. Indeed, participants who took all three nutrients had lower levels of lutein and zeaxanthin in their blood compared to participants who took lutein and zeaxanthin without beta-carotene

Removing beta-carotene from the AREDS formulation did not curb the formulation's protective effect against developing advanced AMD, an important finding because several studies have linked taking high doses of beta-carotene with a higher risk of lung cancer in smokers. Although smokers were not given a formulation with beta-carotene in AREDS2, the study showed an association between beta-carotene and risk of lung cancer among former smokers. About half of AREDS2 participants were former smokers. "Removing beta-carotene simplifies things," said Wai T. Wong, M.D., Ph.D., chief of the NEI Neuron-Glia Interactions in Retinal Disease Unit and a co-author of the report. "We have identified a formulation that should be good for everyone regardless of smoking status," he said. Adding omega-3 fatty acids or lowering zinc to the AREDS formulation also had no effect on AMD progression.

More than 4,000 people, ages 50 to 85 years, who were at risk for advanced AMD participated in AREDS2 at 82 clinical sites across the United States. Eye care professionals assess risk of developing advanced AMD in part by looking for drusen in the retina. The appearance of small drusen is a normal part of aging, but the presence of larger drusen indicates AMD and a risk of associated vision loss. Over time, the retina begins to break down in areas where large drusen are present resulting in geographic atrophy. AMD can also spur the growth of new blood vessels beneath the retina, which can leak blood and fluid, resulting in sudden vision loss. These two forms of AMD are referred to as dry AMD and wet AMD respectively.

In a separate study, published online in *JAMA Ophthalmology*, the AREDS2 Research Group evaluated the effect of the various AREDS formulas on cataract, a common condition caused by clouding of the eye's lens. Globally, cataract is the most common cause of blindness and is a major health problem in areas where cataract surgery is unavailable or unaffordable.

As reported in 2001, the original AREDS formulation does not protect against cataract. In AREDS2, none of the modified formulations helped reduce the risk of progression to cataract surgery, although a subgroup of participants with low dietary lutein and zeaxanthin gained some protection. "While a healthy diet promotes good eye health and general well-being, based on overall AREDS2 data, regular high doses of antioxidant supplements do not prevent cataract," Chew said.

Many factors contribute to the development of AMD and cataract, including genetics, diet, and smoking. Scientists are unsure how supplements in the AREDS formulation exert their protective effects. However, an April 2013 report in the journal Ophthalmology by the AREDS Research Group shows the beneficial effects of taking the AREDS vitamins are long-lasting. The report describes a follow-up study of AREDS participants. Those who took the AREDS formulation during the initial five-year trial were 25 to 30 percent less likely to develop advanced AMD—mostly due to a reduction in the number of neovascular, or wet, AMD cases—over the next five years, compared with participants who took placebo during AREDS. Seventy percent of all participants were taking the original AREDS formula by the end of the follow-up period.

"Long-term use of AREDS supplements appears safe and protective against advanced AMD," said Chew. "While zinc is an important component of the AREDS formulation, based on evidence from AREDS2 it is unclear how much zinc is necessary. Omega-3 fatty acids and beta-carotene clearly do not reduce the risk of progression to advanced AMD; however, adding lutein and zeaxanthin in place of beta-carotene may further improve the formulation."

The AREDS2 study results provide physicians and patients with new information about preventing vision loss from AMD. People over 60 years old should get a dilated eye exam at least once a year and should discuss with their eye care professional whether taking AREDS supplements is appropriate.

For more information about AREDS2, visit www.nei.nih.gov/areds2.

The research described in this news release was supported by the NEI Intramural Research Program and contracts N01-EY-5-0007, N01-EY-0-2127, HHS-N-260-2005-00007-C. Additional research funds were provided by the National Institute of Neurological Disorders and Stroke; the National Institute on Aging; the National Heart, Lung, and Blood Institute; the National Center for Complementary and Alternative Medicine; and the NIH Office of Dietary Supplements.

The AREDS follow-up is registered in www.ClinicalTrials.gov as NCT00594672. AREDS2 is registered as NCT00345176.

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Courtesy: National Eye Institute, National Institutes of Health (NEI/NIH)."

Increasing gross profit – & considerations surrounding buying groups

BY GERRY LEINWEBER, OD, BSC

Optometrists love practice statistics. Vital to our success, are four practice statistics that we constantly need to monitor: gross profit; net profit; team engagement; and patient satisfaction.

In this article I'll focus on gross profit with some tips to improve it, and weigh in on some of the history and concerns surrounding buying group membership. Three key reasons to measure gross profit:

- *enhance team performance*
- *evalutate OD performance*
- *understand your marginal profit*

Your team has the most direct control over the gross profit statistic. It is defined as the net sales minus the cost of goods sold. It is essential to hold your team accountable for gross profit as they have a real impact on which products they present to the patients. When you track this number, you are also letting the team measure their performance. So, if you want a bonus plan for your team, start with a measurement of your gross profit and base your targets on this vital statistic.

If you have associates, basing their income on gross profit is much more accurate that paying them a proportion of gross sales. With slim margins in disposable contact lenses, I have seen offices that actually lose money on contact lens sales after they've paid an associate and deducted chair costs! When you pay an OD based on gross profit such structural problems can be avoided.

All practices must understand that when you sell an item, and all your costs have been covered, then your marginal profit on that last item is the full gross profit.

Gross Profit = Gross Sales less Cost of Goods. Sounds simple, but for most OD's measuring gross profit is a real challenge for a few practical reasons. The first is your practice management software may not record gross profit on each sale or not record it accurately. This is a technical issue beyond the scope of this article. However, I recommend discussing it with your software provider. Accountants know key business numbers. They are often astounded that software used by our industry is so lacking. The second is due to the near impossibility of knowing your real cost of goods. Cost of goods sold (COGS) is the invoice cost of all goods less the discounts. Due to large year-end rebates from companies earned on specific items, or if you belong to a buying group, an overall bonus for all purchases combined makes knowing the specific discount virtually impossible. For offices that have in-house edging, to determine your lens cost of goods, you must add all costs of your edging or tracing operation into your COGS (including wages, materials and rent related to the edging), because without an accurate COGS, the gross profit figure can be woefully misleading.

There are only two strategies to increase your gross profit. First – improve your gross sales. You must market and build sales through great service and by providing value. You should have a yearly marketing plan based on your local demographic reality, practice positioning, plus local and online competitors. Second – reduce your cost of goods. Optometrists must keep their cost of goods low to remain competitive. One approach is to join a buying group, another is to work in corporate environments while other OD's do their own negotiations with suppliers.

As with any business decision, choosing to belong to a buying group is complex and because of the number of groups in existence, there are a range of options and hence, opinions. Most groups dislike the term "buying group", yet at their core all provide that function to members or shareholders. Each group has a different focus and a different structure with different business strategies. There are many benefits with any group, and also challenges. There are also some very strong opinions in Canada as the groups compete for membership and often a practice moves from one group to another. I know of practices that have belonged to four different groups at various times.

Disclaimer: *I was one of the founders of Canada's Doctors of Optometry (CDO) in 1985. CDO evolved and grew into Infinity Vision Alliance (IVA), went nationwide as Doctors of Optometry (DEN), and now is called Eye Recommend (ER). Over the years I held virtually every office in CDO and DEN. I am not on the board of any group, but know the leaders of OSI, Iris, FYI and Vision Source.*

For example, the oldest group, OSI, provides a wide range of resources including computer software, financial services and has their own safety eyewear business. OSI has evolved into a legal structure now as a corporation with shareholders. As any group gets larger it is virtually impossible to be all things to all people and over the years, a number of smaller groups, primarily based in Quebec, were also formed for the Quebec market. At the same time in the '80's, two groups from Alberta and BC merged with a co-op model. This group now called ER focused on education and training. The Optical Group began in Ontario and has gone through changes in ownership. Out of the USA, Vision Source has entered the Canadian market. FYI is another model and it competes with corporate models owned by multinationals. Most groups claim they have the lowest cost of goods or provide the best value. The groups have a positive impact on business and yet many OD's still remain outside of any group.

Why do a significant number of Canadian practices still not belong to any buying group? I recently spoke to a number of these OD's who gave me one or more reasons; they choose complete independence, they can buy at lower prices than groups obtain, they prefer freedom to choose suppliers without penalty, they prefer the freedom to sell their practice as they wish, and the ability to brand themselves as they see fit, not as the group decides. But one comment from a very intelligent OD hit me between the eyes. When I asked him why his practice had never joined a group, his answer was none of the above. He refused to join any group where hired executives received gifts from suppliers. "What gifts?", I asked. The OD had heard about trips paid to various events, and had personal knowledge of leaders of one group accepting a large gift, sponsored by a supplier.

The OD felt this was a conflict of interest and suggested I write a column on this topic. So I sent out questions to a large sample of Canadian buying groups including the question about accepting a gift like a pro-am entry or overseas trip (valued at thousands of dollars) and received a wide range of replies. What was a clear conflict of interest to the OD was also confirmed to be against the code developed by OSI. Other groups like ER had conflict of interest policies but expressed the opinion that such gifts were not conflicts, rather business opportunities. FYI chose not to respond, while Vision Source and IRIS chose to simply say such issues were never simple.

The ophthalmic industry is constantly evolving, and new business ideas arise to address these challenges. Business groups like OSI, IRIS, ER, Vision Source and FYI were all formed to help OD's address these challenges. Relationships between suppliers and doctors are complex. That is true, and it is also true that transparency is the only solution to any real or potential conflict of interest. In any event, every OD must work to increase their gross profit in some fashion.

Eye Health Council of Ontario Guidelines for the Care of Patients with Glaucoma

In April 2011, following years (indeed, decades) of effort by provincial and national associations, regulators, and practitioners, optometrists in Ontario saw the promulgation of Ontario Regulation 112/11, the Designated Drugs and Standards of Practice Regulation. This landmark legislation allowed optometrists to prescribe topical and oral medications for the treatment of eye disease, and obligated them to do so competently.

To that end, the Eye Health Council of Ontario (EHCO), following the successful development of the Guidelines for the Collaborative Management of Persons with Diabetes Mellitus by Eye Care Professionals (*Canadian Journal of Optometry* 2011;73(4):26-35), turned its attention to articulating similar guidelines for the management of persons with glaucoma.

These guidelines built upon the Canadian Ophthalmological Society's Evidence-based Clinical Practice Guidelines for the Management of Glaucoma in the Adult Eye (*Can J Ophthalmol* 2009;44(supp1):S1-S54) while recognizing the legislated authority for Ontario optometrists to independently manage patients with primary open-angle glaucoma. Over nearly two years of development and scrutiny by academic and practicing optometrists and ophthalmologists, the guidelines were drafted, debated, revised, rewritten, further debated, and eventually agreed upon.

With greater scope comes greater responsibility, and to that end, EHCO presents the Eye Health Council of Ontario Guidelines for the Care of Patients with Glaucoma.

Background

This document was developed in order to better define models of care for glaucoma suspects and patients with glaucoma in Ontario, given the change in the scope of optometric practice as outlined in Ontario Regulations 111/11 and 112/11, made under the Optometry Act (1994).

There is great variability in the severity and presentation of patients with glaucoma, making it difficult to articulate general guidelines for care applicable to all possible clinical presentations. The ultimate goal of the Guidelines is to increase accessibility and to improve the quality of care provided to these patients.

This Guideline referred to the Canadian Ophthalmological Society Evidence-based Clinical Practice Guidelines for the Management of Glaucoma in the Adult Eye (*Can J Ophthalmol.* 2009;44 (supp 1):S1-S54) for general principles and definitions, and the College of Optometrist of Ontario's "Standards of Practice – Glaucoma" and "The Designated Drugs and Standards of Practice Regulation". The Guideline is not intended to restrict scopes of practice or serve as a standard of medical care. Standards of medical care are specific to all the facts or circumstances in an individualized case, and can be subject to change as scientific knowledge and technology advance and as practice patterns evolve.

Principles of Interprofessional Collaboration

The Eye Health Council of Ontario endorses the Key Principles for interprofessional collaboration as outlined by the "Model of Interprofessional Collaboration in the Care of Glaucoma Patients and Glaucoma Suspects" (*Can J Ophthalmol* 2009;44(supp 1):S1-S54).

The key principles are:

- Patient-centred approach
- Timely access to appropriate eye care professional
- Ongoing commitment to high-quality standards of care
- Evidence-based approach to care
- Collegial relationships
- Effective, clear and timely communication
- Optimal utilization of professional competencies and finite resources
- Duplication of tests and services kept to a minimum

Regulations and Recommendations

Recommendations are presented in context with current optometry regulations in Ontario. These are recommendations only and need to be adapted to the individual circumstances of the clinical presentation, availability of eye care professionals, and resources.

A typical examination for a patient with glaucoma or a glaucoma suspect would include gonioscopy, intraocular pressure (IOP), central corneal thickness, threshold visual fields, and assessment and documentation of the optic nerve and nerve fibre layer. The current "standard" for measuring IOP is Goldmann applanation tonometry.

The accompanying table defines the stages of glaucoma.

STAGING OF THE GLAUCOMA SUSPECT AND PATIENTS WITH GLAUCOMA#

Suspect	1 or 2 of the following: • IOP > 21 mm Hg • suspicious disc or cup to disc (C/D) asymmetry of > 0.2 • suspicious 24-2 (or similar) VF defect
Early Glaucoma	Early glaucomatous disc features (e.g. C/D* < 0.65) and/or mild VF defect not within 10 degrees of fixation (e.g. MD better than -6 dB on HVF 24-2)
Moderate Glaucoma	Moderate glaucomatous disc features (e.g. vertical C/D* 0.7–0.85) and/or moderate VF defect not within 10 degrees of fixation (e.g. MD from -6 to -12 dB on HVF 24-2)
Advanced Glaucoma	Advanced glaucomatous disc features (e.g. C/D* > 0.9) and/or VF defect within 10 degrees of fixation** (e.g. MD worse than -12 dB on HVF 24-2)

HVF=Humphrey Visual Field Analyzer; MD=mean deviation

* Refers to vertical C/D ratio in an average size nerve. If the nerve is small, then a smaller C/D ratio may still be significant; conversely, a large nerve may have a large vertical C/D ratio and still be within normal limits.

** Also consider baseline 10-2 VF (or similar)

\# **Source:** Adapted from the Canadian Ophthalmological Society Evidence-based Clinical Practice Guidelines for the Management of Glaucoma in the Adult Eye. *Can J Ophthalmol.* 2009;44 (supp 1):S1-S54.

Glaucoma Suspects

Optometry Regulation: The Regulation does not address patients considered glaucoma suspects.

Low Risk Glaucoma Suspects

Glaucoma suspects of low risk may be managed by either an optometrist or ophthalmologist. Low risk glaucoma suspects have one of the following:

- IOP > 21 mm Hg
- suspicious disc or cup to disc (C/D) asymmetry of > 0.2
- suspicious 24-2 (or similar) VF defect
  (*Can J Ophthalmol.* 2009;44 (supp 1):S1-S54)

However the level of suspicion given these abnormal parameters is low enough that the health care professional has determined that it is unlikely the patient will develop glaucoma.

Low risk glaucoma suspects may include:

- Young adult patient with family history but no significant ocular findings
- Ocular hypertensive with pressures in the low- to mid-20s but no other significant ocular findings
- Patients with an anomalous or suspicious disc but no other significant ocular findings

After completion of the initial assessment and the establishment of baseline clinical data, the frequency of follow-up examinations will be left to the discretion of the attending eye care professional, although it is suggested that the patient should be followed at least every two years. At each follow-up visit, stability should be assessed (*i.e.* are the IOP, optic disc and visual field stable?). In cases where a change in optic disc or visual field is suspected, a confirmatory exam should be performed. If change is confirmed, then the patient should be managed as a patient with early glaucoma.

High Risk Glaucoma Suspects

Glaucoma suspects of high risk may be managed by either an optometrist or ophthalmologist, and should be assessed at least annually. High risk glaucoma suspects have one or more of the following, but the variation from the normal is much greater than that seen in low risk suspects:

- IOP > 21 mm Hg
- suspicious disc or cup to disc (C/D) asymmetry of > 0.2
- suspicious 24-2 (or similar) VF defect (*Can J Ophthalmol.* 2009;44 (supp 1):S1-S54)

High risk glaucoma suspects may include:

- IOP in the high 20s and a positive primary family history of glaucoma, but no other significant ocular findings
- Suspicious cupping, thin central corneal thickness, IOP in the low 20s but no other significant ocular findings

A high risk glaucoma suspect requires more frequent evaluations and/or testing following the establishment of baseline clinical data. Patients should be made aware of their risk factors for developing glaucoma, and the rationale to initiate ocular hypotensive therapy should be discussed.

Patients with Primary Open Angle Glaucoma

Optometry Regulation:

Optometrists "... may only treat a patient with glaucoma where the patient has primary open-angle glaucoma the treatment of which is not complicated by either a concurrent medical condition or a potentially interacting pharmacological treatment."

In addition, "It is a standard of practice of the profession that a member may only treat a patient having open-angle glaucoma, the treatment of which is complicated by either a concurrent medical condition or a potentially interacting pharmacological treatment, in collaboration with a physician with whom the member has established a co-management model of care for that patient and who is:

(a) certified by the Royal College of Physicians and Surgeons of Canada as a specialist in ophthalmology; or

(b) formally recognized in writing by the College of Physicians and Surgeons of Ontario as a specialist in ophthalmology."

Patients with Early POAG

Patients with early POAG may be diagnosed and managed by either an optometrist or ophthalmologist. Careful baseline data should be established. Follow-up examinations should be at least every 6 months over the following 18 months in order to begin establishing the rate of progression. In general, stable patients should have an IOP assessment at least every 6 months, with visual field and objective optic nerve head assessment at least annually, depending on the clinical presentation.

Patients with Moderate POAG

Patients with moderate POAG may be diagnosed and managed by either an optometrist or ophthalmologist. However, optometrists are encouraged to refer the patient to an ophthalmologist immediately should they have any unresolved concerns over the patient's status. Alternatively, they may consider initiating treatment and referring the patient within a reasonable period of time (for example, 6 months) for consideration of future shared management. Following the establishment of sound baseline data, patients with a stable clinical presentation should have an IOP assessment at least every 6 months, with visual field and objective optic nerve head assessment at least annually, depending upon the clinical presentation. Should a patient with moderate POAG being managed by an optometrist demonstrate disease progression despite optimal medical therapy, the patient should be referred to an ophthalmologist.

Patient with Advanced POAG

Patients with advanced POAG are at significant risk of going blind and should be treated by the most experienced eye care professional available. In light of the frequent need for surgical intervention, an ophthalmologist with expertise in the surgical management of this disease should be responsible for the care of these patients. Should all treatment options be exhausted, a quiet end-stage eye may be more appropriately followed in a shared management arrangement.

IOP, visual fields and objective optic nerve assessment should occur at least every 3 to 6 months until the patient is considered stable. Patients with severe disease are at high risk of visual disability and blindness and should generally be treated more aggressively and followed at more frequent intervals

than those with earlier disease.

The clinical management of these patients should focus on ensuring stability of the IOP, visual field and optic nerve, adherence to treatment, and tolerance to medications.

Glaucoma Progression

Detecting, and ideally preventing, progression is key to the management of glaucoma.

The following are clinical scenarios of unstable glaucoma patients, taken from the COS Guidelines:

i. **IOP criterion:** If a patient on glaucoma treatment is not meeting target IOP despite changes being made in their medical management.

ii. **Visual field criterion:** If a patient on glaucoma treatment demonstrates repeatable, clinically significant and greater than expected change in the visual field, despite changes being made to their target IOP and medical management.

iii. **Optic nerve criterion:** If a patient on glaucoma treatment demonstrates repeatable, clinically significant and greater than expected change in the appearance of the RNFL or the optic nerve (for example, disc hemorrhage), despite changes being made to their target IOP and medical management.

The COS Glaucoma Guidelines recommend that a correlation between structural and functional changes be sought in suspected progression, even though it is more common for a change to be detected with one or the other independently. At all times, the variability of test results, both for structural and functional assessments, should be kept in mind, along with the existence of both false positive and false negative results.

Shared Management

The **Optometry Regulation** requires an optometrist to share management with an ophthalmologist for:

(a) POAG complicated by a concurrent medical condition, *or*

(b) POAG complicated by a potentially interacting pharmacological treatment.

In such circumstances there must be clear and documented communication outlining the expectations with respect to disease management, frequency of visits to each eye care professional and criteria for fast-track referral. It is important that the patient understands which clinician is the primary point of contact. This will normally be the optometrist, unless agreed upon by the optometrist and ophthalmologist and communicated to the patient. Repetition of tests should be minimized wherever possible.

Concurrent medical or ocular conditions of note may include but are not limited to:

- If a beta blocker is to be considered: these agents may be contraindicated if there is a history of congestive heart failure, bradycardia, heart block, asthma, chronic obstructive pulmonary disease or poorly controlled diabetes.
- If a prostaglandin is to be considered: these agents may be contraindicated if there is intraocular inflammatory disease or a history of cystoid macular edema (CME).
- If a cholinergic is to be considered: these agents may be contraindicated if there is intraocular inflammatory disease, retinal lattice degeneration, retinal tears or retinal detachment.

Potentially interacting pharmacological treatments of note may include:

- If a cholinergic is to be considered: these agents may interact with MAO inhibitors.

Note: the above bullets are not intended to be a comprehensive list in any way.

Recommendations for Shared Management:

- The results of all tests should be communicated between optometrist and ophthalmologist
  - *This could be as simple as stating: fields stable, no change in RNFL or ONH, IOP 14/15*
- All changes in management should be communicated between optometrist and ophthalmologist
  - *This could include changes in treatment, frequency of visits, and frequency of testing*
- All changes in advice to the patient should be communicated between optometrist and ophthalmologist
  - *This could include timing of medications, and use of punctal occlusion*

- Any changes in disease status or complications should be communicated between optometrist and ophthalmologist
  - *This could include disease progression, allergic reactions, significant side effects, and development of concurrent disease which may complicate test results (e.g. AMD, cataract)*

Secondary Glaucoma

Optometry Regulation:

"It is a standard of practice of the profession that a member (optometrist) shall immediately refer a patient having a form of glaucoma other than primary open angle glaucoma to a physician or to a hospital."

Recommendation:

Under these circumstances, following the initial referral there should be communication between the ophthalmologist and optometrist with respect to the diagnosis and ongoing management of the patient. The ophthalmologist may assume care of the patient, may recommend active shared management, or may offer to see the patient on an as needed (consultant) basis, specifying that the optometrist continues to provide primary care.

For example, a patient presents with pigment dispersion syndrome, suspicious cupping with a C/D ratio of 0.7, a repeatable nasal step defect, and IOPs of 25mmHg. The optometrist diagnoses the secondary glaucoma, and immediately arranges a referral to an ophthalmologist. The diagnosis is confirmed and a management strategy is developed. At that time, the ophthalmologist may elect to continue caring for the patient, may recommend a shared care paradigm, or may return the patient to the optometrist for continued care while remaining available on an as needed basis. A second possibility involves the optometrist calling the ophthalmologist, and the two agreeing upon an initial therapeutic approach until the ophthalmologist is able to review the patient.

Angle Closure Glaucoma

Optometry Regulation:

"(1) Subject to subsections (2) and (3), it is a standard of practice of the profession that a member (optometrist) shall immediately refer a patient having a form of glaucoma other than primary open angle glaucoma to a physician or to a hospital.

(2) It is a standard of practice of the profession that a member may initiate treatment for a patient having angle-closure glaucoma only in an emergency and where no physician is available to treat the patient.

(3) It is a standard of practice of the profession that a member shall immediately refer any patient being treated in accordance with subsection (2) to a physician or hospital once the emergency no longer exists or once a physician becomes available, whichever comes first.

(4) In this section, "hospital" means a hospital within the meaning of the Public Hospitals Act."

Recommendation:

i. Angle Closure Suspect and Narrow Angles[1]: An optometrist may monitor narrow angles in patients at risk of eventually developing Angle Closure and/or Angle Closure Glaucoma. The optometrist should refer the patient to an ophthalmologist for consideration of prophylactic iridotomies should there be a risk of the angle becoming occludable.

ii. Primary Angle Closure: The optometrist should refer the patient to an ophthalmologist.

iii. Primary Angle Closure Glaucoma: The optometrist should refer the patient to an ophthalmologist.

iv. Acute Angle Closure: An attack of Angle Closure Glaucoma is an ocular emergency. A timely referral to a physician or hospital must be made. When it is in the patient's best interest, optometrists

[1] Definitions provided in: Angle Closure and Angle Closure Glaucoma. WGA Consensus Series 3. Eds: R.N. Weinreb & D.S. Friedman. Kugler Publications. 2006

Narrow Angles: Open but can close under appropriate circumstances; unable to view posterior trabecular meshwork (270°); IOP not elevated.

Primary Angle Closure Suspect: Narrow angles, verified by gonioscopy; no peripheral anterior synechiae; IOP not elevated; no evidence of disease (disc or field).

Primary Angle Closure: Shallow anterior chamber angle in presence of iridotrabecular contact, verified by gonioscopy; peripheral anterior synechiae; elevated IOP; no evidence of disc or field damage.

Primary Angle Closure Glaucoma: Shallow anterior chamber angle in presence of iridotrabecular contact, verified by gonioscopy; peripheral anterior synechiae; elevated IOP; evidence of disc and/or field damage.

should initiate emergency treatment for these patients within their clinical practices using appropriate therapy.[2]

For an optometrist and ophthalmologist to share the management of patients with Angle Closure and Angle Closure Glaucoma, following treatment by the ophthalmologist, there needs to be clear and documented communication outlining the expectations with respect to disease management, frequency of visits to each eye care professional and criteria for fast-track referral. It is important that the patient understands which clinician is the primary point of contact. This will normally be the optometrist, unless agreed upon by the optometrist and ophthalmologist and communicated to the patient. Repetition of tests should be minimized wherever possible.

Conclusions

The legal landscape of glaucoma care in Ontario has changed significantly with the recently expanded scope of practice for optometrists. The glaucoma suspect and patients with primary open angle glaucoma may be independently managed by optometrists. In addition, the amount of shared management between optometrists and ophthalmologists will increase. A patient-centred strategy, with particular attention to the patient's needs, coupled with frequent and clear communication between patient and practitioner, and between optometrist and ophthalmologist will result in optimum outcomes for patients.

The goal of these Guidelines is to propose a practical, patient-centered approach to the new regulations introduced for optometry. The aim is to maximize the accessibility, quality and safety of care for the patient within the Ontario health care environment, providing them with state of the art glaucoma care. At the same time, the recommendations in this document are meant to minimize duplication of effort and to utilize the available resources appropriately, with a view of achieving a cost-effective model of care for these patients.

La version française de cet article suivra dans le numéro 3.

[2] Optometric Practice Reference. College of Optometrists of Ontario.

Mini-scleral Lenses in the Treatment of Neurotrophic Keratopathy Secondary to Möbius or Möbius-like Syndrome

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Introduction

Möbius or Möbius-like syndrome is a disease within a group of syndromes known as "terminal transverse defects with orofacial malformations".[1] The condition was originally recognized by Von Graefe in 1880 and later, more extensively described by Moebius in 1888.[2] It is characterized by a unilateral or bilateral, nonprogressive congenital facial palsy with impairments of ocular abduction. It is also associated with other cranial nerve palsies, orofacial dysmorphism (congenital malformations of the face and/or mouth), and limb or axial malformations.[2] Limb anomalies (hypoplasia) can range from mere syndactyly of the digits (webbed fingers or toes) to the absence of a limb. The craniofacial deformities vary even more and can include: micrognathism (undersized jaw), tongue malformations, facial and oral clefts, oligodontism (missing teeth) and cranial nerve palsies.[1] The presence of cranial nerve palsies is required to make the diagnosis of Möbius syndrome.[1] Patients may be

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ABSTRACT

Objective: This case report aims to explore the use of large diameter rigid gas permeable lenses (LDRGP) for the treatment of ocular and visual complications in a young patient presenting with neurotrophic corneas.

Methods: After a comprehensive eye exam and specific testing for contact lens fitting, LDRGP lenses were fitted with success and dispensed. RESULTS. Prescribed contact lenses helped the patient achieve optimal visual correction (6/6) as well as ocular protection for the cornea.

Conclusion: Neurotrophic keratopathy is a challenging condition due to its impact on ocular health and vision. LDRGP offer a unique way of addressing many issues raised in this case report such as corneal healing and visual restoration. This lens modality may be considered for any other case involving abnormal corneal tissue healing and reduced visual acuity.

Key words: *large diameter rigid gas permeable lenses (LDRGP), Möbius syndrome, neurotrophic keratopathy*

Objectif : Cette étude de cas vise à explorer l'utilisation de lentilles de grand diamètre rigides perméables aux gaz (LDRGP) afin de traiter les complications oculaires et visuelles d'une jeune patiente présentant un problème de kératite neurotrophique.

Méthodes : Après un examen de la vue complet et des tests spécialisés pour l'adaptation en lentilles cornéennes, des lentilles LDRGP ont été adaptées avec succès et livrées. RÉSULTATS. Les lentilles prescrites ont aidé la patiente à atteindre une correction visuelle optimale (6/6) et ont protégé la surface oculaire.

Conclusion : La kératite neurotrophique est une condition difficile à gérer a cause de son impact sur la santé oculaire et la vision. La correction avec des lentilles LDRGP offre une solution unique aux nombreux défis soulevés dans ce rapport tels que la cicatrisation de la cornée et la restauration visuelle. Ce type de lentille peut être envisagé afin de solutionner les cas de guérison anormale de la cornée avec baisse d'acuité visuelle.

Mots clés : *kératite neurotrophique, lentilles de grand diamètre rigides perméables aux gaz (LDRGP), Syndrome de Möbius*

affected by bilateral and incomplete facial nerve palsy, impeding them socially, given their inability to convey reactions of joy or sorrow.[3] *Table I* below summarizes clinical features that have been reported in cases of Möbius Synrome.

Möbius syndrome has been reported to usually occur sporadically but some heterogeneous inheritance patterns have been observed in several affected families.[2] The exact pathogenesis remains unclear and controversial. Fetal exposure to teratogens, disturbance in rhombencephalic development or acquired ischemic events occurring shortly after the fifth week in utero have all been proposed.[1,2] The insult is thought to lead to a chain of events involving a temporary interruption in the fetal blood supply to the lower brainstem. This then causes one or more focal areas of damage.[2] The facial, abducens, lacrimal and salivary nuclei are all located in the involved brainstem. They also tend to develop simultaneously in this phase of embryogenesis. This theory is supported by many studies that have found hypoplasia of the lower brainstem with flattening of the floor of the 4th ventricle in approximately 30% of cases of Möbius syndrome. They've also found gliosis and calcifactions in the same area.[2] The general concensus is that Möbius syndrome is a complex and multifactorial developmental disorder of the lower part of the brainstem. Möbius patients are often categorized according to the severity of their abnormalities. Defining the syndrome is confusing at times given the highly heterogeneous presentation.[1] Despite its wide spectrum of abnormalities, most patients with Möbius syndrome will present with orofacial findings including micrognatia, cleft palate, tongue anomalies, ear malformations and bifid uvula (split uvula).[5]

Ocular findings related to Möbius include severe limitations in abduction, with marked decrease of horizontal saccades, similar to a gaze paresis, most likely due to a supranuclear lesion.[3] Consequently, reading problems can occur. Other findings include epicanthal folds, and more rarely hypertelorism, coloboma, heterochromia, heterochromic cyclitis, nystagmus and limbal dermoids.[1] A significant loss of corneal sensitivity can occur as a result of the trigeminal nerve palsy (V). This nerve, which provides sensory innervation to the cornea, also allows constant renewal of epithelial cells. Surface squamous cells are constantly sloughing off every day; this process of continual renewal of cells is imperative for ocular surface integrity. In neurotrophic keratopathy, the cornea is deprived of sensation and does not produce and renew cells, but the normal loss of cells still occurs. In addition, the corneal reflex is attenuated, resulting in reduced protection of the ocular surface through a lack of blinking. Patients with neurotrophic keratopathy have worse signs than symptoms and are therefore at risk for corneal ulceration, resulting in severe and irreversible vision loss.[6] If the facial nerve is also affected, lagophthalmos, an incomplete closure of the eyelids while blinking, may result.[2,4] This case report explores how optometrists can help restore vision and protect the ocular surface in these patients using LDRGP.

The concept of neutralizing the refractive error induced by the cornea with an enclosed reservoir of liquid was first introduced in 1508 by Leonardo da Vinci.[7] Scleral

Table I: Clinical Features Reported in Cases with Möbius Syndrome[4]

System	Features
Neurological	Mental retardation, CNS abnormalities, Hypotonia, Epilepsy
Craniofacial	Cranium shape defect, Bitemporal narrowing, Epicanthic folds, Hypertelorism, Ptosis, Strabismus, Microphthalmia, Duane anomaly, Lacrimal duct defects, Flat nasal bridge, Teeth anomalies, Highly arched palate, Bifid uvula/cleft palate, Small tongue, Micrognathia, External ear defects, Low set ears, Short neck
Cranial nerves	Palsies: III, IV, V, VI, VII, VIII, IX, X, XII
Trunk	Poland anomaly, Congenital heart defect, Vertebral abnormalities, Kyphoscoliosis, Aplasia abdominal muscles, Underdeveloped genitalia
Limbs	Brachydactyly, Clinodactyly, Camptodactyly, Syndactyly, Ectrodactyly, Low set thumbs, Adducted thumbs, Supernumerary thumb, Flexion deformities of wrist, Hip defects/luxation, Hypoplasia of lower legs, Arthrogryposis, Clubfoot, Pes planus
Skin	Hemangiomas

lenses were first described in medical literature in the late 19th century. Adolf Fick proposed his use of glass blown shells in 1888. Eugene Kalt then used these vesicles to improve the vision of a patient with keratoconus. August Mueller later described his attempts to correct his own myopia with these glass lenses. Although these lenses did improve vision, they were not widely used due to challenges with manufacturing and wearing.[7] In the 1940's, polymethylmethacylate (PMMA), a new lens material was developed by workers such as Feinbloom, Obrig and Gyoffry.[8] The lenses were molded based on an impression of the cornea, which facilitated manufacture. However, the poor reproducibility and permeability of these lenses limited their distribution. In the mid-1900's, corneal contact lenses were introduced.[7] They were also originally made of PMMA but were smaller than scleral lenses, which made oxygen and tear exchange as well as fitting easier. With the later development of rigid gas permeable (RGP) materials, as first described by Ezekiel in 1983, oxygen was readily able to penetrate through the lenses themselves and further reduced complications related to contact lens wear.[7] These, in addition to soft lenses, stopped the further development of LDRGP fitting.[7,8]

A few years ago, only few specialized practitioners were fitting LDRGP lenses. Since then, there has been a slow but steady increase in the demand for these lenses as a solution for more challenging cases.[8] LDRGP designs have become more and more popular and are available in several options: a corneo-scleral lens (12.5 mm to 15 mm), supported partly by the cornea and partly by the sclera; a mini-scleral lens (15 mm to 18 mm) vaulting the cornea, supported by the fluid layer and the conjunctiva; or a larger scleral lens (18 mm to 25 mm) with the same fitting philosophy as the mini-scleral lens but with different parameters.[8]

This case describes the use of mini-scleral lens technology in restoring vision and protecting the ocular surface in a patient suffering from Möbius syndrome.

Background

In the fall of 2010, an 8-year-old Caucasian female was referred for a contact lens evaluation by an ophthalmologist for the treatment of neurotrophic keratopathy. She had been diagnosed with encephalopathy, likely of prenatal origin, resulting in a *forme frustre* of Möbius-like syndrome. Systemic manifestations of her condition included epilepsy, recurrent episodes of rigidity (especially when tired), agitated sleep, decreased pain sensation resulting in frequent injuries, complete deafness of the right ear, absent gag reflex, nasal congestion and trouble walking due to lower limb deformities. Her ocular history was remarkable for a trigeminal nerve (V) palsy, leading to loss of corneal sensitivity, as well as abducens nerve (VI) palsy. She also presented with lagophthalmia secondary to facial nerve (VII) malfunction. Combined, these anomalies triggered the development of neurotrophic corneas, worse in the right eye than the left. Consequently, she required ocular lubricants several times a day to preserve both the ocular surface and her vision. She was seen in the contact lens clinic in order to be fitted in RGP contact lenses to maintain constant lubrication of her cornea. The idea was to protect the ocular surface from eventual abrasions as well as improve her vision.

Clinical findings

Initial clinical findings are summarized in *Table II*.

Corneal topography was measured using a Medmont E-300. An axial power map displaying the paraxial power of the surface in diopters with respect to the keratoscope axis was selected (*Figure 1*). The color scale on the left represents the range of powers that can be found on the cornea, with dark red being the highest and dark blue being the lowest.[10] The E values at the top left, formerly what Medmont called Shape Factor, indicate the elliptical shape index for the Steep (in red) and Flat (in blue) axes of the cornea. The Sim-K values at the bottom left indicate the values for the Steep (in red) and Flat (in blue) axes of the cornea.[9] The patient's topography showed many irregular zones of the corneal surfaces in both eyes, but mostly in the right eye (*Figure 1*). There were large and rapid changes in power and shape. The interruptions in the image represent the device's inability to capture that part of the corneal surface

Figure 1– *Medmont Topography. Axial Power map images at the patient's initial presentation of the right (top) and left (bottom) eyes demonstrating tear film instability artifact and irregular zones.*

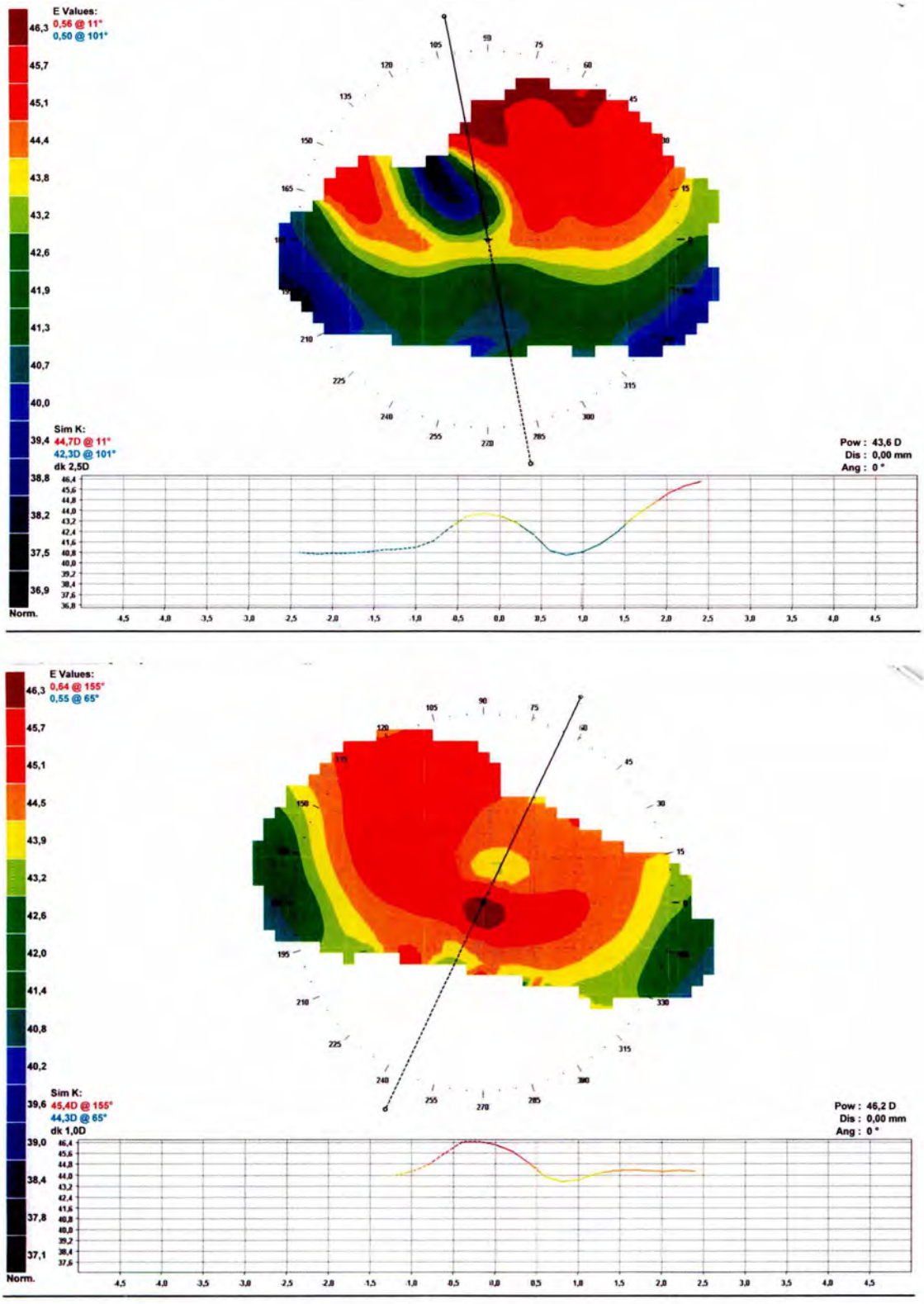

Table II: Clinical Findings on Initial Presentation to the Contact Lens Clinic

Clinical Findings	OD	OS
Unaided Visual Acuities	6/12[-2]	6/9[-1]
Cycloplegic Refraction	+4.75 −1.25 × 130 with VA: 6/7.5	+3.25 −1.50 × 175 with VA: 6/7.5
Anterior Segment Evaluation	**Cornea:** • Mid-peripheral scarring • Moderate diffuse punctate epithelial erosions (positive staining) **TBUT:** • >10s (normal) **Lacrymal lake:** • Moderately reduced at inferior margins	**Cornea:** • Mild to moderate central haze without scarring • Moderate diffuse punctate epithelial erosions (positive staining) **TBUT:** • >10s (normal) **Lacrymal lake:** • Moderately reduced at inferior margins
Dilated Fundus examination	**Optic nerve:** • Unremarkable **Macula:** • Unremarkable **Vessels:** • Unremarkable **Periphery:** • No breaks, holes or tears 360	**Optic nerve:** • Unremarkable **Macula:** • Unremarkable **Vessels:** • Unremarkable **Periphery:** • No breaks, holes or tears 360

due to tear film or other artifacts.[9] These surface issues contributed to the decrease in best-corrected visual acuity. *Figure 1* shows Axial Power map images at the patient's initial presentation.

The patient was diagnosed with moderate hyperopia and astigmatism, requiring optical correction, and bilateral neurotrophic keratopathy with scarring and irregular corneal surfaces. Spectacles were prescribed for full-time wear (for distance, near and intermediate activities) to provide an immediate visual correction and to serve as a back-up for contact lenses.

Treatment plan

After the glasses were prescribed, contact lenses were strongly recommended as the primary treatment for neurotrophic keratopathy. In this condition, the ocular surface must be protected to minimize the risk of erosion; contact lenses help maintain constant lubrication of the corneal surface, which allows for its restoration. A soft bandage does not provide a good outcome for visual correction on a highly irregular cornea. Small diameter RGP lenses can provide a better alternative to improve visual acuity but do not protect the ocular surface. In fact, these lenses can increase mechanical stress on an already altered cornea in this case. One of the ways to resolve this issue could be to consider a piggy-back system, which implies fitting a high oxygen permeability soft lens carrier on top of which a high permeability RGP lens is fitted. In that way, the soft carrier aims to protect the cornea while the RGP restores visual acuity. Another solution includes the implementation of hybrid lenses. These consist of a gas permeable rigid center surrounded by a silicone hydrogel soft skirt. In fitting this lens, the skirt is designed to lift the rigid center off the corneal surface so that it never has to interact with it. However, there have been some reported cases of warpage with these lenses.[10] In addition, most, if not all of the hybrid lenses do not offer enough oxygen permeability to maintain ocular health in the presence of a compromised cornea.[10]

LDRGP can also be considered. They are fitted in a way to vault the cornea. They maintain a constant reservoir of fluid between the lens and the cornea to ensure that it remains lubricated. Moreover, this fluid layer also compensates for surface irregularities, leading to improved visual acuity. This modality can provide the comfort of a soft lens with the optical quality of a gas permeable lens. In that way, LDRGP designs currently available are considered the best option to provide health benefits and increased comfort compared to smaller corneal RGP and, in this case, soft lenses. In the case of neurotrophic keratopathy, in order to determine which type of LDRGP to use, any touch on the cornea should be avoided. Corneo-scleral

lenses are contraindicated because a small portion of the cornea supports most of the weight of the lens. This may result in a stress to the tissue that could aggravate the corneal epithelial defect and/or generate scarring. The mini-scleral lenses represent an improved option, where cornea-lens touch is absent with a limited amount of fluid layer. In addition, they are smaller than scleral lenses and are therefore easier to handle and less intimidating for young patients to insert into their eyes.[8]

Lens trials

The patient was fitted successfully with a relatively new LDRGP on the market (One Fit P&A, Tyro 97 Blanchard Laboratories, Sherbrooke, Quebec.). The apical clearance and peripheral edge of this mini-scleral lens are designed to correct regular ametropia (high refractive errors, astigmatism, dryness related to contact lens wear (P&A profile) and are very successful in correcting irregular corneas (KC profile). The fitting process is simple and easy to learn. They are proven as easy to wear and as comfortable, once properly fitted, as a soft lens.[11] Based on the fitting guide, the initial base curve is selected 0.3 mm steeper than flat K, to provide a central clearance of 150 µm after 30 minutes of wear. This can be directly assessed at the slit lamp, using the known or estimated corneal thickness (555 µm on average), by comparing the width of the space between the lens and the cornea (the green fluorescein layer) to the slit width of the cornea.[12]

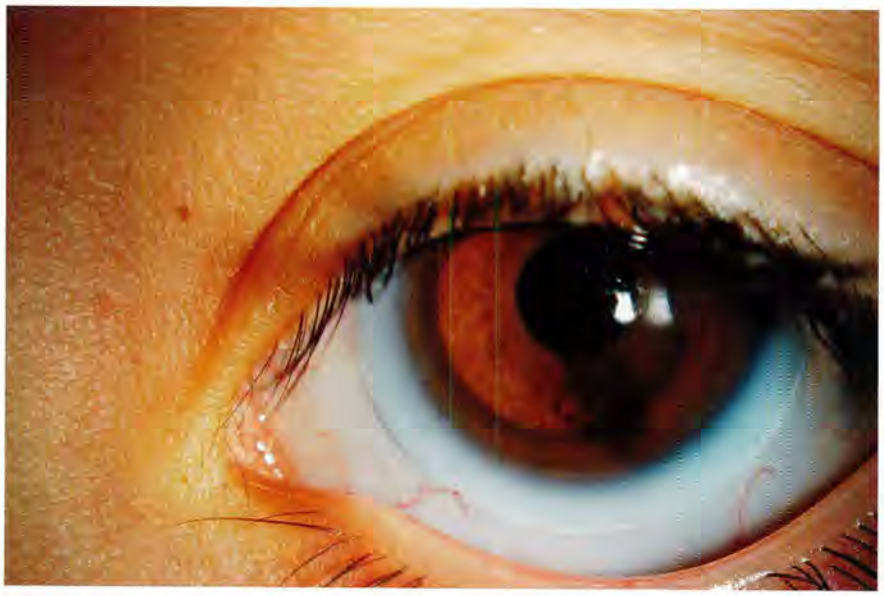

Figure 2 – *Similar appearance of the One Fit lens on another pediatric patient. One can appreciate the diameter of the lens, exceeding the visible cornea by at least 1 mm.*

This can be efficiently re-evaluated at subsequent follow-up visits. The lens diameter should exceed the cornea by at least 1 mm in every quadrant (*Figure 2*). The lens should offer no resistance on push-up, compression (blanching of the conjunctival vessels) or impingement (pinching of the conjunctival tissue resulting in staining).[8] The lens is inserted into the eye once it has been filled with fluid (non preserved saline solution or artificial tears). With LDRGP wear, the need for topical ocular lubricants during the day can be substantially decreased because the fluid inside the lens constantly surrounds and lubricates the cornea. It was recommended that the patient wear the contact lenses the majority of the time with the option of spectacle wear when the lenses were removed. The final prescription was made with the following parameters: +4.25 OD and +3.75 OS with base curves of 7.80 mm and diameters of 14.0 mm OU. The lenses were made of Tyro 97, a fluoro-silicone material with a Dk of 97 and a wetting angle of less than 10 degrees. This was the only contact lens, among all that were attempted, that satisfied both the physiological requirements of the ocular surface and the visual needs of the patient. In theory, the lifespan of these lenses is two years. An example of a One Fit lens in a pediatric patient can be appreciated above. (*Figure 2*)

With these lenses, the visual acuity was OD 6/7.5+2 and OS 6/6-1. After educating the patient and her parents on handling and cleaning the lenses, they were dispensed. According to a study conducted in 2008 by Gungor et al, there are no age restrictions in scleral lenses.[13] Nevertheless, fitting a patient of this young age did not come without its

challenges. She required many hours of practice before being proficient with the insertion and removal of the lenses. Proper hygiene and adequate cleaning of the lenses also had to be confirmed before dispensing them. Her parents also became proficient with these procedures in order to help her, if needed.

RGP cleaner and conditioning solution (Boston™) were recommended. Non-preserved artificial tears were prescribed (Refresh™, Allergan) to fill the lens before insertion. The patient was instructed to begin with 4 hours of wear on the first day and to increase by 2-hour increments every day, until reaching a maximum of 12 hours per day. At her 1- and 2-month follow-up visits, the patient's comfort and vision remained excellent. Anterior segment evaluation did not show any corneal staining, conjunctival redness, or any other signs of contact lens intolerance. She was then referred back to her ophthalmologist for further follow-ups. However, annual exams at the contact lens clinic were recommended to monitor contact lens fitting and parameters.

Discussion

Neurotrophic keratopathy is always a challenging disease to manage. In the case summarized here, the treatment plan was decided based on the ocular surface condition and the potential to restore visual acuity. It is recommended to have a back-up pair of glasses when prescribing specialty contact lenses. These both improve the vision when the patient is not wearing the lenses and provide a temporary solution if the patient has a problem with them.

An important consideration for prolonged contact lens wear is oxygen delivery to the cornea.[8] RGP are permeable to oxygen and allow it to pass through the lens. Tear flow underneath the lens, if present, can also bring tears rich in oxygen to the cornea. In LDRGP, the lens vaults the limbus so oxygen from the conjunctival and limbal vessels can also contribute to the oxygen supply.[8] One can calculate the overall oxygen transmissibility using the lens and fluid layer thicknesses and permeability to oxygen. In this system, the fluid layer represents the limiting factor, its Dk being 80×10^{-11} $(cm^2/sec)(mlO_2/ml \times mmHg)$. In this case, we can estimate the oxygen transmissibility with the following formula:

$$\frac{Dk}{t_{sol}} = \frac{1}{(t_1/Dk_1 + t_2/Dk_2)}$$

where Dk_1 and Dk_2 represent the permeability of lens and fluid layer whereas t_1 and t_2 are the lens and fluid layer thicknesses. Assuming that the lens is 300 μm thick, made with Tyro 97 material and fitted with a clearance of 125 μm centrally and 40 μm peripherally, this gives:

$Dk/t = 1/(3.0/97 + 1.25/80) = 21.5 \times 10^{-9}$ [cm/sec][mlO_2/(ml × mmHg)] (central)

$= 1/(3.0/97 + 0.4/80) = 27.8 \times 10^{-9}$ [cm/sec][mlO_2/(ml × mmHg)] (peripheral)

These values meet the Holden-Mertz criteria to avoid corneal hypoxia for daily wear.[14] This does not necessarily occur when the lens is fitted with higher clearance, which is usually the case for other designs and/or lenses over 16 mm in diameter.

Another interesting aspect of this case is the use of contact lenses in a pediatric population. It is now well known that contact lenses can be adequately fitted in patients as young as 8 years old, with a safety profile comparable to that of older patients.[15] Optical and psychological benefits of contact lens wear are multiple. They include: increased autonomy, self-esteem, better social interaction and behavior, improved visual acuity, etc. This modality is well-accepted by young patients but could be subject to resistance by their caregivers who seem to be slightly more reluctant.[16] In general, when caregivers are motivated and see the positive results of contact lens wear, it does not take long for them to fully endorse this modality of correcting their child's vision. Their collaboration is necessary to supervise the appropriate handling and cleaning of the lenses. Negligence is certainly the key factor leading to contact lens fitting failure. It is necessary for caregivers to become familiar with all of the procedures and readily help the young patient as needed.

In this particular case, it was difficult to appreciate any reaction from the patient due to her systemic condition, but her parents reported that she improved significantly at school, given her improved vision, and was also more engaged with other children. She had not reported any ocular discomfort and was eager to put her lenses in every

morning. The treatment had notably improved her behavior, according to her parents' reports. It is not rare that mini-scleral lenses have such a positive impact, in that they restore visual acuity as well as ocular comfort.

Sjögren's syndrome, persistent epithelial corneal defects, Steven's Johnson Syndrome, Graft Versus Host Disease, ocular cicatricial pemphigoid, atopic keratoconjunctivitis or other corneal irregularities resulting in poor vision are just a few examples of additional conditions that can be managed with the help of LDRGP.[8] Recent reports describe using LDRGP to deliver pharmacologic agents to the anterior surface of the eye. In the case of neurotrophic keratopathy where persistent corneal epithelial defects and even ulceration can occur, antibiotics can be instilled in the lens and placed directly on the eye.[17] This helps the ocular surface recover and heal properly. Patients are extremely grateful when the practitioner finds a successful solution to their problem.

It is well-known that LDRGP lenses are effective in the treatment of complex cases such as neurotrophic keratopathy secondary to Möbius syndrome. These lenses thus provide optimal treatment for this patient's ocular surface disease.

Conclusions

Fitting of mini-scleral contact lenses succeeded in treating bilateral neurotrophic keratopathy with corneal scarring that penalized visual acuity. Such lenses would be an ideal solution in any case of neurotophic keratopathy. It was extremely rewarding to use these lenses and thereby provide clear vision to a patient who had been struggling for many years with an ocular surface condition and consequently poor vision.

With the increasing recent interest of clinicians and manufacturers, mini-scleral lenses are becoming far more "mainstream" in contact lens practice. As optometrists, we should strive to continuously update our expertise in the area of contact lens design, thereby providing our patients with the latest lens technology and best solution for their signs and symptoms.

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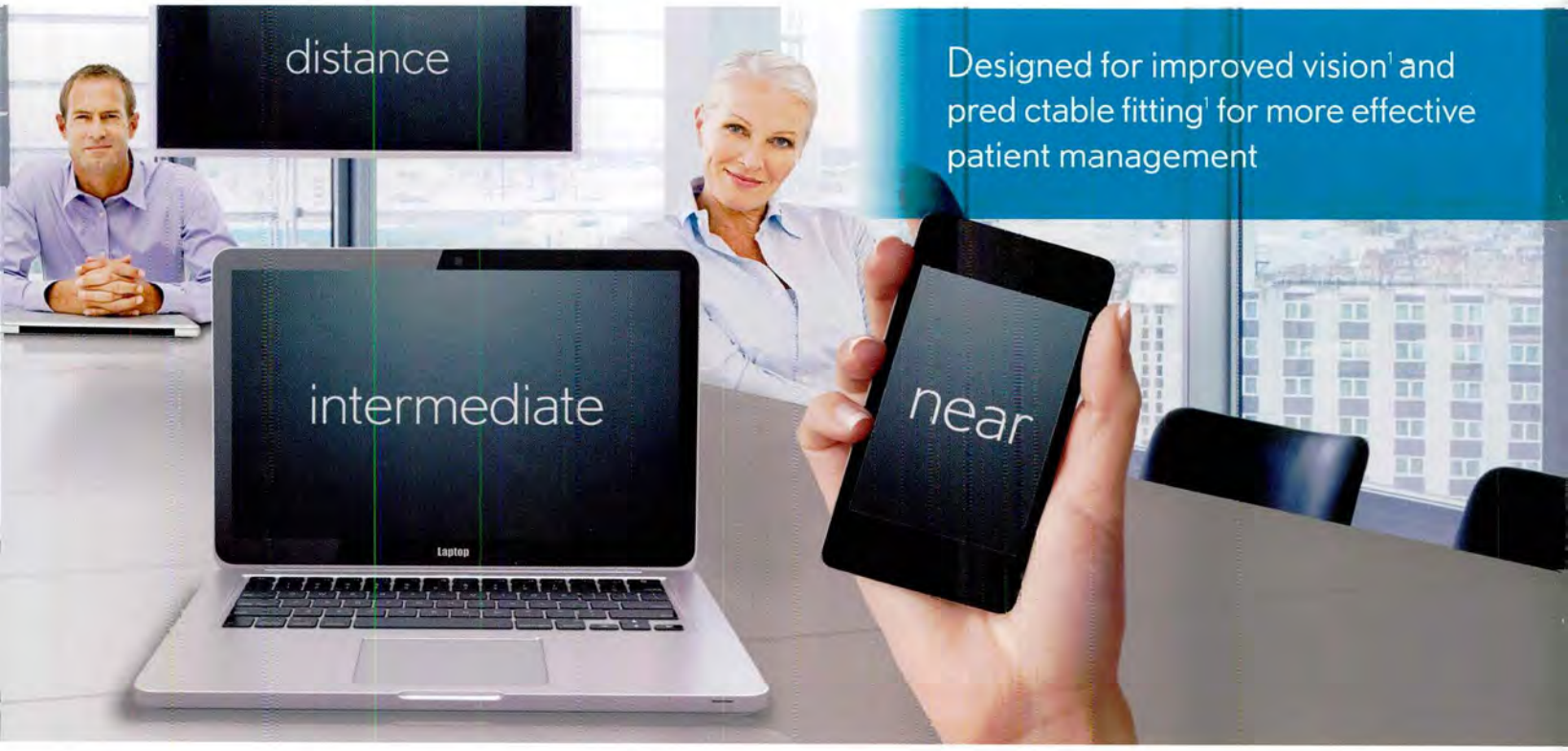

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