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REVUE CANADIENNE D'OPTOMÉTRIE

V. 68 No 6
NOVEMBRE • NOVEMBER 2006

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La *CJO•RCO* est prête à accueillir de nouveaux annonceurs. Dans l'esprit de l'objectif de la *CJO•RCO* visant à favoriser la sensibilisation, la formation et le professionnalism des membres de l'ACO, on pourra soumettre tout matériel publicitaire avant publication pour examen par le Comité national des publications de l'ACO. L'ACO se réserve le droit d'accepter ou de refuser toute publicité dont on a demandé l'insertion dans la *CJO•RCO*.

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Cover: This issue of the Canadian Journal of Optometry is an opportunity to wish the best of the season to our CJO readers from the CAO Council and staff. In the spirit of the season, in lieu of holiday cards, the CAO will donate to an Ottawa based charity. We wish you special and Happy Holidays!

Couverture: Cette édition de la Revue canadienne des optométristes est une occasion pour offrir nos meilleurs vœux à nos lecteurs de la part de la RCO, du Conseil et du personnel de l'ACO. Dans l'esprit des fêtes, au lieu des cartes de vœux, l'ACO a fait un don à un organisme caritatif à Ottawa. Nous vous souhaitons de spéciales et joyeuses Fêtes.

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World Sight Day: A word from the Minister of Health

Journée mondiale de la vue: Discours du ministre de la Santé

At an event leading up to World Sight Day, Dr Dorrie Morrow, CAO President, was asked to speak on behalf of optometry. Also in attendance was The Honourable Tony Clement, Minister of Health, who gave the following speech:

Introduction

First, let me just say how pleased I am to join you this afternoon as we prepare for next week's international celebration of World Sight Day.

I am particularly delighted by the presence of so many distinguished leaders in the field of eyesight and vision loss. People who have devoted their careers to the prevention of blindness, to the care and treatment of eyesight problems, and to advocacy on behalf of those who cannot see.

In Canada, we are especially fortunate to have a coalition that represents the interests and concerns of the blind, here and around the world.

A powerful coalition comprising organizations like his own Christian Blind Mission International, World Blind Union, Operation Eyesight, professional associations for optometrists and ophthalmologists and, of course, the Canadian National Institute for the Blind.

On behalf of Canada's new government, I want to applaud your selfless dedication to a vital cause: To raise awareness of the challenges faced by the visually impaired. To explore better ways to prevent eyesight loss. And to ensure that the simple and accessible measures used in developed nations to strengthen and restore sight are shared by others less fortunate around the globe.

Putting an end to preventable vision loss within the next 14 years is the goal of VISION 2020 – The Right To Sight, your admirable international coalition.

A goal as laudable as it is ambitious. Yet one that should be within reach, if governments, health professionals and non-governmental organizations are truly committed.

Context

And we should be committed, because the challenge is clear and compelling.

Vision loss is a problem of staggering proportions, affecting more than 160 million people around the world. And many more cannot see – for no better reason than that they have no access to eyeglasses.

In Canada, the problem is not due to a lack of glasses, but rather to a demographic change. More than 600 000 people already have vision problems, and this number will only increase with the aging population.

We will see more and more cases of macular degeneration and glaucoma. And the increase in the cases of diabetes,

Speech for The Honourable Tony Clement, Minister of Health and Minister for the Federal Economic Development Initiative for Northern Ontario

World Sight Day Launch 2006
October 4, 2006
Ottawa, Ontario

Discours pour l'honorable Tony Clement, ministre de la Santé et ministre de l'Initiative fédérale du développement économique dans le Nord de l'Ontario

Journée mondiale de la vue 2006
le 4 octobre, 2006
Ottawa, Ontario

particularly in the aboriginal population, will be accompanied by an increasing number of people suffering from diabetic retinopathy.

It is profoundly sad when a child is deprived of the chance to experience the world in the same way as those blessed with the gift of sight.

For adults, blindness can bring poverty and social exclusion, not to mention the strain on family and friends.

And for the elderly, vision loss can take away years of independence, and spark depression, falls, physical injuries and other unseen dangers.

All this carries an economic toll as well, with health care costs and lost productivity in the hundreds of billions of dollars.

And yet, it doesn't have to be this way – at least not for everybody. Three of every four cases of blindness in the developing world could be prevented through proper preventative measures and treatment.

And more than a hundred million people could see – with nothing more complicated than a pair of glasses, some special optical devices, or other rudimentary assistive materials like large-print books.

Personal commitment

This is why I have been a staunch supporter of efforts to address vision loss, both at home and abroad.

OPTOMETRY GIVING SIGHT

In 2003, three renown ocular organizations – the World Optometry Foundation (WOF), the International Centre for Eyecare Education and the International Agency for the Prevention of Blindness – joined together to launch Optometry Giving Sight (OGS). OGS is the only global fund raising initiative to specifically target the prevention of blindness due to uncorrected refractive error.

It is optometry's solution to the problem. And it is a global problem. There are an estimated 250 million people around the world who are blind or visually impaired simply due to uncorrected refractive error.

The lofty goals of eliminating preventable blindness due to uncorrected refractive error are being accomplished through three key areas:

1. *Eye care service delivery - exams, low-cost glasses and low vision devices;*
2. *Human resources - training of optometrists, eye care personnel and their teachers;*
3. *Infrastructure - eye clinics & schools of optometry.*

OGS will concentrate support on three very needy projects: Giving Sight to Blind Children in Africa, The National Refractive Error Program for South Africa, and Vision Care Service Development in Sri Lanka. All three of these programs aim to develop sustainable primary eye care services.

"Optometry has the major global responsibility for vision correction," said Brien Holden, PhD, DSc, OAM, Chair and CEO of OGS, "Optometry 'owns' refractive error, and along with that opportunity comes the responsibility to ensure that everyone on the planet can see. We make a good living from refractive error. It is both our obligation and privilege to ensure that every man, woman and child, regardless of circumstances and especially those in need, have access to an eye examination and a pair of spectacles."

OGS: Helping to Alleviate Poverty

OGS was officially launched in Canada last July at the CAO Congress in Ottawa. Dr Scott Brisbin, in private practice in Edmonton and currently President of WOF states, "The first phase is to get optometrists to contribute directly. The second phase, our Practice Giving Program, involves optometric patients, doctors and staff. Frankly, this second phase represents the biggest potential. It is based on the premise that a little bit from a lot of people makes for quite a significant amount of money by the time you're finished."

The program is simple – invite your patients to make a small donation, as little as a loonie or toonie and then match it. The fact that you are asking for a tiny inconsequential amount makes the asking easy, and the commitment of doctor-matching really gets the patients' attention and respect. The matching by doctors can be open-ended, limited to a maximum monthly amount or a monthly guarantee regardless of what patients give.

For instance, I have been a very public admirer of the work of ORBIS Canada and its Flying Eye Hospital.

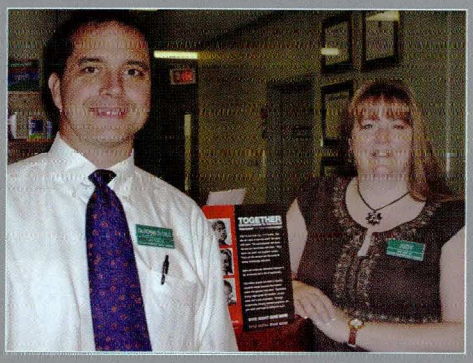
ORBIS is about teams of health professionals and others with strong humanitarian streaks who travel to developing nations delivering training, public health education and better access to eye care.

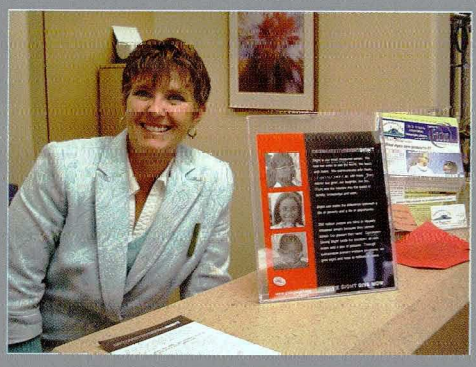
The idea is to boost the skills, knowledge and resources on the ground, so that the local community can keep up the good work, long after the ORBIS plane has left for its next destination.

Indeed, I have had the pleasure of volunteering for ORBIS Canada, using my contacts to help raise funds and bring more members of the ophthalmic community into this excellent organization.

I strongly believe that the international community can make a real difference in preventing and addressing vision loss for so many people. And even the most modest investments are rewarded with tremendous payoffs in terms of enhanced independence and quality of life.

For these reasons, I have also been a great admirer of your VISION 2020: Right to Sight coalition. And it's why I was most pleased when Canada joined other WHO member countries to support the coalition's blindness-prevention resolution at the 2003 World Health Assembly.





Left photo: Dr. Gall and Judy Duggan-McCormack of Gall & Associates in Oakville, Ontario

Right photo: Tracie Kozak, optometric assistant at Prairie Vision Centre, Wainwright Alberta.

The choice is yours. The doctors in Dr Brisbin's practice have chosen to match patient contributions dollar for dollar.

Involvement in OGS is not only a good moral decision, but it will enhance your business' reputation and that of optometry in general in your community.

This year, Canadian optometrists are being approached about participating in the pilot Practice Giving Program. To date, over 40 Canadian practices are taking part, but more are still needed. The program will be launched nationwide in 2007 with OGS providing complementary marketing materials and simple staff training.

"Wow, Optometry Giving Sight is a great program and our patients seem to love participating! Our staff has been extremely supportive of the program. The introduction was made at our monthly staff meeting and we began the program the next day. ...As long as the amount you are asking for is minimal, there is absolutely no pain in giving... There is not a big time commitment required to implement this program. It is just a mindset that becomes a habit at the office", said Dr Ron Gall of Oakville, Ontario. Dr Gall runs the first Canadian practice to start the Practice Giving Program, which they began in July this year. As with other US and Canadian practices, Dr Gall estimates that about 75% of patients donate.

Amy Barker, Optometric Assistant at Spectrum Vision Clinic in Fredericton, New Brunswick states, "I feel the information we give our patients is very clear and easy to understand. I also like that we don't ask for a huge donation, just a dollar or two."

Further west, Ken Hrubeniuk, Office Manager for Prairie Vision Centre in Wainwright, Alberta comments, "It has been exciting to see how easy it has been to collect money for this program from our patients. Yesterday we had a single patient donation of $50!"

So, yes, the program is good for your business, motivating for staff and simple to run, so why not get on board? Through OGS, you and your patients are creating hope and opportunity for millions in need.

For more information on OGS and enrolling in our Practice Giving Campaign, contact OGS at canada@givingsight.org or call 1-800-585-8265.

GUEST ARTICLE
ARTICLE INVITÉ

Government initiatives

I am gratified to say that Canada is following through with a number of important steps to address vision loss.

The Public Health Agency of Canada is addressing eyesight loss from a chronic disease perspective, since blindness is a leading complication of diabetes.

And with support from the CNIB, the Agency's Division of Aging and Seniors has also recently begun a multi-year project to improve public awareness regarding vision loss and vision rehabilitation – the goal here is to help give seniors the tools they need to manage their own vision health.

To help address vision loss in our aboriginal population, Health Canada's Aboriginal Diabetes Initiative provides retinal screening on-reserve, while the Non-Insured Health Benefits Program provides vision care benefits to First Nations.

In terms of research, the Canadian Institutes of Health Research supports work that will help us better understand the functioning of human vision and other senses, while contributing to our ability to develop more effective prevention, screening, and treatment strategies.

Of course, we don't work alone. We count on the partnership of people like you, to bring real improvements to the communities you serve.

And so, for instance, the Public Health Agency and Health Canada have been working closely with the Canadian National Institute for the Blind, particularly through our Canadian Diabetes Strategy.

We also work with the National Coalition for Vision Health, with an important think-tank meeting coming up next winter.

You may recall that Canada's federal, provincial and territorial governments agreed two years ago to the development of evidence-based benchmarks for medically acceptable wait times for sight restoration – along with cancer, heart, diagnostic imaging procedures and joint replacement.

Our government has also adopted sight restoration as a priority for a patient wait-times guarantee. The provinces and territories, for their part, have undertaken to significantly cut wait times for cataract surgery over the next six months.

And I am happy to report that even more tangible progress is being made. Between August 2005 and last January, for instance, the median wait time for cataract surgery in Ontario went down by 21 percent.

Conclusion

As I look around this hall, I see plenty of pairs of spectacles. Many of you, I expect, find yourself resenting the need for corrective lenses – at least some of the time. I know I do. Glasses are a pain in sports – and we all know what it's like to come inside on a cold winter day.

But, in the global scheme of things, we truly are blessed. Few Canadians lack access to glasses or contact lenses to restore normal sight. And if our vision deteriorates further, we can seek help – including medications, special assistive devices and even surgery.

We can also take comfort in the knowledge that there are many supports in Canadian society – buildings and infrastructure that are designed for accessibility.

And, most important, the many selfless people and organizations like yours, lending practical aid and support to the visually impaired, and advocating for their interests.

Of course, there's more we can do. And with our aging population, there's more we must do.

But, at the same time, we cannot forget those who lack the advantages we enjoy. The millions of children and adults around the world who are deprived of even the most rudimentary eye care and sight restoration measures.

World Sight Day is about those people. And it's about our collective capacity to make a difference.

Thank you.

Introduction

Je veux d'abord vous dire comme je suis heureux d'être avec vous aujourd'hui en préparation de la célébration internationale de la Journée mondiale de la vue qui aura lieu la semaine prochaine.

Je suis particulièrement ravi de voir un si grand nombre d'éminents chefs de file dans le domaine de la vue et des troubles visuels, des personnes dont la carrière est centrée sur la prévention de la cécité, le soin et le traitement des problèmes visuels et la défense des droits de ceux qui ne peuvent voir.

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coalition de Lindsay [O'Connor] pour représenter les intérêts et les préoccupations des personnes aveugles ici et ailleurs dans le monde.

C'est une puissante coalition comprenant des organismes comme sa propre Christian Blind Mission International, l'Union mondiale des aveugles de Penny (Hartin), Operation Eyesight, des associations professionnelles pour optométristes et ophtalmologistes et, bien sûr, l'Institut national canadien pour les aveugles.

Au nom du nouveau gouvernement du Canada, je tiens à souligner votre engagement altruiste envers cette cause vitale : sensibiliser le public sur les défis auxquels font face les handicapés visuels; chercher de meilleurs moyens de prévenir la perte de la vue; et faire en sorte que les mesures simples et accessibles utilisées par les pays développés pour renforcer et restaurer la vue soient partagées par d'autres pays moins fortunés partout dans le monde.

Mettre fin à la perte de vision évitable d'ici les 14 prochaines années : voilà l'objectif de VISION 2020 – Le droit à la vue, votre admirable coalition internationale.

Un objectif aussi louable qu'ambitieux, mais qui devrait être réalisable si les gouvernements, les professionnels de la santé et les organismes non gouvernementaux s'y engagent activement.

Contexte

Nous devrions nous engager parce que le défi est clair et emballant.

La perte de vision est un problème alarmant, touchant plus de 160 millions de personnes dans le monde. Et beaucoup d'autres ne peuvent voir – pour la simple raison qu'ils n'ont pas de lunettes.

Au Canada, le problème n'est pas attribuable à un manque de lunettes, mais plutôt à un changement démographique. Plus de 600 000 personnes éprouvent déjà des problèmes de vision, et ce nombre ne fera qu'augmenter avec le vieillissement de la population.

Nous verrons de plus en plus de cas de dégénérescence maculaire et de glaucome. Et l'augmentation des cas de diabète, particulièrement chez les Autochtones, sera accompagnée d'un nombre croissant de personnes souffrant de détérioration de la rétine.

Quelle tristesse lorsqu'un enfant n'a pas la chance de connaître le monde de la façon extraordinaire dont le connaissent ceux qui jouissent du cadeau de la vue!

Chez les adultes, la cécité peut engendrer la pauvreté et l'exclusion sociale, sans parler du stress sur la famille et les amis.

Chez les personnes âgées, la perte de la vue peut entraîner une perte d'autonomie précoce, une dépression, des chutes, des blessures physiques et bien d'autres dangers non aperçus.

Tout cela se traduit par un fardeau économique sous forme de soins de santé et de perte de productivité, dont les coûts se chiffrent en milliards de dollars.

Et pourtant, il n'est pas nécessaire qu'il en soit ainsi – du moins pas pour tous. Dans les pays en développement, trois cas de cécité sur quatre pourraient être évités grâce à des mesures préventives et à un traitement pertinents.

Et plus d'une centaine de millions de personnes pourraient voir – grâce à de simples lunettes, un matériel optique spécial ou d'autres aides rudimentaires comme des livres à gros caractères.

Engagement personnel

Voilà pourquoi j'ai toujours encouragé les initiatives qui s'attaquent au problème de la perte de la vue, tant ici qu'à l'étranger.

Par exemple, j'ai toujours admiré le travail d'ORBIS Canada et de son Flying Eye Hospital.

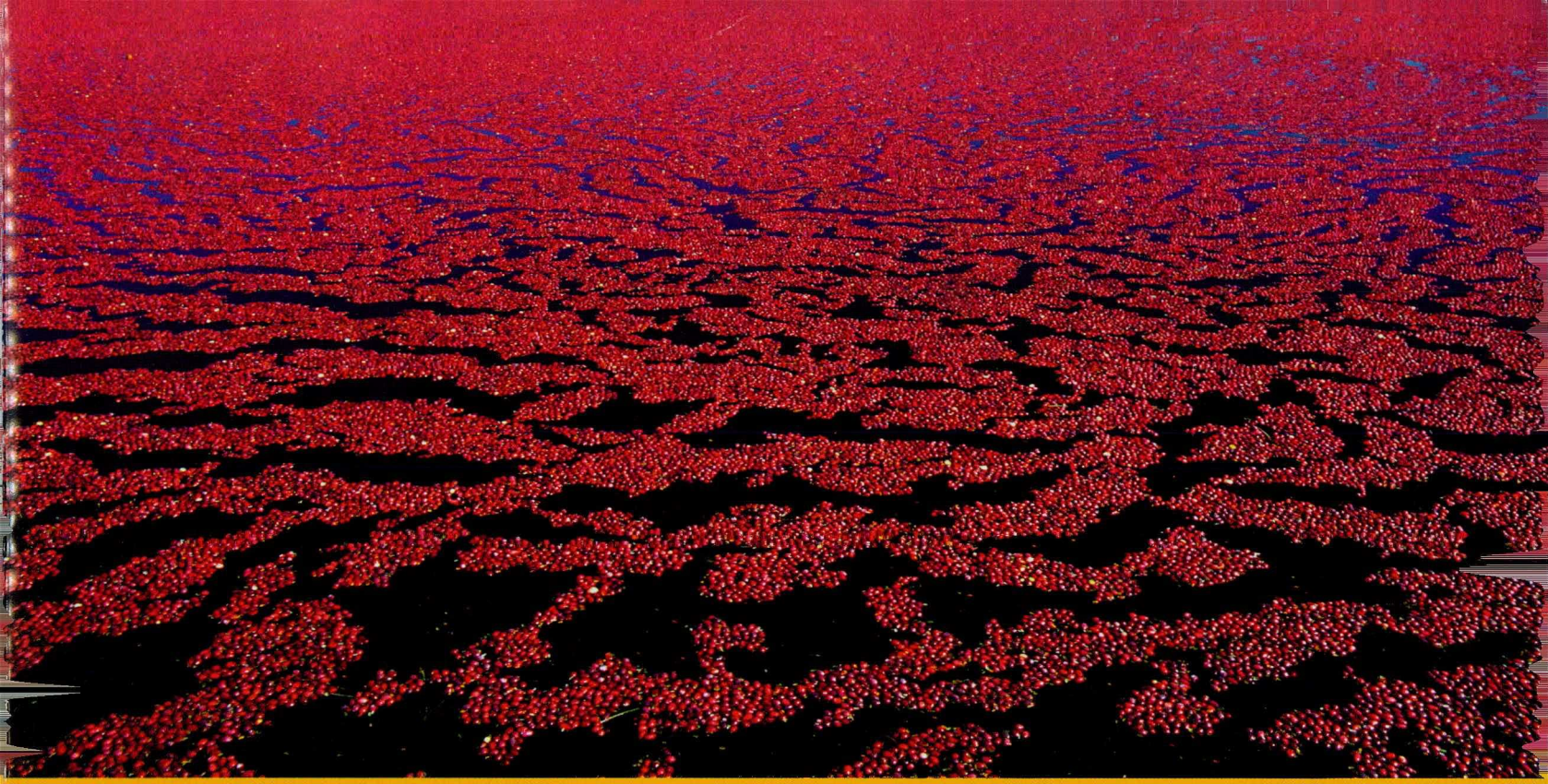
ORBIS ce sont des équipes de professionnels de la santé et d'autres personnes soucieuses de travail humanitaire qui voyagent dans des pays en développement afin d'offrir de la formation, de l'éducation en santé publique et un meilleur accès à des soins oculo-visuels.

Le but est de consolider les compétences, les connaissances et les ressources sur le terrain afin que la communauté locale puisse continuer le bon travail longtemps après le départ de l'avion d'ORBIS pour une autre destination.

De fait, j'ai eu le plaisir de travailler bénévolement pour ORBIS Canada, utilisant mes contacts pour mousser des campagnes de financement et solliciter d'autres membres de la communauté ophtalmique à joindre cet excellent organisme.

Je crois fermement que la communauté internationale peut faire une réelle différence dans la prévention et le traitement de la perte de la vue chez beaucoup de personnes. Le plus petit investissement rapporte énormément par une autonomie et une qualité de vie améliorées.

C'est pourquoi j'ai toujours



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Reference: 1. Environics Research Company, Survey of Optometrists and General Ophthalmologists, June 2006.

beaucoup admiré votre coalition VISION 2020 : Le droit à la vue, et je me suis réjoui lorsque le Canada s'est joint à d'autres pays membres de l'OMS pour appuyer la proposition de la coalition sur la prévention de la cécité à l'Assemblée mondiale de la Santé de 2003.

Initiatives du gouvernement

Je suis heureux d'annoncer que le Canada s'engage dans le même sens par un certain nombre de démarches importantes pour faire face au problème de la perte de la vue.

L'Agence de la santé publique du Canada considère la perte de la vue comme une maladie chronique, car la cécité est l'une des principales conséquences du diabète.

Avec l'appui de l'INCA, la Division du vieillissement et des aînés de l'Agence a aussi mis sur pied récemment un projet sur plusieurs années pour sensibiliser le public à la perte de la vue et à son traitement – l'objectif étant de donner aux aînés les outils dont ils ont besoin pour gérer leur propre santé visuelle.

Pour faire face au problème de la perte de la vue chez notre population autochtone, l'Initiative sur le diabète chez les Autochtones de Santé Canada fournit un service de dépistage rétinien dans les réserves, tandis qu'un programme de services de santé non assurés fournit des services de soins de la vue aux Premières nations.

Au plan de la recherche, les Instituts de recherche en santé du Canada appuient des travaux qui nous feront mieux comprendre le fonctionnement de la vue et des autres sens chez l'humain et nous aideront à élaborer des stratégies de prévention, de dépistage et de traitement plus efficaces.

Évidemment, nous ne travaillons pas seuls. Nous comptons sur des partenariats avec des gens comme vous pour apporter de réelles améliorations dans les communautés que vous desservez.

C'est ainsi, par exemple, que l'Agence de la santé publique et Santé Canada ont travaillé en étroite collaboration avec l'Institut national canadien pour les aveugles, particulièrement par l'entremise de notre Stratégie canadienne du diabète.

Nous travaillons aussi avec la Coalition nationale en santé oculaire, qui tiendra un important forum de réflexion l'hiver prochain.

Vous vous souvenez peut-être que les gouvernements fédéral, provinciaux et territoriaux du Canada se sont entendus il y a deux ans pour développer des repères factuels à l'égard de temps d'attente médicalement acceptables pour la restauration de la vue – de même que pour les soins du cancer, les soins cardiaques, l'imagerie diagnostique et le remplacement d'articulations.

Notre gouvernement a aussi adopté la restauration de la vue comme une priorité d'une garantie sur les délais d'attente pour les patients. De leur côté, les provinces et les territoires ont entrepris de réduire de façon significative les temps d'attente pour la chirurgie de la cataracte dans les six prochains mois.

Et je suis heureux de vous annoncer des progrès encore plus tangibles. Par exemple, entre août 2005 et janvier dernier, le temps d'attente médian pour la chirurgie de la cataracte en Ontario a diminué de 21 %.

Conclusion

Quand je regarde dans cette salle, je vois beaucoup de lunettes. Nombre d'entre vous, je suppose, repoussent l'idée d'avoir besoin de lentilles correctrices. C'est mon cas. Les lunettes sont gênantes dans le sport – et entrer à l'intérieur par une froide journée d'hiver… nous l'avons tous expérimenté!

Mais de façon générale, nous sommes vraiment chanceux. Peu de Canadiens n'ont pas accès à des lunettes ou des lentilles de contact pour retrouver une vue normale. Et si notre vision se détériore davantage, nous pouvons obtenir de l'aide – comme des médicaments, des accessoires fonctionnels spéciaux et même une chirurgie.

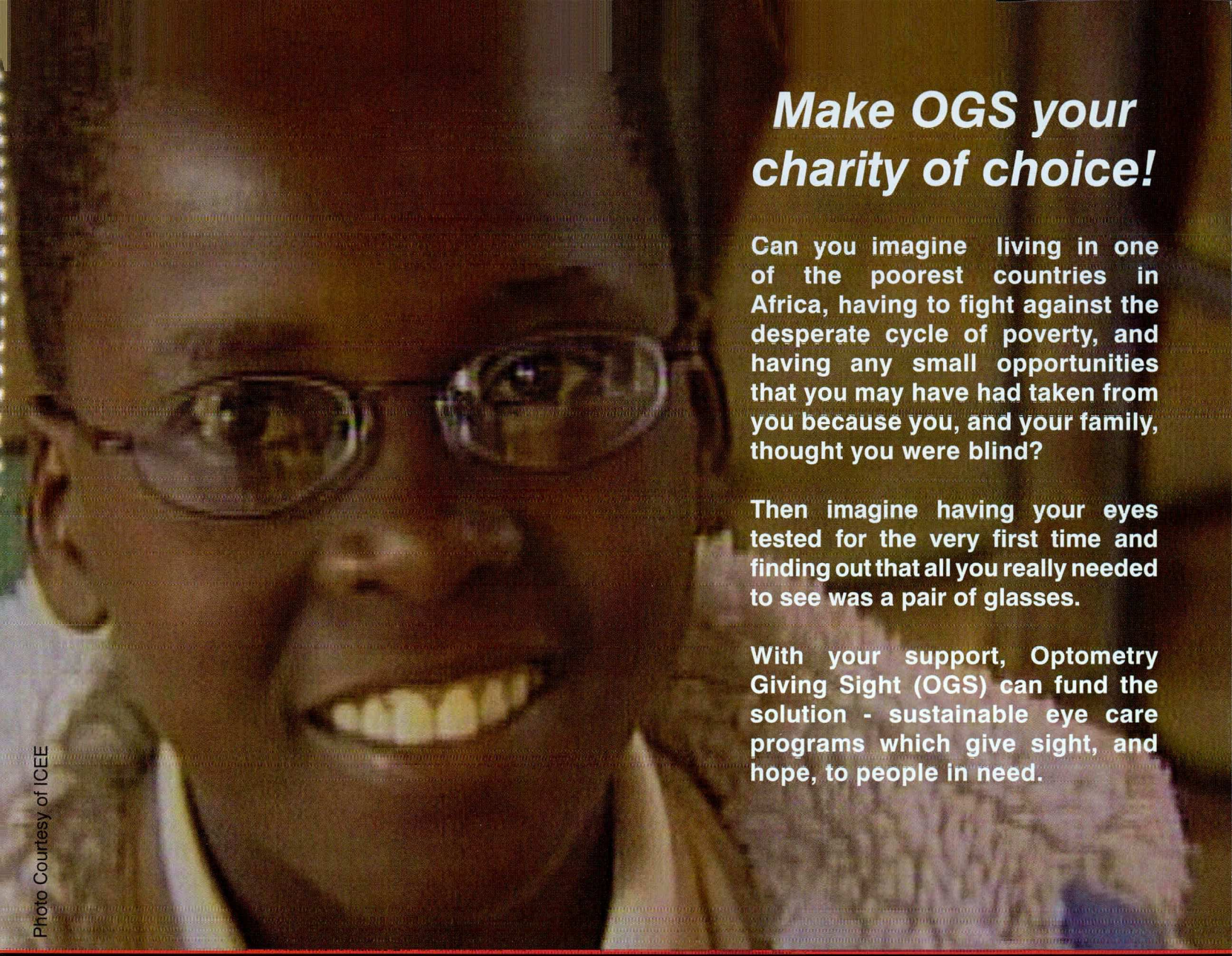
Il est aussi encourageant de savoir qu'il y a beaucoup d'édifices et d'infrastructures dans la société canadienne qui ont pour but de favoriser l'accessibilité.

Et encore plus important, les nombreux organismes et personnes comme vous qui offrent une aide pratique et un appui aux handicapés visuels et défendent leurs intérêts.

Évidemment nous pouvons faire plus. Et avec notre population vieillissante, nous devons faire plus.

Mais en même temps, nous ne pouvons oublier ceux qui n'ont pas les privilèges que nous avons, les millions d'enfants et d'adultes partout dans le monde qui sont privés de soins oculo-visuels et de mesures de restauration de la vue les plus rudimentaires.

La Journée mondiale de la vue s'adresse à ces personnes et interpelle notre capacité collective de faire une différence. Merci.



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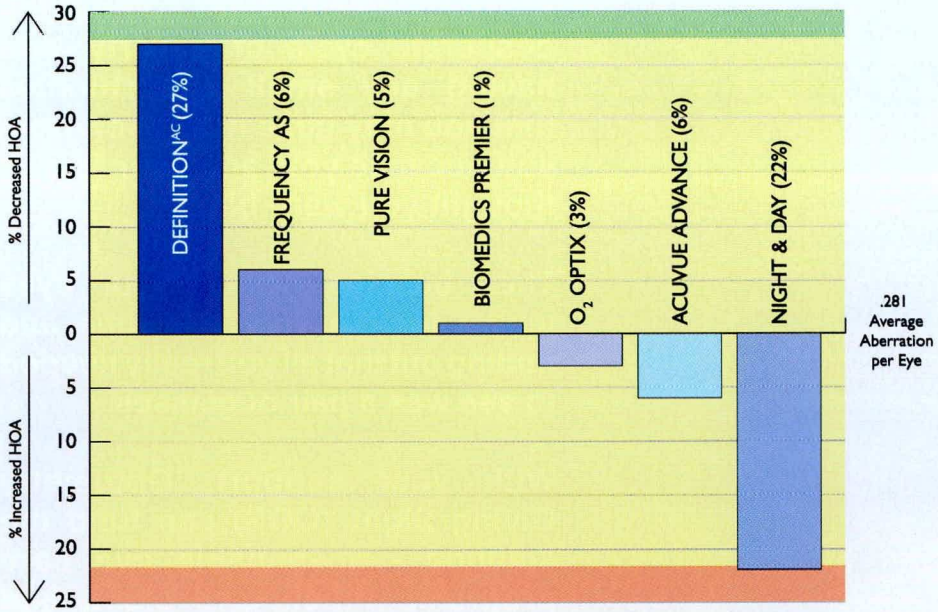

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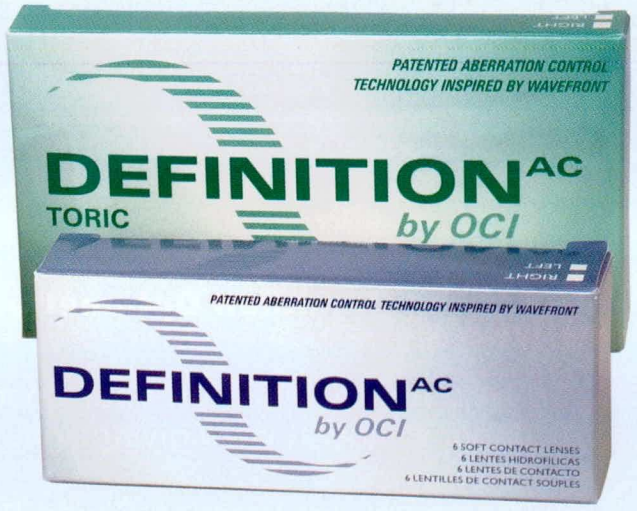

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Eye of the Beholder

L'œil de l'intéressé

Dorrie Morrow, OD
President / présidente

"We won't always know whose lives we touched and made better for our having cared, because actions can sometimes have unforeseen ramifications. What's important is that you do care and you act."

— Charlotte Lunsford

As you sit down to read this issue of the CJO, I trust you will be looking forward to a new year and reflecting on the one past. This is always a good time to take stock and, in doing so, it is very clear that our past efforts are not defined by who we are but what we do.

We all strive to leave a legacy and, on a professional level, I believe that legacy is our contribution to our profession and, most importantly, the quality of life we pass on to our patients because of our actions.

Each of us has a unique gift and skill to give to society. If you do not think so, just look at some of the most amazing structures on earth, the Great Wall, the Coliseum, the Parthenon, and the Taj Mahal. These and so many others are all breathtaking structures but I do not know the names of the individuals who built them. This does not take away from the fact that they were built and are treasures to behold by all today.

By focussing our efforts we all can contribute to great works that will remain long after we are gone. Now is a wonderful time to ask, "What good works can I help build?" If you need a little push, let me suggest just a few:

- *Join a volunteer optometric services group*
- *Join a local service group*
- *Mentor a student from an optometry school*
- *Tick "yes" to OGS*
- *Get more active in your provincial association or college*
- *Go out and speak to a class of students about the benefits of healthy eyes and good vision*
- *Send a few dollars to COETF*
- *Put a smile on before you step into your next exam.*

As we take stock of the past and look towards the future, I am hopeful that our efforts in Optometry will leave a lasting impression. Happy New Year!

« Nous ne saurons pas toujours quelles vies nous aurons touchées et améliorées à la suite de nos soins, parce que les actions peuvent souvent avoir des ramifications imprévues. L'important, c'est de compatir et d'agir. »

— Charlotte Lunsford

Lorsque vous lirez ce numéro de la RCO, j'ose espérer que vous vous réjouirez de l'année qui vient et que vous réfléchirez sur celle qui vient de s'écouler. C'est toujours un bon moment pour faire le point et, lorsqu'on le fait, il est très clair que nos efforts passés ne se définissent pas par qui nous sommes mais bien par ce que nous faisons.

Nous cherchons tous à laisser un héritage

PRESIDENT'S PODIUM
MOT DE LA PRÉSIDENTE

et, sur le plan professionnel, je crois que cet héritage est notre contribution à notre profession et, plus important encore, à la qualité de vie que nous transmettons à nos patients du fait de nos actions.

Chacun de nous a un talent et une compétence uniques à offrir à la société. Si vous n'êtes pas de cet avis, contemplez seulement quelques-uns des ouvrages les plus exceptionnels de notre planète : le Grand Mur, le Colisée, le Parthénon et le Taj Mahal. Ces constructions et une foule d'autres sont époustouflantes, mais j'ignore qui les ont construites. Cela n'enlève rien au fait qu'elles ont été construites et qu'elles représentent des trésors que nous pouvons tous admirer aujourd'hui.

En ciblant nos efforts, nous pouvons tous contribuer à de grandes œuvres qui survivront longtemps après notre départ. Voilà un excellent moment pour se demander : « À quelles grandes œuvres puis-je apporter ma contribution? » Si vous avez besoin d'un petit coup de main, permettez-moi de vous faire quelques suggestions :

- *Joignez les rangs d'un groupe bénévole de services optométriques*
- *Joignez les rangs d'un groupe de services local*
- *Prenez sous votre aile un étudiant en optométrie*
- *Dites « oui » à OGS*
- *Prenez une part plus active aux activités de votre association provinciale ou collège*
- *Prenez la parole devant une classe d'étudiants pour leur exposer les avantages d'une bonne vision et santé oculaire*
- *Envoyez quelques dollars au FFOCE*
- *Arborez un sourire avant votre prochain examen.*

Lorsque nous ferons le point sur le passé et regarderons vers l'avenir, j'ai confiance que nos efforts dans l'optométrie laisseront une impression durable.

Bonne année à tous!

CAO Councillors given token of thanks for valued work

Dr Julia Galatis (left) and Dr Dorrie Morrow.

Dr Julia Galatis, CAO Councillor, New Brunswick Association of Optometrists, from September, 2000 to October, 2006. Dr Galatis served as chair for several CAO Committees including Government Relations, Interprofessional Relations and Legislation Committees. She will continue to serve CAO as our Liaison to CNIB. Dr Galatis is replaced by Dr Lillian Linton, Perth Andover, NB. Plaque presented by Dr Morrow, President, CAO in October, 2006.

Dr Dorrie Morrow (standing) and Dr Jacquelyn Smith.

Dr Jacquelyn Smith, CAO Councillor, Nova Scotia Association of Optometrists, from August, 2004 to July, 2006. Dr Smith served CAO in a variety of capacities including liaison to the Canadian Association of Optometric Students, Canadian Examiners in Optometry and the Canadian Optometric Regulatory Authorities. Dr Smith is replaced by Dr Henry Smit of Truro, Nova Scotia. Plaque presented by Dr Dorrie Morrow, President, CAO in July, 2006.

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CLINICAL DIAGNOSIS

Catherine Chiarelli, OD, FAAO | Vision Institute of Canada

K.N., a six-year-old male was referred by his family optometrist, for further evaluation of esotropia. His parents reported two previous episodes of transient esotropia, the first occurring at age 2 years, for which investigation was non-productive, and the second occurring at age 6 years, 2 weeks after diagnosis and initiation of treatment for Type 1 Diabetes. It was this second episode of sudden onset esotropia that prompted an emergency visit to the family optometrist. A convergence excess pattern esotropia, with magnitude 30pd at near, was found. Cycloplegic refraction revealed mild hyperopia of +2.00D each eye; spectacles were prescribed for full time wear and referral was made for further evaluation and follow-up in six weeks' time.

K.N. presented without glasses, since his physician had advised against spectacle correction, anticipating refractive changes associated with Diabetes. His father reported that, after two months of treatment, stable control of blood sugar had not yet been achieved, and the number and timing of daily insulin injections still was being adjusted. He also reported that the episode of esotropia had lasted one week, and now was resolved. There were no current visual concerns.

Unaided visual acuities were 20/20 right eye, 20/25 left eye at distance and at near. Cover test revealed 4 pd esophoria at distance and constant left esotropia of 12 pd at near. Versions were full and smooth, with no extraocular muscle restrictions. Dynamic retinoscopy revealed a normal lag of accommodation (0.25D). No stereoacuity was appreciated at near. Uncrossed diplopia was reported on the Worth 4 Dot test.

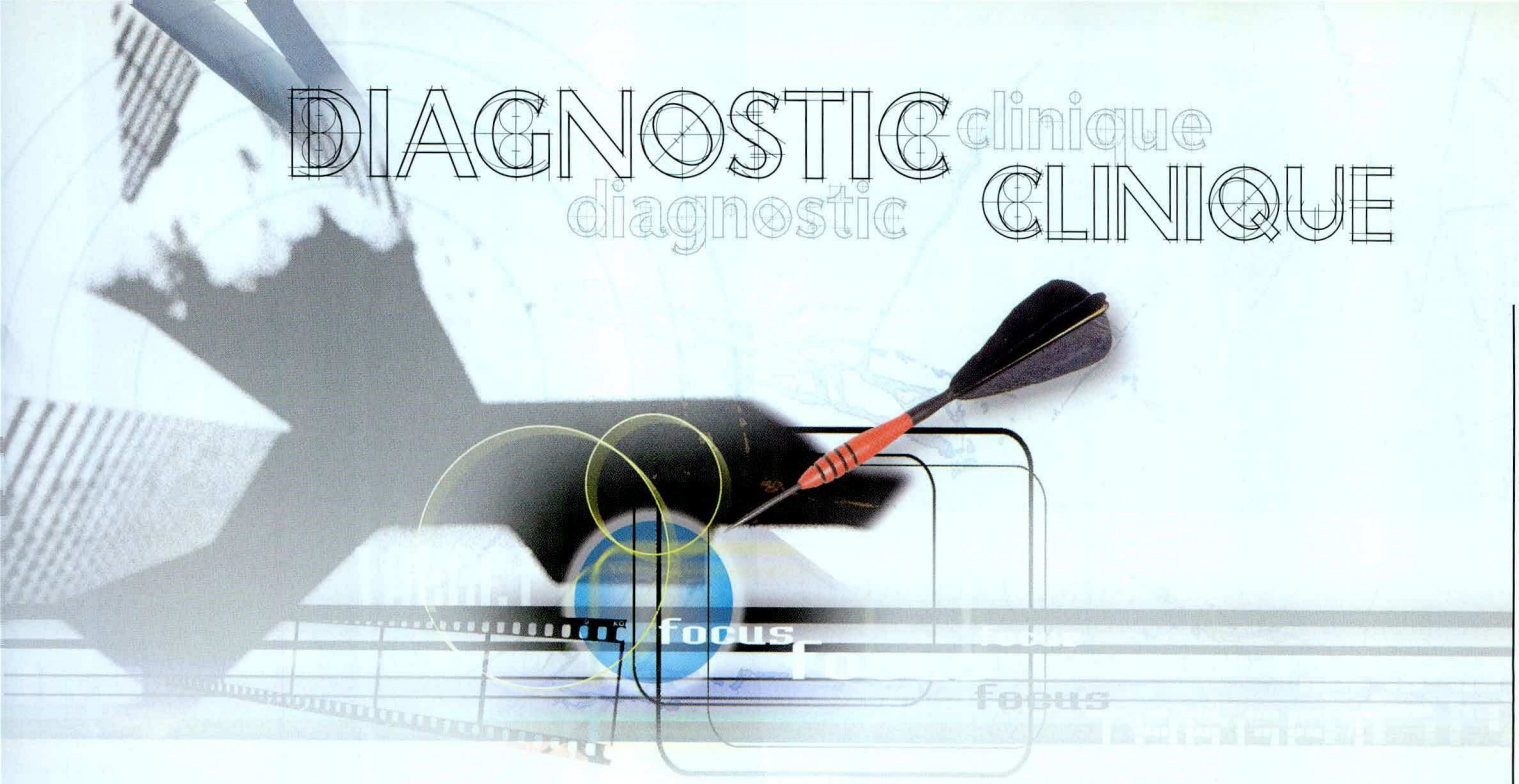
The previous cycloplegic refraction (+2.00D) was demonstrated by trial frame, to determine the effect on vision and ocular alignment. K.N. reported distance blur (20/50 both eyes), but immediately recognized up to 70 seconds of arc stereoacuity at near. Cover test confirmed neutralization of the esotropia at near, through the refractive correction.

Another cycloplegic refraction was conducted, and revealed +1.25D hyperopia in both eyes. Dilated examination of the anterior and posterior segments was unremarkable.

What is the diagnosis?
What treatment is indicated?
What future vision care is required?

(see page 239)

DIAGNOSTIC clinique



K.N., un garçon de six ans, est invité à consulter par son optométriste de famille pour l'examen plus approfondi d'une ésotropie. Ses parents signalent deux épisodes précédents d'ésotropie transitoire, le premier vers l'âge de deux ans pour lequel l'examen n'a rien détecté, et le second à six ans, deux semaines après un diagnostic et un début de traitement pour un diabète de type 1. C'est ce second épisode d'ésotropie soudaine qui a motivé la visite urgente chez l'optométriste de famille. Le diagnostic d'ésotropie par excès de convergene d'une ampleur de 30 dp au près est établi. Une réfraction cyclopégique révèle une légère hypermétropie de +2,00D dans chaque œil. Après avoir prescrit des lunettes à port constant, l'enfant est référé à un autre spécialiste afin de l'examiner à nouveau dans six semaines.

K.N. s'est présenté sans ses lunettes, son médecin déconseillant les lentilles correctrices sous prétexte que le diabète entraînerait des changements de réfraction. Son père nous indique qu'après deux mois de traitement, la glycémie n'est pas encore stabilisée. De plus, ni le nombre, ni le moment des injections d'insuline quotidiennes n'est encore déterminé. Il indique aussi que l'épisode d'ésotropie, maintenant terminé, a duré une semaine et qu'il n'y avait pas de problèmes visuels pour l'instant.

L'acuité visuelle sans correction est de 20/20 pour l'œil droit et de 20/25 pour l'œil gauche de loin et de près. Le test écran indique une ésophorie de 4 dp de loin et une ésotropie continuelle de l'œil gauche de 12 dp de près. Les versions sont complètes et régulières sans restriction des muscles extra-oculaires. La rétinoscopie dynamique indique une latence (lag) normale d'accommodation (0,25D) et aucune stéréoacuité de près. Le test de Worth révèle une diplopie homonyme.

La précédente réfraction cycloplégique (+2,00D) avait été obtenue par des lentilles d'essai afin de déterminer l'effet sur la vision et sur l'alignement oculaire. K.N. signale un flou de loin (20/50 aux deux yeux), mais reconnaît immédiatement de près une stéréoacuité de 70 secondes d'arc. Le test écran confirme la neutralisation de l'ésotropie de près grâce à la correction de l'erreur de réfraction.

Une autre réfraction cycloplégique a révélé une hypermétropie bilatérale de +1,25D. L'examen des segments antérieurs et postérieurs avec pupilles dilatées n'a rien donné de spécial.

Quel est le diagnostic?
Quel est le traitement indiqué?
Quels autres soins visuels seront nécessaires?

(voir la page 239)

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1. Data on file, Bausch & Lomb Incorporated.
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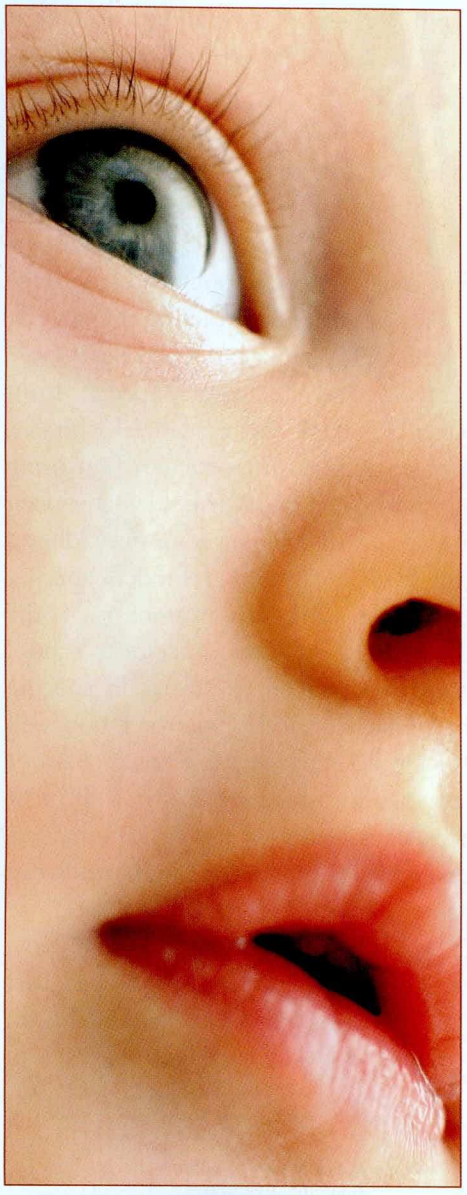
ARTICLE ARTICLE

Who should be taking care of children's eyes?: A survey of a Montréal population

À qui doit incomber la responsabilité de prendre soin de la vision des enfants? : opinions d'une population montréalaise



Abstract

Objectives: The purpose of this study was to survey a population in the Montréal area (Québec, Canada) for its opinion concerning the importance of making children's first eye examinations legally mandatory before the children start school.

Methods: We recruited 290 persons over age 18 years in four different commercial sites in the Greater Montréal area. The interview was based on a six-question form containing forced-choice items. In order to obtain a better measurement of the target population's knowledge, other elements were collected on each participant's age group, gender, income level and parental status.

Results: The Montréal-area population surveyed appeared to favour a legal approach with regard to the first eye exam prior to the start of school, with 70% of respondents in favour of a bill on this topic. For 52.5% of respondents, parents hold the primary responsibility for their children's eye health. The respondents estimated the cost of a child's eye exam at $44.80 (± $28.40); 44.0% of respondents felt that this cost should be borne by the government alone; 43.7% to be shared between parents and RAMQ (Régie de l'assurance-maladie du Québec: Quebec's provincial health care plan). The ideal age for the first exam was considered to be 4.0 (±1.9) years old; 54.9% of respondents would choose optometrists to perform eye exams. These results did not vary with relation to age group, income status or the parental status of the respondents.

Conclusion: The Montréal population surveyed revealed that it was more knowledgeable than expected concerning the importance of a child's first eye examination. Al-

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Key words: family health, children vision, public funding, optometry

Mots clefs: Santé de la famille, vision des enfants, financement public, optométrie.

Disclaimer : *Authors deny any conflict of interest. This is an independent study. Total cost was assumed by Université de Montréal- École d'optométrie.*

though they pointed to parents as those responsible for taking care of their children's eyes, the respondents felt that the government should be involved, both in making the first exam prior to the start of school mandatory and by paying for the professional services rendered to children. By choosing optometrists over ophthalmologists, the target population demonstrated that this profession is now recognized as a first-line provider of children's examinations and ocular health assessments. This finding was unexpected.

Résumé

Buts : Cette étude vise à sonder la population de la région de Montréal (Québec, Canada) sur la vision et les enfants, ainsi que sur la réaction des personnes à rendre obligatoire le premier examen visuel des enfants avant l'entrée à l'école.

Méthodes : 284 personnes âgées de plus de 18 ans ont été interviewées dans 4 sites commerciaux de la grande région de Montréal. Un questionnaire comportant 6 questions à choix forcés a été administré à chaque participant. Dans le but de mieux cerner l'échantillon des personnes interviewées, d'autres éléments pertinents ont été recueillies sur l'âge, le sexe, le revenu et le statut parental de chaque répondant.

Résultats : La population interviewée semble favorable à ce que le gouvernement légifère concernant l'examen visuel avant l'entrée à l'école. En effet, 70% des répondants sont favorables à l'adoption d'une loi en ce sens. Pour plus de la moitié des répondants (52,5%), les parents sont les premiers responsables de la santé de l'enfant. Le coût estimé d'un examen visuel de l'enfant est de $45 (+$28); 44% des répondant estimant que ce coût devrait être payé par le gouvernement seul ou partagé entre l'État et les parents (43,7%). Le premier examen devrait être fait à 4,1 (+1,8) ans, la majorité des personnes interrogées identifiant l'optométriste comme celui le mieux placé pour ce faire. Les résultats ne diffèrent pas selon la location des répondants de même que quant à l'âge, le revenu ou le fait que les répondants soient ou non parents d'enfants.

Conclusion : La population montréalaise démontre une sensibilité plus grande qu'anticipée quant à l'importance de l'examen visuel de l'enfant avant l'entrée à l'école. Bien qu'identifiant les parents comme responsables de la santé des enfants, les répondants pensent que l'État doit s'impliquer en rendant l'examen obligatoire puis en en assument le coût, en tout ou en partie. En désignant l'optométriste et non l'ophtalmologiste comme professionnel à consulter en premier lieu, les personnes interrogées indiquent que l'optométrie est maintenant reconnue comme porte d'entrée en première ligne des soins oculo-visuels.

Introduction

Ever since the state of Kentucky adopted a law in 2000 requiring every child entering public school to undergo a comprehensive eye examination,[1] a number of other North American governments have been solicited by optometric and public health associations[2] to adopt similar legislation. The American Optometric Association[1] and its Canadian counterpart[2] have made a top political priority out of pursuing the adoption of bills in each state or province that recognize the need for every child to obtain a comprehensive oculo-visual examination before the start of school. For these associations, this has become the most important political battle since the fight surrounding the right to prescribe therapeutic pharmaceutical agents (TPAs) to treat ocular diseases..

The government of Canada, in the Speech from the Throne in October 2004 and provincial officials, subsequently, have identified the importance of ensuring that children enter school ready to learn; they have been supporting a number of worthwhile programs. Alberta and more recently British Columbia funded specific programs aimed at increasing the awareness of the importance of the first eye examination prior to school and increasing the vision screening efforts in specific communities. The explicit connection between how well a child sees and how well a child learns, however, has not been fully recognized, addressed or prioritized in most Canadian provinces. It is clearly an unmet need that has fallen somewhere between the federal and provincial public policy jurisdictions.

The AOQ (*L'Association des optométristes du Québec*, Quebec' Association of Optometrists) has stated that one of its major goals is to establish a network of health professionals working with children, and to inform

[1] Consult the American Optometric Association's website www.aoanet.org/x3732.xml, '*AOA endorses bipartisan bill to protect eye health of school children.*

[2] The Children's Vision Initiative was established in 2003 to work towards ensuring that all children in Canada access and receive appropriate, quality eye health and vision care throughout the developmental years. (www.opto.ca/en/public/04_eye_info/04_03_02_vision_initiative.asp).


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1. Christensen M, *et al.* Clinical Evaluation of an HP-guar gellable lubricant eye drop for the relief of dryness of the eye. *Current Eye Research* 2004, Vol.28, No. 1, 55-62. 2. Hartstein I. An open-label evaluation of HP-Guar gellable lubricant eye drops for the improvement of dry eye signs and symptoms in a moderate dry eye adult population. *Current Medical Research and Opinions.* Vol. 21, No. 2, 2005, 255-260.

these professionals on the relative importance of conducting the first eye examination early in life, and to convince the government to adopt a clear health policy favouring such exams for all patients entering school. Consequently, many breakthroughs have been made over the past two years: publications and pamphlets have been distributed in all social public clinics in Quebec communities; professional awareness programs have been conducted within and outside the field of optometry, and a partnership has been established with the INSPQ (*Institut national de santé publique du Québec*: Quebec's national public health institute). Here the collaboration has included the co-publication of a set of recommendations for eye health and ocular examinations in a booklet given out to the parents of all newborns.

The AOQ has also multiplied its contacts with government officials and bureaucrats, although no politician has as yet come out in favour of legislative change in the matter of the first eye examination (hereafter referred to as a FEE). In fact, many consider that, since the Québec's health insurance plan currently covers eye care services provided by optometrists or ophthalmologists for persons aged 0 through 17, the Quebec government should not be obliged to go any further. Although there appears to be agreement that such a public health policy would be good, many argue that any such legislative approach would be challenged in court through the provincial and national Bill of Rights, in an effort to prevent administrative rules from intruding into people's lives. Health choices are a personal responsibility, even when they have huge social impact.

Objectives

Because we are aware of the efforts made by the OAQ to make information available and to raise public awareness about FEEs, our study aimed to measure, in a Montréal-area population, the extent of knowledge on this and other related issues, such as: the amounts of professional fees estimated by the respondents; the ideal age for undergoing a FEE, and the most appropriate professional to consult for a child's ocular health examination.

Hypotheses

Based on interviews of AOQ's officers, relying on non-published surveys, we expected that the public would favour legislative change making FEEs mandatory prior to the start of school. Secondly, we predicted that not only would the government be considered responsible for paying professional fees, but also that ophthalmologists, as medical specialists, would be identified as the most appropriate professionals to consult for comprehensive eye examinations.

Methods

Respondents were randomly selected in four different commercial sites of the greater Montréal area: Site 1 - *Centre Rockland* (in a higher income, English-speaking community); Site 2 - *Carrefour Laval* (in a blue-collar, French-speaking community); Site 3 - *Marché Jean-Talon* (a fashionable area, home to young urban professionals: a French-speaking population), and Site 4 - *Plaza*

TABLE 1 – QUESTIONNAIRE (FRENCH)

1 - Croyez-vous que le gouvernement du Québec doit légiférer quant à l'examen de la vue chez l'enfant?	☐ Oui ☐ Non
2 - Selon vous, à qui revient la responsabilité de la santé visuelle des enfants québécois?	☐ Parent ☐ Gouvernement ☐ Les 2 conjointement
3 - À combien évaluez-vous le prix d'un examen complet de la vue et de la santé oculaire d'un enfant?	
4 - Selon vous, le coût d'un examen de la vue et de la santé oculaire de l'enfant doit être assuré par qui?	☐ Parent ☐ Gouvernement ☐ Les 2 conjointement
5 - À quel âge croyez-vous qu'il est indiqué de faire effectuer un premier examen visuel complet à l'enfant?	
6 - Selon vous, qui est le mieux placé pour évaluer la vision et la santé oculaire d'un enfant?	☐ Infirmière ☐ Ophtalmologiste ☐ Opticien ☐ Optométriste ☐ Pédiatre
Âge :	☐ 18-39ans ☐ 40-64ans ☐ >65ans
Sexe :	☐ F ☐ H
Revenu familial :	☐ 0-25 000$ ☐ 25-50 000$ ☐ 50-100 000$ ☐ >100 000$
Avez-vous des enfants : ☐ oui ☐ non	
SI OUI, avez-vous une garde à temps plein ou partagé? Ont-ils déjà eu un examen de la vue complet en bas âge? ☐ oui ☐ non Qui prend en charge la santé de vos enfants à la maison?	

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ARTICLE

St-Hubert - (a low-income, multi-ethnic neighbourhood, where French and foreign languages are spoken).

The interviewers were optometry undergraduate students, but they did not introduce themselves as this or as having connections with any optometry groups or associations. They presented the questionnaire as part of a school project on public health issues. The interviewers were authorized to answer any questions asked by the respondents in order to clarify the forced choices proposed as answers. Any other details were to be provided following the interview, upon request.

The questionnaire is reproduced in Table 1.

Statistical Analysis

All data were analyzed by the statistics department at the *Université de Montréal.* In most cases, t-tests using SAS 8.2 software were used to establish correlations between results.

Results

A total of 284 respondents were interviewed, of whom 62.0% were female. The average respondent was 39.7 years old. Most respondents (58.1%) were 18 to 39 years old, with the remainder in either the 40 - 64 year-old age group (32.7%) or over 65 (9.2%). Annual family income was distributed among our sample as follows: 21.8% earning 0 - $25,000; 33.8% between $25,000 and $50,000; 29.2% between $50,000 and $100,000 and 11.6% earning over $100,000. Ten persons did not answer this question and were discarded from our analysis. A majority (57.7%) of our population were parents; 41.9% had no children.

This population of respondents was not selected to match closely the total population in the areas where interviews were conducted. Table 2 to 5 illustrate the variation of answers by location. Since there is no statistical difference among our 4 groups of respondents, the results are considered as a whole.

Most of the respondents (70.1%) stated that they would like the Québec government to pass legislation making the first eye exam mandatory prior to the start of school. They felt that the ideal age for starting this process is 4.1 (± 1.8) years old. A slight majority of respondents (52.5%) considered that children's ocular

TABLE 2 – RESULTS TO THE QUESTIONNAIRE BY LOCATION

	Question 1		Question 2			Question 4			Question 6		
	Yes	No	Parents	Gov.	Both	Parents	Gov.	Both	Ophth	OD	MD
Total % of respondents	70.1	29.9	52.5	1.8	45.8	12.3	44.0	43.7	28.2	54.9	11.3
Laval	67.4	32.6	47.8	4.3	47.8	4.3	39.1	56.5	13.0	73.9	6.5
Rockland	73.8	26.2	51.5	1.9	46.6	10.7	51.5	37.9	32.0	52.4	12.6
Jean-Talon	66.7	33.3	56.6	1.0	42.4	17.2	37.4	45.5	29.3	49.5	14.1
St-Hubert	72.2	27.8	50.0	0.0	50.0	13.9	47.2	38.9	33.3	52.8	5.6

Question 1: Do you believe the Quebec government should legislate mandatory children's eye examinations ?
Question 2: Who should take the responsibility of the young Quebeckers eye health?
Question 4: Who should pay for the complete eye examination of a child ?
Question 6: Based on your knowledge, identify who is the most appropriate professional to consult for the first eye examination of a child ?

TABLE 3 – ESTIMATED MOMENT (AGE) AND VALUE OF THE FIRST CHILDREN EYE EXAMINATION

	Examination (average) in dollars ($)	Std dev (+)	$ Median value	Ideal age of the 1st exam (average) in years	Std dev (+)	Age Median value
Total	45	28	40	4.1	1.8	4.0
Laval	41	20	40	4.2	1.8	4.0
Rockland	47	31	50	4.3	1.9	5.0
Jean-Talon	46	30	40	4.0	1.9	4.0
St-Hubert	42	27	40	3.7	1.5	4.0

TABLE 4: DEMOGRAPHICS OF THE SAMPLE BY LOCATION

	Age			Sex		Familial Income $			
	18 - 39	40 - 64	65 +	F	M	0 - 25,000	25 to 50,000	50 to 100,000	> 100,000
*Total % of respondents	58.1	32.7	9.2	62.0	37.0	21.8	33.8	29.2	11.6
Laval (46)	80.4	15.2	4.3	65.2	32.6	17.4	39.1	23.9	15.2
Rockland (103)	63.1	32.0	4.9	65.0	34.0	16.5	26.2	33.0	20.4
Jean-Talon (99)	38.4	45.5	16.2	55.6	44.4	23.2	36.4	32.3	4.0
St-Hubert (36)	69.4	22.2	8.3	66.7	33.3	38.9	41.7	16.7	2.8

* Number of respondents is indicated after the location (x)

TABLE 5 - CHILDREN'S BACKGROUND OF THE RESPONDENTS BY LOCATION

	Have Children		Children have had eye examination		Key person for health issues		
	Yes	No	Yes	No	Mother	Father	Both
*Total % of respondents							
Laval	65.2	32.6	66.7	33.3	60.3	0.0	39.7
Rockland	61.2	38.8	61.9	38.1	63.5	0.0	36.5
Jean-Talon	54.5	45.5	77.8	22.2	70.4	1.7	27.9
St-Hubert	47.2	52.8	47.1	52.9	82.4	0.0	17.6

health is the parents' responsibility only, while 45.8% of those surveyed felt that it is a responsibility to be shared with the government. Moreover, 1.8% of respondents stated that they would leave the entire responsibility in the hands of public administration.

Optometrists were the professionals preferred by 54.9% of the respondents for conducting a child's first complete eye exam (vision and ocular health); ophthalmologists were second on the list (28.2%), followed by pediatricians (11.3%), opticians (4.2%) and nurses (1.4%).

As for professional fees, we found a similarly split position, with 44% of respondents feeling that exam costs should be assumed by the government; 43.7% were open to a form of cooperative payment by parents and the government. Only 12.3% felt that the entire payment should fall to the parents alone. On average, the respondents estimated the cost for an eye examination at $45 CAN (± $28).

DISCUSSION

Our sample of population was not selected to match closely the total population in the areas where interviews were conducted. However, if we consider the demographics (Table 4), we realize that the average respondent is a female, between 18-39, living with a moderate income of $25-50000/year. Many communication analysts would confirm that this is exactly the target for health issues in Canada, since such individuals are considered as the key persons in that matter. This is confirmed by our results (Table 5) where mothers are considered the most important person to decide for health/ocular issues in the family. Therefore, we can estimate that our findings are relevant to the reality of low to middle-class families living in the Montreal area.

A look at Québec's demographics data and RAMQ statistics for the last year available (2003) reveals that 15,999 complete examinations that were performed on patients aged 0 to 4 were claimed by optometrists.[3] This represents 4.2% of the estimated Québec population within the 0-4 age group. During the same time period, ophthalmologists saw 23,500 patients aged 0-4 (6.1%). It was not possible to correlate the number of patients from the first group who may have been referred by optometrists to ophthalmologists for evaluation and treatment (for strabismus, for example). However, our fair estimate of the population of children examined before entering school is one out of ten (10%). By

comparison, 14% of all Canadian children below six years of age receive professional eye care.[4] Undetected and untreated vision problems interfere with a child's ability to learn at school [5-6] and to participate fully in sports and other childhood activities. Visual impairment in children is associated with developmental delays and the need for special education, vocational and social services, which are often prolonged beyond childhood and into adulthood.[6-7]

In a recent pilot study conducted in Alberta[4], 45% of eligible children (453 children out of 1000) were examined, compared to 14% of eligible children in situations where no awareness campaign had been directed at parents. In that study, parents were first contacted by mail. A document explained the importance to get a complete eye exam for their children and to fill in an appointment with their family optometrist. A phone re-call was made 3 months later if the children did not bring back to the school nurse the results of the ocular evaluation. Published results indicated that 12% of the 453 children examined had vision or eye health problems that would have affected learning either moderately or significantly. A higher percentage of vision problems were found in specific groups of at-risk children (genetically predisposed children, of aboriginal people, children suffering from known neurological or systemic diseases that could have an impact on vision/ ocular health).

It is well documented that ten percent of all preschoolers have vision deficiencies and that this percentage increases to 25% for children in Grades K-6. The incidence of vision problems is much higher in children at risk. For example, The Harvard Graduate School of Education hosted a conference in April, 2001, where it was demonstrated that 53% of children of families living in poverty have uncorrected vision problems that interfere with learning and reading activities[8]. Another source stated that 70% of juvenile delinquents have undercorrected visual problems[9]. Aboriginal children have a significantly higher incidence of refractive error. With the increasing prevalence of diabetes within the Aboriginal population, ocular manifestations (i.e. diabetic retinopathy), are a growing concern. Diabetic retinopathy has been identified as the leading cause of vision loss in Aboriginal people.

On the basis of the abovementioned pilot's success, the Alberta government has strongly recommended that all school boards in the province implement the program, but the Alberta government has not provided the additional funding needed to start these projects.

Our results indicate that, at the very least, the Montréal-area population we surveyed favours government involvement in the form of legislation making a FEE mandatory for each child. Respondents identifying co-responsibility between parents and government in this matter were more prone to ask for legislation (88.5%) than were the 55% who felt that the responsibility lies solely with parents. This finding is statistically significant ($p < 0.05$). We were interested to note, from the comments made during the interview, that most respondents favoured government involvement because they felt that many parents are negligent or do not assume proper responsibility for their children's health.

Should the government be concerned by the impact such a policy would have on the budget? Perhaps, if we take into account the fact that this measure would inject more than 150,000 new patients into the system, at an estimated cost of $7 million CAN. We all know that new money is hard to find for public services, but governments should consider that 43.7% of respondents are ready to share the cost of these FEEs. Shared responsibility and shared funding seem to be rationales that are endorsed by the population surveyed.

Other significant findings include the fact that people without children estimated the cost of an eye exam as more expensive ($50 ± $33 CAN) than parents did ($41 ± $24 CAN) ($p < 0.05$). This issue had been presented as an open question: no monetary range had been suggested. Surprisingly, there was no correlation between income level and the costs estimated by respondents, whose estimate, on average, was similar to the actual cost charged by Quebec optometrists for a complete exam ($45.00), based on OAQ data.

Government responsibility should include a public awareness campaign. Two elements need consideration here. Firstly, there is the ideal time for bringing a child to an eye care professional: respondents stated that this was four years of age. Four years old is late, however, compared with the recommendations made by AOQ or public health associations[2,10] (6 months

for an ocular health exam and 2 to 4 years for the first complete eye exam, yearly after). This gap could be filled if an appropriate message were targeted to the audience concerned, especially if such a message came from a public/government authority. Secondly, the fact that a large number of ophthalmologists rather than optometrists are consulted for primary care examinations could be viewed as inefficient spending in health services. Information sent to the patients might also address this issue. This could provide one way of reallocating money within the system, so that children's needs can be addressed more efficiently.

We did not identify significant differences in any other aspects of our survey. No other elements showed differences based on gender, income, interview site or age of respondent. No correlation was made with other elements of our survey.

Conclusion

This study allowed us to ask the question "Who should be taking care of children's eyes?" of a population in the Montréal area. The answer they gave was quite clear: such care is seen as a shared responsibility between parents and government, the latter being involved primarily in funding, but also in taking action with regard to negligent parents by forcing them to provide FEEs for their preschool-age children. On this position, we found no difference with respect to respondents' age, gender, or site location.

This study also showed that, for the target population, optometrists were the first professionals chosen for conducting complete ocular health examinations. This may be seen as a new trend, compared to the data available for 2003 from the *Régie de l'assurance-maladie du Québec*. On the other hand, the optometrists' and public health association's message has not been heard, since respondents viewed 4 years of age as the ideal time to send a child to his or her first eye examination, rather than at 6 months and 3 years of age. Professional associations, public health organizations and governments must continue their efforts to change this attitude. Better knowledge and a joint effort to reach the target population can be rewarding: the Alberta experience is a particularly good example to follow and to keep as an inspiration.

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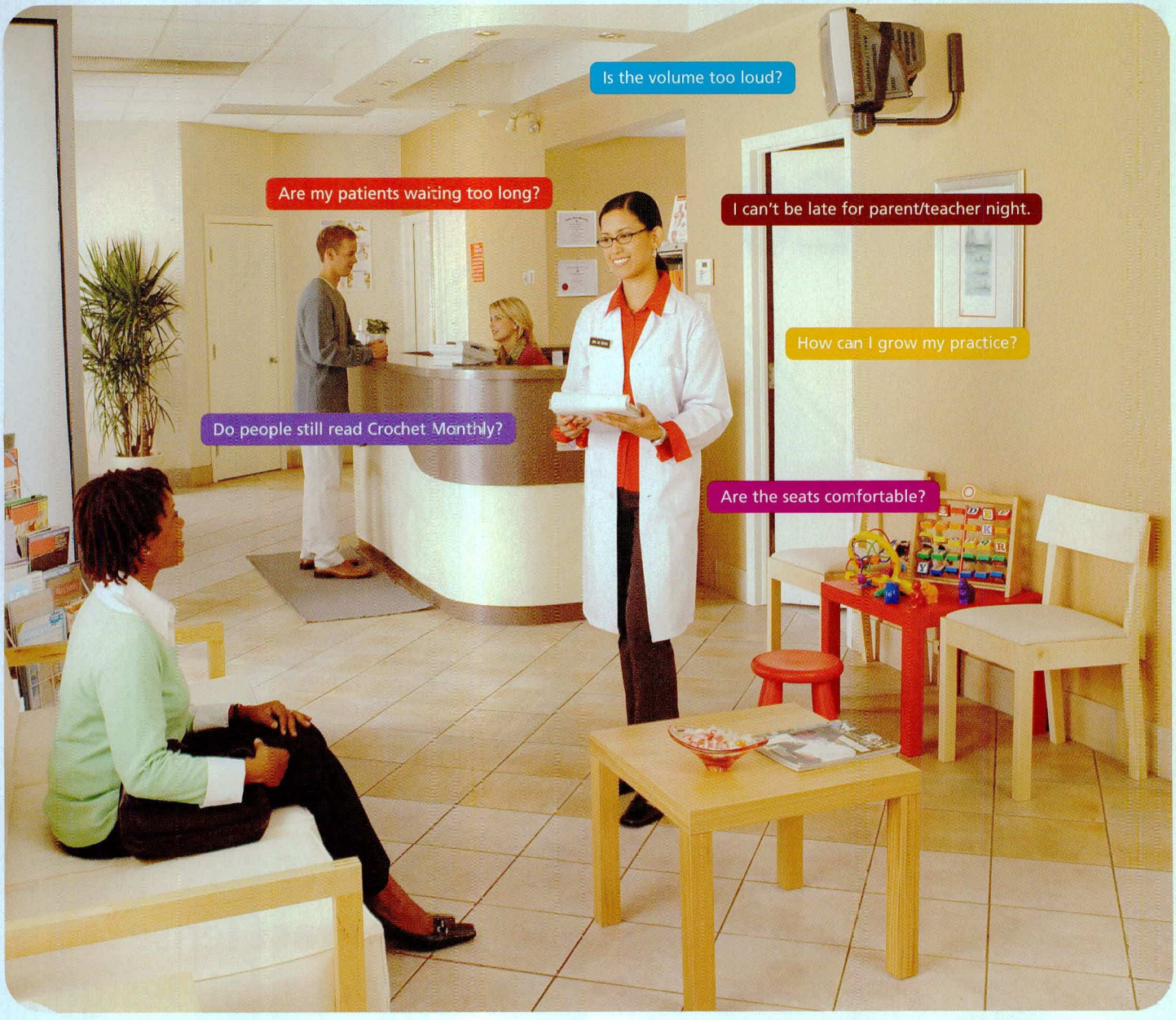

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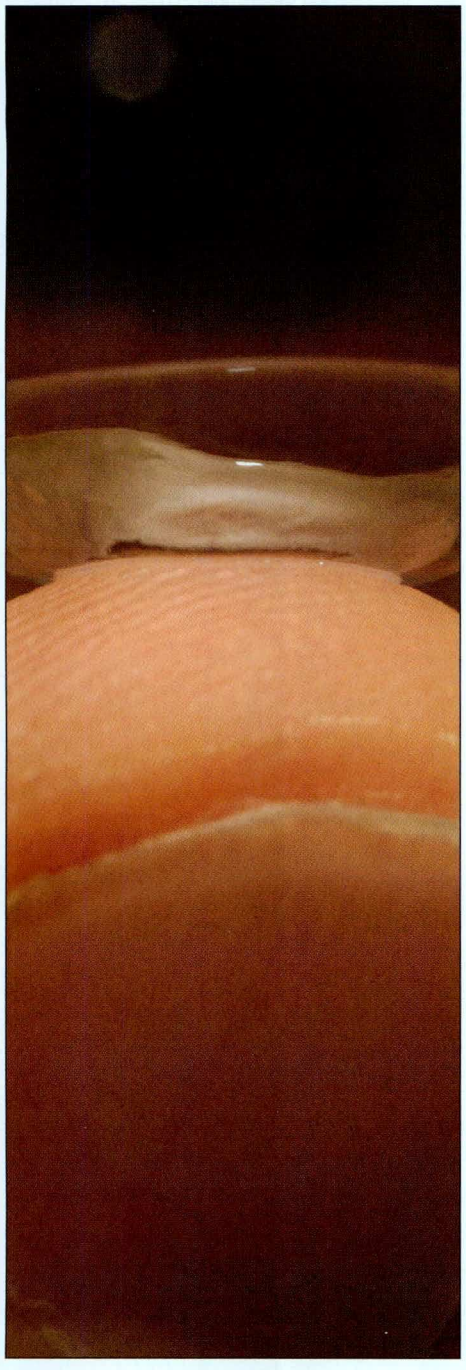
Contact Lens Prescribing in Canada 2006

Prescription de lentilles cornéennes au Canada en 2006



Abstract

A questionnaire was used to identify current preferences for contact lens prescribing in Canada. Practitioners were asked to submit information on the first ten patients fitted with contact lenses immediately after receipt of the survey; 151 completed questionnaires were returned, detailing contact lens fits to 1,421 patients. The results indicated that of the patients fitted with contact lenses, the majority were prescribed soft lenses. The preferred modality was monthly planned replacement. Over 80% of the soft lens fits were with either silicone hydrogel or mid-water content materials, with an even split between the two material options. Of the rigid lens fits the majority were for daily wear. The overnight wear of rigid lenses appears to be for the practice of orthokeratology. Practitioners are recommending multipurpose solutions for the majority of their soft lens patients (91%).

Résumé

On a utilisé un questionnaire pour déterminer les préférences actuelles dans la prescription de lentilles cornéennes au Canada. On a demandé aux praticiens de fournir des renseignements sur les dix premiers patients ayant reçu des lentilles cornéennes à la suite de la réception de ce questionnaire; 151 questionnaires ont été renvoyés, fournissant des détails sur les lentilles cornéennes prescrites à 1 421 patients. Les résultats indiquent que la majorité des lentilles cornéennes prescrites étaient des lentilles souples. La modalité préférée était le remplacement mensuel. Plus de 80 % des lentilles cornéennes souples étaient faites soit d'hydrogel de silicone ou d'une teneur aqueuse d'environ 50 % avec un choix égal entre les deux options. La majorité des lentilles rigides étaient à port quotidien. Les lentilles rigides portées la nuit semblent l'être à des fins d'orthokératologie. Les praticiens recommandent des solutions polyvalentes à la plupart de leurs patients ayant des lentilles cornéennes souples (91 %).

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Mots clés : Souples.
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prescription de lentilles
cornéennes

ARTICLE

Introduction

Canadian practitioners have participated in a contact lens fitting survey over the past seven years, the results of which have been published as part of an international review.[1-6] This is the first time the results from this Canadian fitting survey have been published in isolation.

Around the world, manufacturers often hold data on contact lens markets, which can be commercially sensitive and is usually not made publicly available. For practitioners, a helpful approach is to understand prescribing trends from colleagues at a national level, as this allows for individual prescribing habits to be benchmarked against a peer group.

Methods

Morgan et al[1-6] have been collecting data on the fitting habits of Canadian practitioners for seven years and report these as part of an international survey. The same approach was used in this study. Each questionnaire requested some basic background information about the practitioner completing the questionnaire and then solicited generic (unbranded) information about the first ten patients fitted with contact lenses after receipt. Data about each lens fit fell into the following categories: date, age and gender of patient, new fit or refit, lens material, lens design, lens replacement frequency, wearing modality and care system prescribed.

In January 2006, 1000 survey forms were mailed to a proportional selection of practitioners in each province. This paper reports on this fitting survey.

When analysed, a system of weighting was employed to better reflect the nature of lens prescribing. This weighting was based on the contact lens activity of the respondents, as determined from the dates provided on the questionnaire. Thus, a practitioner completing all ten fits in one day was afforded a higher activity weighting than a colleague taking eight weeks to complete ten fits.

Assuming that there are 200 days per year when a practitioner could fit contact lenses, data from the practitioner who fitted all 10 patients in one day carried more weight (200/1) than the practitioner who fitted one patient in the three month time period (200/90). Effectively the data was annualised, an analysis method used in previous studies.[7]

Results

Demographics and background information

The response rate of the practitioners surveyed was 15.1%. Their years of experience fitting contact lenses ranged from 6 months to 41 years, with an average experience of 14.3yrs (±10.3yrs). The demographic data for the 1,421 patients fit are shown in Table 1.

TABLE 1: DEMOGRAPHIC DATA FOR PATIENTS FIT WITH CONTACT LENSES.

PATIENT AGE	31.3 ± 13.9
AGE RANGE	8 to 79 yrs
FEMALE : MALE FITS	957 : 464 (2:1)

New fits versus refits

Practitioners were asked to identify new fits or refits: a new fit - a person presenting who had not worn lenses before or with a significant time period without lens wear; and refit - a person who presented needing to have their contact lenses changed. Of the fits reported in this survey 35.0% were new fits and 65.0% were refits. The break down between new and refits for all of the fits reported is shown in Figure 1. Patients presenting for a routine follow up visit or to collect their next supply of planned replacement contact lenses were not recorded in this survey.

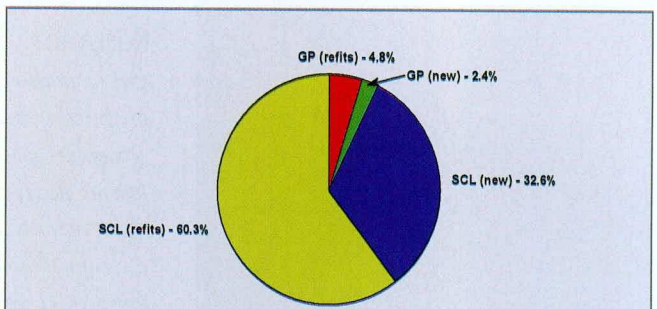
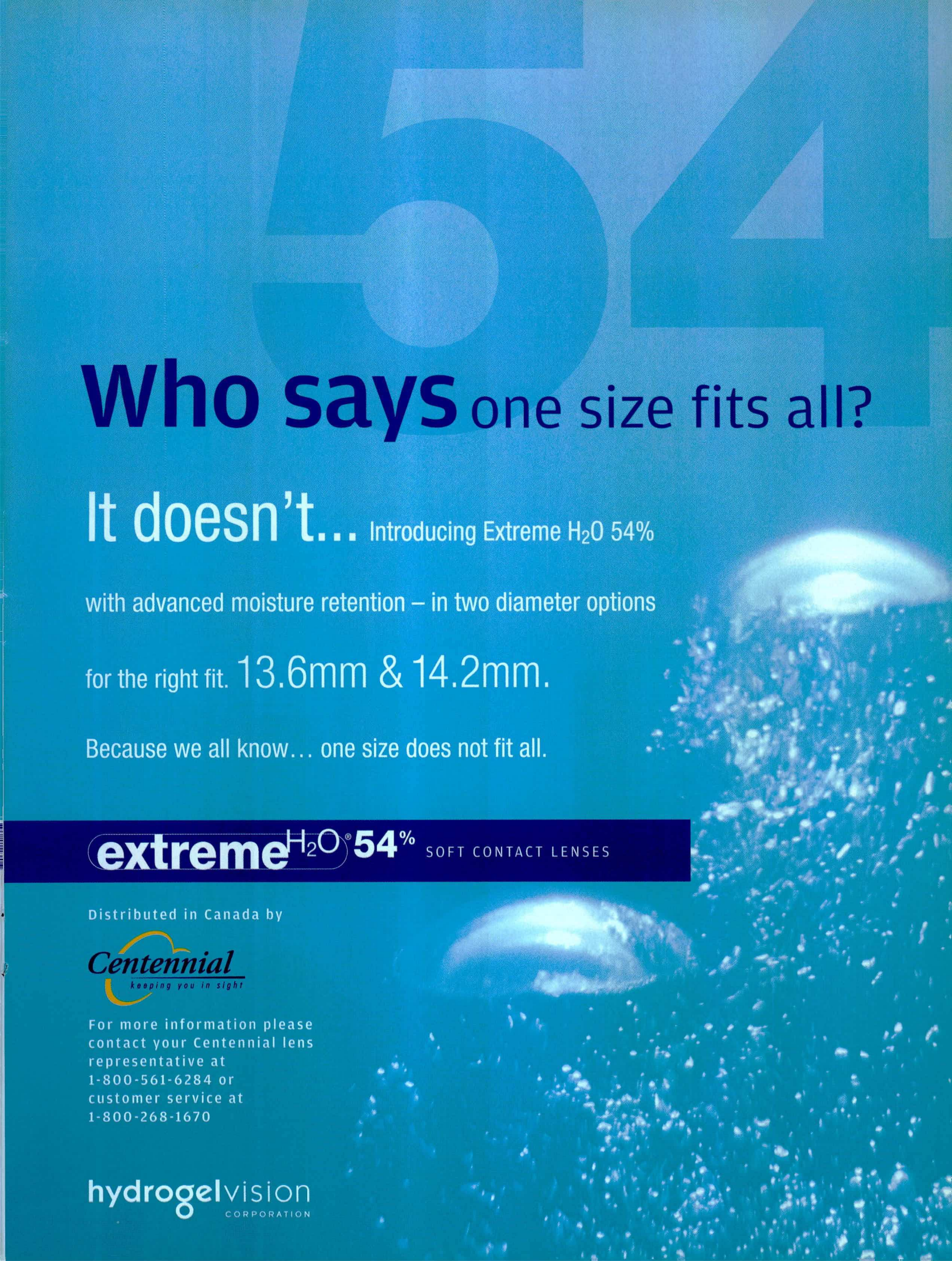


Figure 1: Proportion of contact lens fits, new versus refits.

Soft lenses

The majority of patients were fit with soft lenses (92.9%). Of the soft lenses fitted the material of choice was evenly distributed between mid-water lenses (41.8%) and silicone hydrogel materials (39.8%), Figure 2. For patients who were being refit with lenses the proportion being prescribed silicone hydrogel lenses was higher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than those who were being fit for the first time (47.6% versus 33.8%), Figure 3. This shift results in fewer refits being with high and mid water content lenses than new fits. The preferred replacement modality is monthly planned replacement (71%); the distribution of replacement frequencies can be seen in Figure 4. As could be anticipated, the largest proportion of soft lens wearers was fit with spherical lenses (59.5%). Interestingly more multifocal lenses were fit than cosmetic tints. Figure 5.

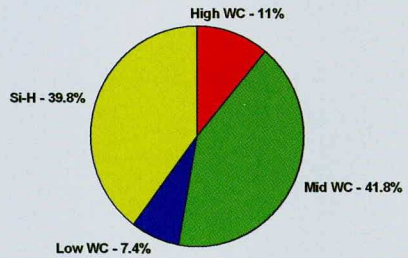


Figure 2: Distribution of materials prescribed for all fits of soft contact lenses.

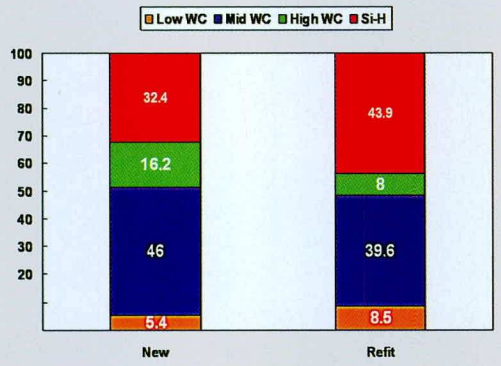


Figure 3: Proportion of soft lens materials for daily wear, new versus refits.

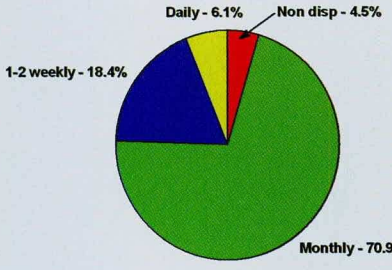


Figure 4: Distribution of replacement frequencies prescribed for all fits of soft contact lenses.

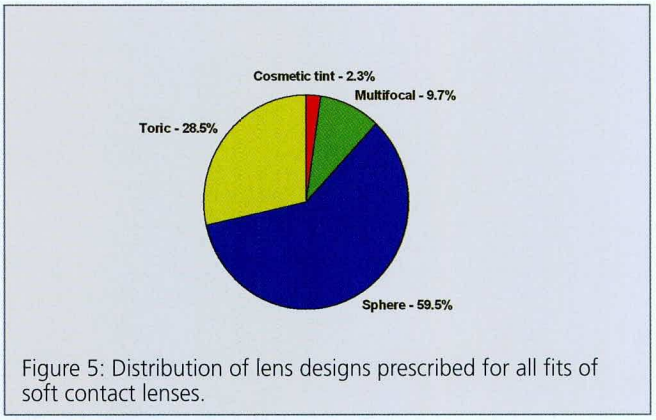


Figure 5: Distribution of lens designs prescribed for all fits of soft contact lenses.

Soft lens care systems

For fits where solutions were expected to be prescribed, ie daily wear soft lenses excluding daily disposables, practitioners prescribed multipurpose disinfecting solutions for the majority of their soft lens patients. The proportions for silicone hydrogel and non-silicone hydrogel were slightly different with more patients being given hydrogen peroxide solutions if they were wearing silicone hydrogel compared to non-silicone hydrogel lenses Figure 6 & 7.

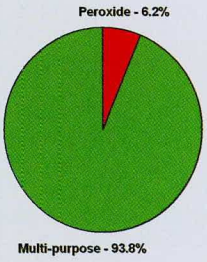


Figure 6: Distribution of lens care systems prescribed for all soft lens fits, except silicone hydrogel lenses.

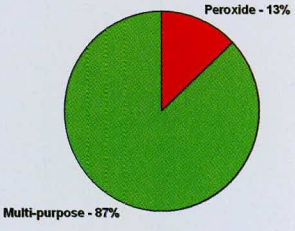


Figure 7: Distribution of lens care systems prescribed for silicone hydrogel lenses only.

ARTICLE

Daily versus extended wear

Practitioners continue to fit the majority of their patients with lenses to be worn on a daily wear basis. Compared to the new fits, twice as many of the refits were for extended wear, the proportions still being small for both groups (4.8% and 10.0% respectively), Figure 8.

Of the extended wear soft fits the majority were utilising silicone hydrogel lens materials (96.2%) as seen in Figure 9.

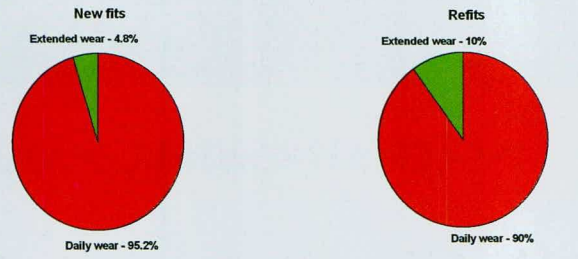


Figure 8: Proportion of lenses prescribed for daily or extended wear by new or refit for all lenses.

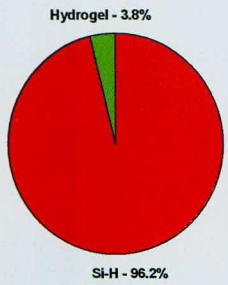


Figure 9: Proportion of extended wear lenses that were prescribed with silicone hydrogel lenses or hydrogel lenses.

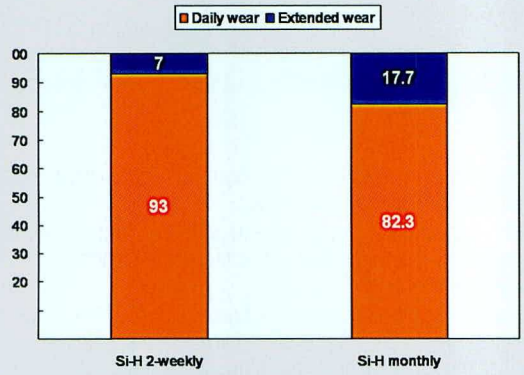


Figure 10: Distribution of extended wear between 2 weekly and monthly replacement silicone hydrogel soft lenses.

Silicone hydrogel materials

Silicone hydrogel lenses are prescribed on a monthly or two weekly planned replacement basis. As identified previously, when soft lenses are prescribed for overnight wear silicone hydrogel materials were chosen. The majority of overnight silicone hydrogel lenses were prescribed on a monthly planned replacement basis, Figure 10.

Rigid lenses

Predictably, rigid lenses were fit for a wider variety of designs than soft lenses. Almost 36% of the rigid lenses fit were for orthokeratology. Toric and multifocals made up 22% of the total number of fits with a relatively small 31.5% being spherical lenses, Figure 11. High permeability materials were preferred for the majority of patients (50.3%). A small percentage of patients were fit with low Dk materials (12.8%), Figure 12.

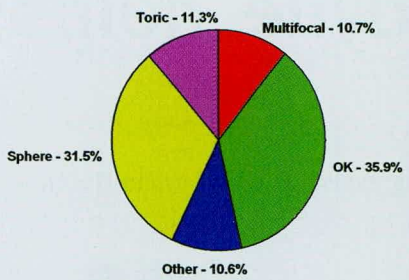


Figure 11: Distribution for GP lenses of the various lens designs fit.

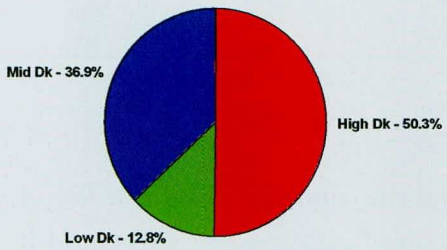


Figure 12: Distribution for use of the different rigid lens materials.

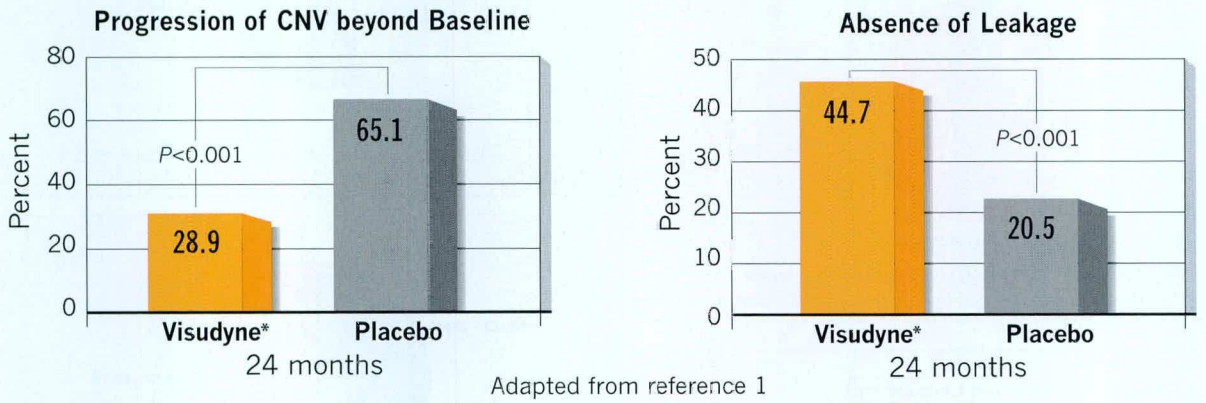
Discussion

It would appear that contact lens practitioners have embraced the evidence that more oxygen is better and that soft lenses should be replaced regularly. Silicone Hydrogel and mid to high water content soft lens materials account for 89% of all of the soft lenses fitted.

THE WORLD IS BEAUTIFUL > TO LOOK AT

Pr Visudyne* helps restrict lesion growth[1†]

- Impact of Visudyne* (verteporfin for injection) on Predominantly Classic CNV:



Adapted from reference 1

- At 24 months, significantly fewer Visudyne* patients with predominantly classic CNV had progression of classic CNV compared to placebo[1]

Visudyne* Therapy is indicated for the treatment of age-related macular degeneration, pathologic myopia and presumed ocular histoplasmosis in patients with predominantly classic subfoveal choroidal neovascularization.

VISUDYNE* is a drug to be used in Visudyne* Therapy. Visudyne* Therapy is a two-stage process requiring administration of both verteporfin for injection and non-thermal red light.

CAUTION: Visudyne* Therapy should only be used by physicians trained in the treatment of age-related macular degeneration and pathologic myopia using photodynamic therapy with verteporfin for injection and specified lasers. Following VISUDYNE* injection, residual photosensitivity for 48 hours or more may result in erythema and blistering of the skin when exposed to sunlight or brightly focused indoor light.

VISUDYNE* is contraindicated for patients with porphyria or a known hypersensitivity to any component of this preparation, and in patients with severe hepatic impairment.

Severe vision decrease, equivalent of 4 lines or more, within 7 days has been reported in 1 – 4% of patients. At least partial recovery, defined as more than one line improvement of vision following the event, occurred in most patients (approximately 75% of patients). Safety and efficacy beyond 2 years have not been established.

† Treatment of AMD with PDT. n=609. Combined results from two multicentre, randomized, parallel group, Phase III studies of subfoveal choroidal neovascularization secondary to age-related macular degeneration using photodynamic therapy with verteporfin compared to placebo. Avg. number of treatments: Year 1=3.4, Year 2=2.1 Safety and efficacy beyond 2 years have not been established.

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See prescribing information for references.

Visudyne verteporfin for injection

VIS-051114E

Silicone hydrogels were originally marketed as monthly replacement extended wear lenses, and accounted for a relatively small proportion of the contact lens market., Recently, new silicone hydrogel products have been introduced that are designed for daily wear on either a monthly or a two weekly planned replacement basis. These products have been accepted by the optometric profession as a very viable option for their patients. The higher proportion of silicone hydrogel lenses being used for refit compared to new fits implies that this material is also being used to address problems that patients may be experiencing.

There are still patients wearing conventional soft lenses for which the replacement is dictated by performance and clinician recommendation rather than a pre-determined replacement cycle. This is most likely due to that fact that for some patients planned replacement may not be an option because of parameter availability. Despite a prediction that rigid lenses would be obsolete by 2010 rigid gas permeable lenses still hold a share of the contact lens market.[8] There are patients for whom rigid lenses are the only option, for example, patients with keratoconus. Orthokeratology also continues to support the gas permeable lens market and has become a popular alternative to other forms of refractive correction in recent years.

Conclusion

Practitioners in Canada prescribe mainly soft lenses that are replaced on a monthly basis with materials of choice appearing to be either mid water content or silicone hydrogel materials. The mode of wear of choice is daily wear. More patients are refit into extended wear than patients who have this option for the first time (new fit). Monthly replacement silicone hydrogel lenses are preferred for extended wear, with two weekly replacement being preferred for daily wear. Multi-purpose solutions are clearly the care regimen of choice for the majority of clinicians. There is still a place in the market for rigid gas permeable contact lenses.

Acknowledgments

The authors would like to thank all the practitioners who received the survey and chose to respond.

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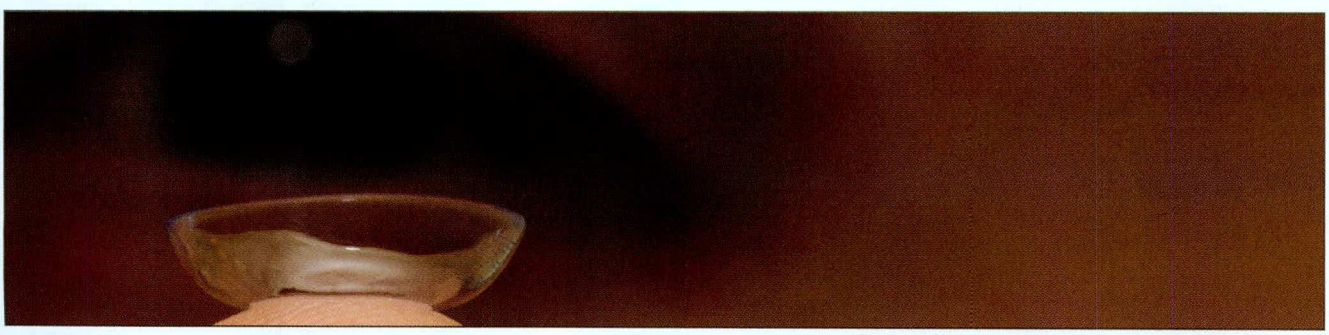

Pr Visudyne*
verteporfin for injection

PRESCRIBING INFORMATION (September 2004)

PrVisudyne* Verteporfin for Injection for Intravenous Use

PHOTOSENSITIZING AGENT FOR AGE-RELATED MACULAR DEGENERATION, PATHOLOGIC MYOPIA AND PRESUMED OCULAR HISTOPLASMOSIS

VISUDYNE* (verteporfin) is a drug to be used in Visudyne* Therapy. Visudyne* Therapy is a two-stage process requiring administration of both verteporfin for injection and nonthermal red light.

CAUTION: Visudyne* Therapy should only be used by physicians trained in the treatment of age-related macular degeneration and pathologic myopia using photodynamic therapy with verteporfin for injection and specified lasers. Following VISUDYNE* injection, residual photosensitivity for 48 hours or more may result in erythema and blistering of the skin when exposed to sunlight or brightly focused indoor light.

INDICATIONS AND CLINICAL USE Visudyne* Therapy is indicated for the treatment of age-related macular degeneration, pathologic myopia and presumed ocular histoplasmosis in patients with predominantly classic subfoveal choroidal neovascularization.

CONTRAINDICATIONS VISUDYNE* (verteporfin) is contraindicated for patients with porphyria or a known hypersensitivity to any component of this preparation, and in patients with severe hepatic impairment.

WARNINGS Following injection with VISUDYNE* (verteporfin), care should be taken to avoid exposure of skin or eyes to direct sunlight or bright indoor light for 2 days. In the event of extravasation during infusion, the extravasation area must be thoroughly protected from direct light until the swelling and discoloration have faded in order to prevent the occurrence of a local burn which could be severe. If emergency surgery is necessary within 48 hours after treatment, as much of the internal tissue as possible should be protected from intense light. Patients who experience severe decrease of vision of 4 lines or more within 1 week after treatment should not be retreated, at least until their vision completely recovers to pretreatment levels and the potential benefits and risks of subsequent treatment are carefully considered by the treating physician.

Caution should be exercised when Visudyne* Treatment under general anesthesia is considered (See PRECAUTIONS).

Use of incompatible lasers that do not provide the required characteristics of light for the photoactivation of VISUDYNE* could result in incomplete treatment due to partial photoactivation of VISUDYNE*, overtreatment due to overactivation of VISUDYNE*, or damage to surrounding normal tissue.

Pregnancy TERATOGENIC EFFECTS There are no adequate and well-controlled studies in pregnant women. VISUDYNE* should be used during pregnancy only if the benefit justifies the potential risk to the fetus. Rat fetuses of dams administered verteporfin for injection intravenously at ≥10 mg/kg/day during organogenesis (approximately 40-fold the human exposure at 6 mg/m^2 based on AUC_{inf} in female rats) exhibit an increase in the incidence of anophthalmia/microphthalmia. Rat fetuses of dams administered 25 mg/kg/day (approximately 125-fold the human exposure at 6 mg/m^2 based on AUC_{inf} in female rats) had an increased incidence of wavy ribs and fetal alterations. In pregnant rabbits, a decrease in body weight gain and food consumption was observed in animals that received verteporfin for injection intravenously at 10 mg/kg/day during organogenesis. The no observed adverse effect level (NOAEL) for maternal toxicity was 3 mg/kg/day (approximately 7-fold the human exposure at 6 g/m^2 based on body surface area). There were no teratogenic effects observed in rabbits at doses up to 10 mg/kg/day.

Nursing Mothers Verteporfin and its diacid metabolite have been found in the breast milk of one woman after a 6 mg/m^2 infusion. The verteporfin breast milk levels were up to 66% of the corresponding plasma levels. Verteporfin was undetectable after 12 hours. The diacid metabolite had lower peak concentrations but persisted up to at least 48 hours. Because the effects of verteporfin and its metabolite on neonates are unknown, either nursing should be interrupted or treatment postponed, taking into account the risks of delayed treatment to the mother. Women should not nurse for 96 hours after Visudyne* Therapy.

Pediatric Use Safety and effectiveness in pediatric patients have not been established.

PRECAUTIONS

General Extravasation of VISUDYNE*, especially if the affected area is exposed to light, can cause severe pain, inflammation, swelling or discoloration at the injection site. The relief of pain may require analgesic treatment.

Standard precautions should be taken during infusion of VISUDYNE* (verteporfin) to avoid extravasation. Examples of standard precautions include, but are not limited to:

- A free-flowing intravenous (IV) line should be established before starting VISUDYNE* infusion and the line should be carefully monitored.
- Due to the possible fragility of vein walls of some elderly patients, it is strongly recommended that the largest arm vein possible, preferably antecubital, be used for injection.
- Small veins in the back of the hand should be avoided.

If extravasation does occur, the infusion should be stopped immediately. The extravasation area must be thoroughly protected from direct light until the swelling and discoloration have faded in order to prevent the occurrence of a local burn which could be severe. Cold compresses should be applied to the injection site (see Warnings).

Visudyne* Therapy should be considered carefully in patients with moderate hepatic impairment or biliary obstruction since there is no clinical experience with verteporfin in such patients.

Chest pain, vaso-vagal reactions and hypersensitivity reactions, which on rare occasion can be severe, have been reported. Both vaso-vagal and hypersensitivity reactions are associated with general symptoms such as syncope, sweating, dizziness, rash, dyspnea, flushing, and changes in blood pressure and heart rate.

There is no clinical data related to the use of VISUDYNE* in anesthetized patients. At a >10-fold higher dose given by bolus injection to sedated or anesthetized pigs, verteporfin caused severe hemodynamic effects, including death, probably as a result of complement activation. These effects were diminished or abolished by pretreatment with antihistamine and they were not seen in conscious non-sedated pigs or in any other species, whether conscious or under general anesthesia. Caution should be exercised when Visudyne* Treatment under general anesthesia is considered (see WARNINGS).

VISUDYNE* at >5 times the expected maximum plasma concentration in treated patients caused a low level of complement activation in human blood in vitro. VISUDYNE* resulted in a concentration-dependent increase in complement activation in human blood in vitro. At 10 µg/ml (approximately 5 times the expected plasma concentration in human patients), there was mild to moderate complement activation. At ≥ 100 µg/mL, there was significant complement activation. Signs (chest pain, syncope, dyspnea, and flushing) consistent with complement activation have been observed in < 1% of patients administered VISUDYNE*. Patients should be supervised during VISUDYNE* infusion.

Photosensitivity Patients who receive VISUDYNE will become temporarily photosensitive for 2 days after the infusion. During that period, patients should avoid exposure of unprotected skin, eyes or other body organs to direct sunlight or bright indoor light. This includes, but is not limited to, tanning salons, bright halogen lighting and high power lighting used in surgical operating rooms or dental offices (see Warnings). Prolonged exposure to light from light emitting medical devices such as pulse oximeters should also be avoided for 48 hours following VISUDYNE* administration. If treated patients must go outdoors in daylight during the first 2 days after treatment, they should protect all parts of their skin and their eyes by wearing protective clothing and dark sunglasses. UV sunscreens are not effective in protecting against photosensitivity reactions because photoactivation of the residual drug in the skin can be caused by visible light. Patients should not stay in the dark and should be encouraged to expose their skin to ambient indoor light, as it will help inactivate the drug in the skin through a process called photobleaching.

Drug Interactions Drug interaction studies in humans have not been conducted with VISUDYNE*. Verteporfin is rapidly eliminated by the liver, mainly as unchanged drug. Metabolism is limited and occurs by liver and plasma esterases. Microsomal cytochrome P450 does not appear to play a role in verteporfin metabolism. Based on the mechanism of action of verteporfin, many drugs used concomitantly could influence the effect of Visudyne Therapy. Possible examples include the following. Calcium channel blockers, polymyxin B or radiation therapy could enhance the rate of VISUDYNE* uptake by the vascular endothelium. Other photosensitizing agents (e.g., tetracyclines, sulfonamides, phenothiazines, sulfonylurea hypoglycemic agents, thiazide diuretics and griseofulvin) could increase the potential for skin photosensitivity reactions. Compounds that quench active oxygen species or scavenge radicals, such as dimethyl sulfoxide, b-carotene, ethanol, formate and mannitol, would be expected to decrease VISUDYNE* activity. Drugs that decrease clotting, vasoconstriction or platelet aggregation, e.g., thromboxane A_2 inhibitors, could also decrease the efficacy of Visudyne Therapy.

Carcinogenesis, Mutagenesis, Impairment of Fertility No studies have been conducted to evaluate the carcinogenic potential of verteporfin. Verteporfin was not mutagenic, in the absence or presence of light, when studied in microbial mutagenicity, unscheduled DNA synthesis, mammalian point mutation, chromosome aberration, and mouse micronucleus assays.

Photodynamic therapy (PDT) as a class has been reported to result in DNA damage including DNA strand breaks, alkali-labile sites, DNA degradation, and DNA-protein cross links which may result in chromosomal aberrations, sister chromatid exchanges (SCE), and mutations. In addition, other photodynamic therapeutic agents have been shown to increase the incidence of SCE in Chinese hamster ovary (CHO) cells irradiated with visible light and in Chinese hamster lung fibroblasts irradiated with near UV light, increase mutations and DNA-protein cross-linking in mouse L5178 cells, and increase DNA-strand breaks in malignant human cervical carcinoma cells, but not in normal cells. Verteporfin was not evaluated in these latter systems. It is not known how the potential for DNA damage with PDT agents translates into human risk.

No effect on male or female reproduction has been observed in rats following intravenous administration of verteporfin for injection up to 10 mg/kg/day (approximately 60- and 40-fold human exposure at 6 mg/m^2 based on AUC_{inf} in male and female rats, respectively). Males were dosed 28 days prior to and during mating until necropsy (approximately 60 days). Females were dosed for 14 days prior to and during mating until Gestation Day 7.

Geriatric Use Approximately 90% of the patients treated with VISUDYNE* in the clinical efficacy trials were over the age of 65. A reduced treatment effect was seen with increasing age.

Fluorescein Angiography Standard precautions for fluorescein angiography should be observed. Certain medical conditions (such as pregnancy or allergy to fluorescein) may make the injection of fluorescein dye for a particular patient inadvisable in the opinion of the ophthalmologist. Approximately 1/225,000 patients may experience a severe reaction resulting in a heart attack, stroke, or death. Most reactions are mild, such as temporary nausea or vomiting in a few patients and a rash, hives, or wheezing in about 1%.

Effects on ability to drive and use machines Following Visudyne* Therapy, patients may develop transient visual disturbances such as abnormal vision, vision decrease, or visual field defects that may interfere with their ability to drive or use machines. Patients should be advised to not drive or use machines as long as these symptoms persist.

ADVERSE REACTIONS In randomized clinical trials in choroidal neovascularization, mainly in patients with age-related macular degeneration (AMD), the most frequently reported adverse events to VISUDYNE* (verteporfin) are injection site reactions (including pain, edema, inflammation, extravasation, rashes, and less commonly, hemorrhage and discoloration) and visual disturbances (including blurred vision, flashes of light, decreased visual acuity and visual field defects such as grey or dark haloes, scotoma and black spots). These events occurred in approximately 10-30% of patients. The following events, listed by Body System, occurred in 1-10% of patients:

Ocular Treatment Site: Blepharitis, cataracts, conjunctivitis/conjunctival injection, dry eyes, ocular itching, severe vision decrease with or without subretinal or vitreous hemorrhage

Body as a Whole:	Asthenia, infusion related pain primarily presenting as back pain, fever, flu syndrome, photosensitivity reactions.
Cardiovascular:	Atrial fibrillation, hypertension, peripheral vascular disorder, varicose veins
Dermatologic:	Eczema
Digestive:	Constipation, nausea
Hemic and Lymphatic:	Anemia, white blood cell count decreased, white blood cell count increased
Hepatic:	Elevated liver function tests
Metabolic/Nutritional:	Albuminuria, creatinine increased
Musculoskeletal:	Arthralgia, arthrosis, myasthenia
Nervous System:	Hypesthesia, sleep disorder, vertigo
Respiratory:	Cough, pharyngitis, pneumonia
Special Senses:	Cataracts, decreased hearing, diplopia, lacrimation disorder
Urogenital:	Prostatic disorder

Severe vision decrease, equivalent of 4 lines or more, within 7 days has been reported in 1-4% of patients. At least partial recovery of vision, defined as more than one line improvement of vision following the event, occurred in most patients (approximately 75% of patients).

Photosensitivity reactions usually occurred in the form of skin sunburn following exposure to sunlight during the first 2 days after treatment usually within 24 hours of VISUDYNE* infusion. The higher incidence of back pain in the VISUDYNE* group occurred primarily during infusion and was not associated with any evidence of hemolysis or allergic reaction and usually resolved by the end of the infusion.

The following adverse events have occurred either at low incidence (<1%) during clinical trials or have been reported during the use of VISUDYNE* in clinical practice where these events were reported voluntarily from a population of unknown size and hence the frequency of occurrence cannot be determined precisely. They have been chosen for inclusion based on factors such as seriousness, frequency of reporting, possible causal connection to VISUDYNE*, or a combination of these factors:

Ocular Treatment Site: Retinal detachment (nonrhegmatogenous), retinal or choroidal vessel nonperfusion, severe vision decrease with retinal hemorrhage.

Nonocular Events: Chest and back pain (which may radiate to other areas including but not limited to pelvis, shoulder, girdle or rib cage) and other musculoskeletal pain during infusion.

Vaso-vagal and hypersensitivity reactions can occur, which on rare occasions can be severe. General symptoms can include headache, malaise, syncope, sweating, dizziness, rash, urticaria, pruritus, dyspnea, flushing and changes in blood pressure or heart rate.

Adverse reactions reported in treated eyes in patients with pathologic myopia or presumed ocular histoplasmosis were similar to those reported in AMD patients.

SYMPTOMS AND TREATMENT OF OVERDOSAGE Overdose of drug and/or light in the treated eye may result in nonperfusion of normal retinal vessels with the possibility of severe decrease in vision that could be permanent. An overdose of drug will also result in the prolongation of the period during which the patient remains photosensitive to bright light. In such cases, it is recommended to extend the photosensitivity precautions for a time proportional to the overdose.

DOSAGE AND ADMINISTRATION A course of Visudyne* Therapy is a two-step process requiring administration of both drug and light. The first step is the intravenous infusion of VISUDYNE* (verteporfin). The second step is the activation of VISUDYNE* with light from a nonthermal diode laser. The physician should re-evaluate the patient every 3 months and if choroidal neovascular leakage is detected on fluorescein angiography, therapy should be repeated.

Lesion Size Determination The greatest linear dimension (GLD) of the lesion is estimated by fluorescein angiography and color fundus photography. All classic and occult CNV, blood and/or blocked fluorescence, and any serous detachments of the retinal pigment epithelium should be included for this measurement. Fundus cameras with magnification within the range of 2.4-2.6X are recommended. The GLD of the lesion on the fluorescein angiogram must be corrected for the magnification of the fundus camera to obtain the GLD of the lesion on the retina.

Spot Size Determination The treatment spot size should be 1000 microns larger than the GLD of the lesion on the retina to allow a 500 micron border, ensuring full coverage of the lesion. The maximum spot size used in the clinical trials was 6400 microns. The nasal edge of the treatment spot must be positioned at least 200 microns from the temporal edge of the optic disc, even if this will result in lack of photoactivation of CNV within 200 microns of the optic nerve. For treatment of lesions that are larger than the maximum treatment spot size, apply the light to the greatest possible area of active lesion.

VISUDYNE* Administration VISUDYNE* should be reconstituted according to the directions given under PHARMACEUTICAL INFORMATION, Reconstitution. The volume of reconstituted VISUDYNE* required to achieve the desired dose of 6 mg/m^2 body surface area is withdrawn from the vial and diluted with 5% Dextrose for Injection to a total infusion volume of 30 mL. The full infusion volume is administered intravenously over 10 minutes at a rate of 3 mL/minute, using an appropriate syringe pump and in-line filter. The clinical studies were conducted using a standard infusion line filter of 1.2 microns. Precautions should be taken to prevent extravasation at the injection site. If extravasation occurs, protect the site from light (see Precautions).

Light Administration Initiate 689 nm wavelength laser light delivery to the patient 15 minutes after the start of the 10-minute infusion with VISUDYNE*. Photoactivation of VISUDYNE* is controlled by the total light dose delivered. In the treatment of choroidal neovascularization, the recommended light dose is 50 J/cm^2 of neovascular lesion administered at an intensity of 600 mW/cm^2 . This dose is administered over 83 seconds. Light dose, light intensity, ophthalmic lens magnification factor and zoom lens setting are important parameters for the appropriate delivery of light to the predetermined treatment spot. Follow the laser system manuals for procedure set up and operation. The laser system must be acceptable for the delivery of a stable power output at a wavelength of 689±3 nm. Light is delivered to the retina as a single circular spot via a fiber optic and a slit lamp, using a suitable ophthalmic magnification lens. The following laser systems have been tested for compatibility with VISUDYNE* and are acceptable for the delivery of a stable power output at a wavelength of 689±3 nm:

Lumenis Opal Photoactivator laser console and modified LaserLink adapter, Manufactured by Lumenis, Inc., Santa Clara, CA

Zeiss VISULAS 690s laser and VISULINK PDT adapter, Manufactured by Carl Zeiss, Inc., Thornwood, NY.

Concurrent Bilateral Treatment The controlled trials only allowed treatment of one eye per patient. In patients who present with eligible lesions in both eyes, physicians should evaluate the potential benefits and risks of treating both eyes concurrently. If the patient has already received previous Visudyne* Therapy in one eye with an acceptable safety profile, both eyes can be treated concurrently after a single administration of VISUDYNE*. The more aggressive lesion should be treated first, at 15 minutes after the start of infusion. Immediately at the end of light application to the first eye, the laser settings should be adjusted to introduce the treatment parameters for the second eye, with the same light dose and intensity as for the first eye, starting no later than 20 minutes from the start of infusion. In patients who present for the first time with eligible lesions in both eyes without prior Visudyne* Therapy, it is prudent to treat only one eye (the most aggressive lesion) at the first course. One week after the first course, if no significant safety issues were identified, the second eye can be treated using the same treatment regimen after a second VISUDYNE* infusion. Approximately 3 months later, both eyes can be evaluated and concurrent treatment following a new VISUDYNE* infusion can be started if both lesions still show evidence of leakage.

AVAILABILITY OF DOSAGE FORMS VISUDYNE* (verteporfin) is supplied in a single-use glass vial with a gray bromobutyl stopper and aluminium flip-off cap. It contains a lyophilized cake with 15 mg verteporfin. The product is intended for intravenous injection only.

Product monograph available upon request. September 2004.

QLT Inc. Vancouver Canada V5T 4T5

Co-developed and distributed by:

NOVARTIS OPHTHALMICS

Novartis Ophthalmics, Novartis Pharmaceuticals Canada Inc. Mississauga, ON L5N 2X7

* Visudyne is a registered trademark

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VIS-051114

Hyperopic Shift with Accommodative Esotropia

from page 216

A review of K.N.'s refractive history suggests that a hyperopic shift occurred in association with the initiation of insulin treatment of Type 1 Diabetes. This has been documented by several investigators 1,2,3 who report transient hyperopia of 0.5D to 4.9D, peaking at 6-10 days after the start of treatment, and fully resolving over 14-94 days. The hyperopic shift is dependent on plasma glucose concentration, and results from water influx, swelling and a reduction in the refractive index of the crystalline lens.

Hyperopia in children stimulates an increase in accommodation, with corresponding accommodative-convergence. In cases of a high AC/A ratio, significant nearpoint esophoria or esotropia may result. K.N. demonstrated a high AC/A ratio of 9-10, and the accommodative demand of even 2.00D of hyperopia resulted in a large angle accommodative esotropia at near. Reduced hyperopia (to +1.25D) was associated with reduced magnitude of accommodative esotropia at near. This reduced esotropia was not cosmetically obvious, and his parents assumed that the eye turn had resolved.

Persistent esotropia at near represents a risk for the development of diplopia / asthenopia, attention and concentration difficulties, reading or writing delays and even amblyopia. Early treatment is essential, to prevent long-term vision and learning impairments. Standard treatment of accommodative esotropia is with single vision glasses or bifocals. However, K.N.'s hyperopia and esotropia were unstable, and were expected to improve further with better control of blood sugar. In the absence of amblyopia or nearpoint symptoms, it was deemed acceptable to delay treatment for a short time. In this case, follow-up in one month was advised.

Ongoing regular vision care for children with Type 1 Diabetes is essential. Early diagnosis and management of treatable vision disorders (strabismus, amblyopia, refractive error, etc.) is important, since there is increased risk of vision loss over time, due to diabetic eye disease. Diabetic retinopathy rarely occurs before age 9 years; after this, contributing factors include poor metabolic control of blood sugar, duration of Diabetes over 8 years and hormonal changes associated with puberty.4 Long-term follow-up studies report diabetic retinopathy in 80% of patients with Type 1 Diabetes for 13 years, and in 100% of patients after 20 years.5 A minimum of annual eye examinations is recommended

Déplacement hypermétropique avec ésotropie accommodative

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Un examen des tests de réfraction de K.N. indique que le déplacement hypermétropique est survenu au début du traitement à l'insuline du diabète de type 1. Cela est documenté par plusieurs chercheurs1,2,3 qui signalent une hypermétropie transitoire de 0,5D à 4,9D, se stabilisant de 6 à 10 jours après le début du traitement. Cette hypermétropie disparaît complètement entre 14 et 94 jours. Le déplacement hypermétropique dépend du taux de glucose dans le sang et est causé par une entrée d'eau, un œdème et une réduction de l'indice de réfraction du cristallin.

L'hypermétropie chez les enfants stimule une augmentation de l'accommodation accompagnée d'une convergence accommodative correspondante. Une ésotropie ou ésophorie importante au près peut survenir dans les cas d'un rapport AC/A élevé. K.N. présentait un rapport AC/A élevé de 9-10. La demande accommodative de 2,00D d'hypermétropie a suffi à entraîner une ésotropie accommodative à grand angle au près. L'hypermétropie réduite (de +1,25D) est associée à une ésotropie accommodative de moindre ampleur au près. Cette ésotropie réduite n'était pas évidente et ses parents ont supposé que le strabisme était réglé.

En cas d'ésotropie persistante au près, une diplopie / asthénopie, des difficultés d'attention et de concentration, des retards de lecture ou d'écriture et une

amblyopie risquent d'apparaître. Un traitement précoce est essentiel pour prévenir les problèmes à long terme de vision et d'apprentissage. Le traitement classique de l'ésotropie accommodative se fait à l'aide de lunettes régulières ou bifocales. Toutefois, l'hypermétropie et l'ésotropie de K.N. étaient instables et il était prévisible qu'elles s'amélioreraient avec un meilleur contrôle de la glycémie. Compte tenu de l'absence d'amblyopie ou de symptômes au près, il a été convenu de retarder le traitement et de faire un suivi un mois plus tard.

Des soins réguliers et suivis de la vision sont essentiels pour les enfants souffrant de diabète de type 1. Le diagnostic et la gestion précoces de troubles de la vision traitables (strabisme, amblyopie, erreur de réfraction, etc.) sont importants, car il y a un risque accru de perte de la vision au fil du temps à cause des troubles oculaires causés par le diabète. La rétinopathie survient rarement avant l'âge de neuf ans; par la suite, les facteurs de risque comprennent un mauvais contrôle métabolique de la glycémie, une période de plus de huit ans depuis le diagnostic et les changements hormonaux survenant à la puberté4. Les études complémentaires à long terme indiquent que la rétinopathie diabétique survient chez 80 % des personnes atteintes de diabète de type 1 depuis 13 ans et chez tous les patients qui en souffrent depuis 20 ans5. Il faut recommander au moins un examen annuel de la vue à ces patients.

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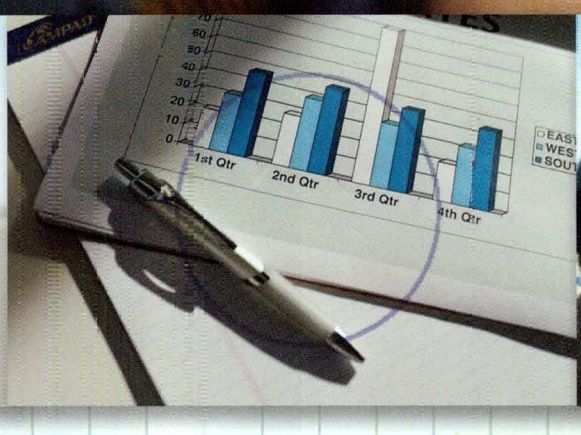

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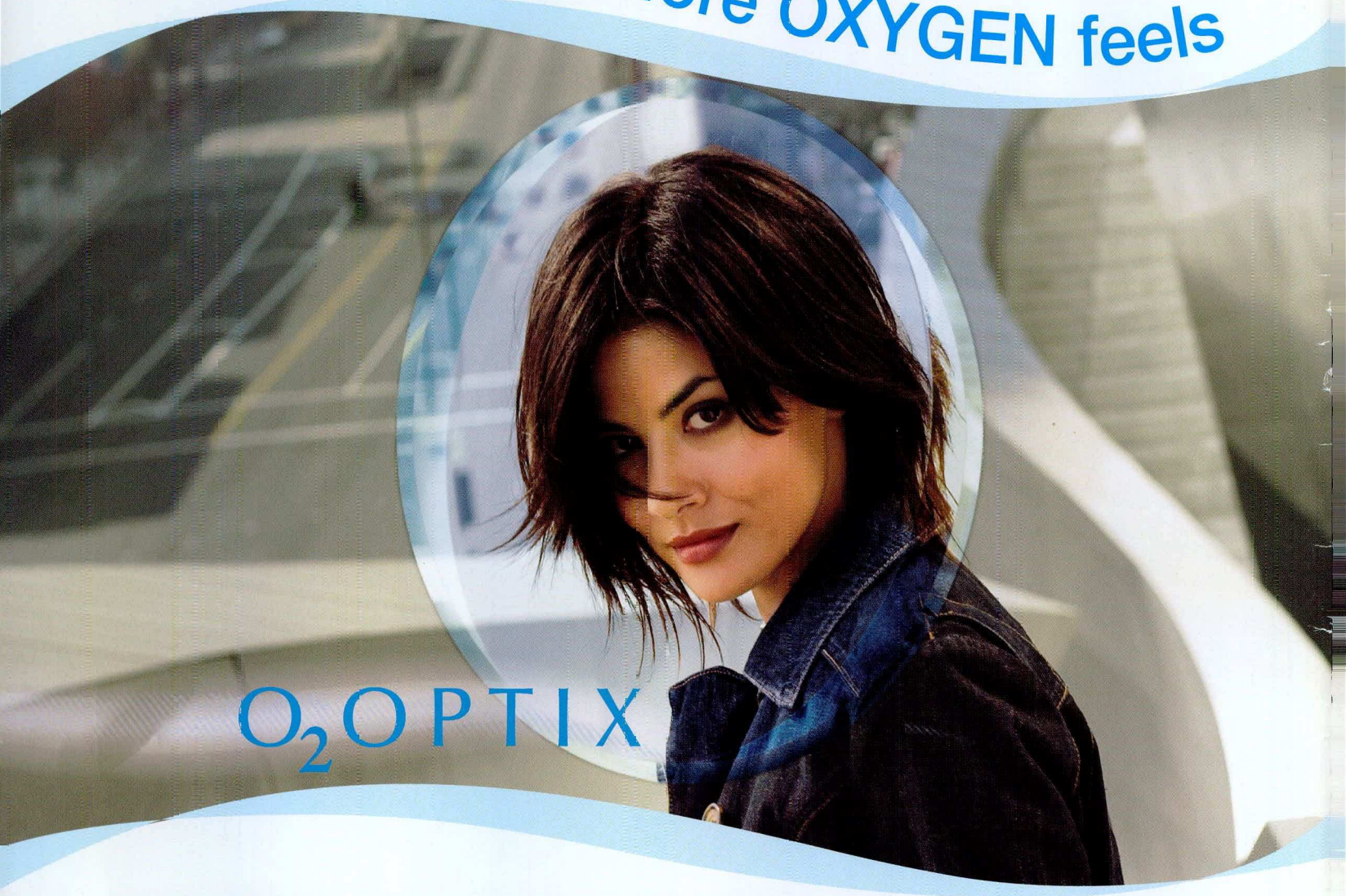

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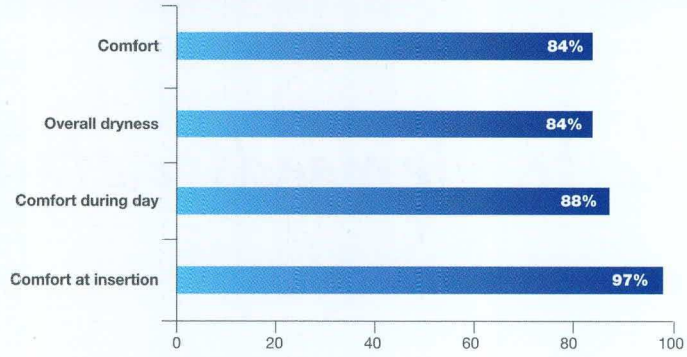

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