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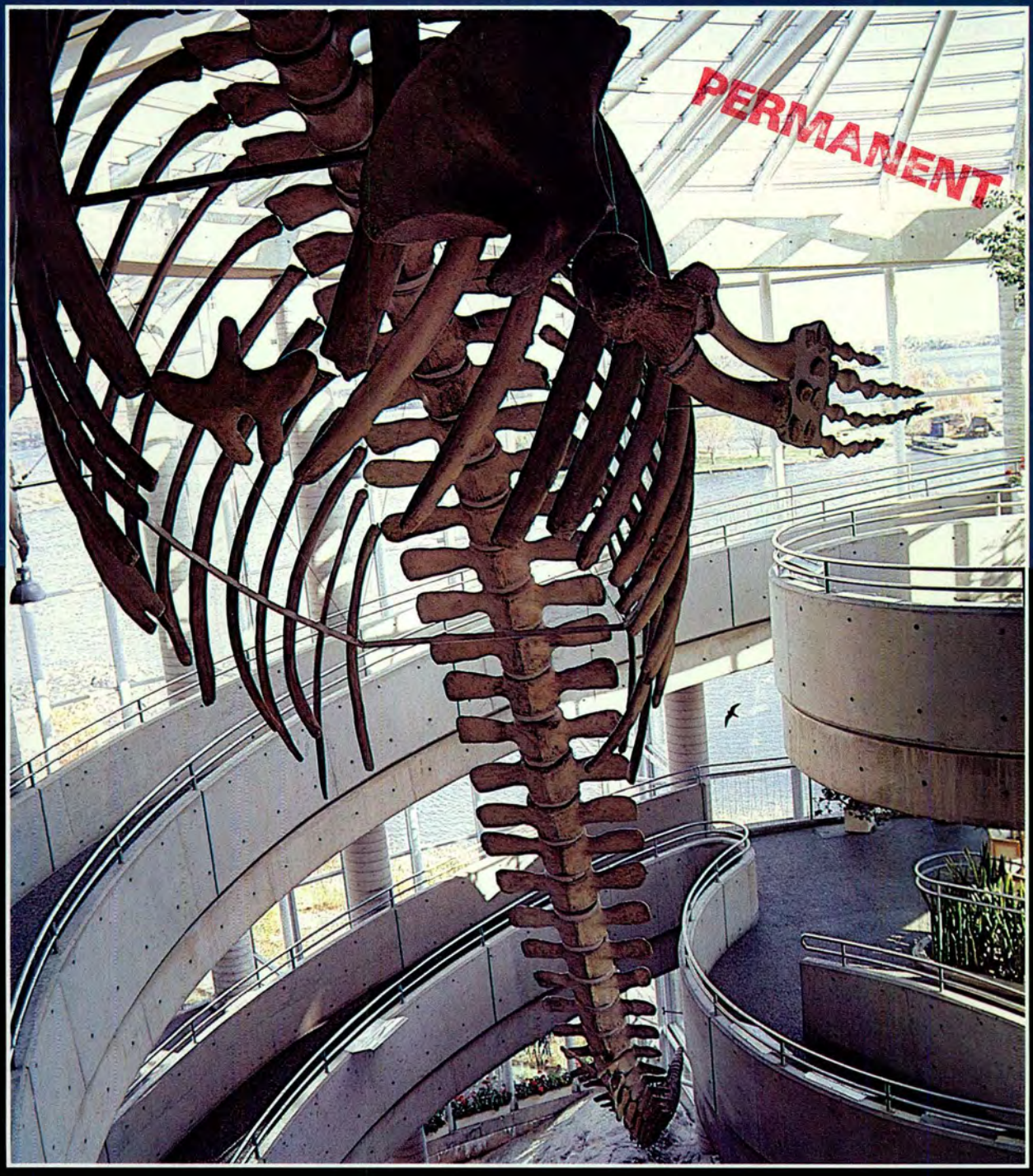

In this issue: Uniform requirements for manuscripts

Ci-inclus : Exigences uniformes pour les manuscrits

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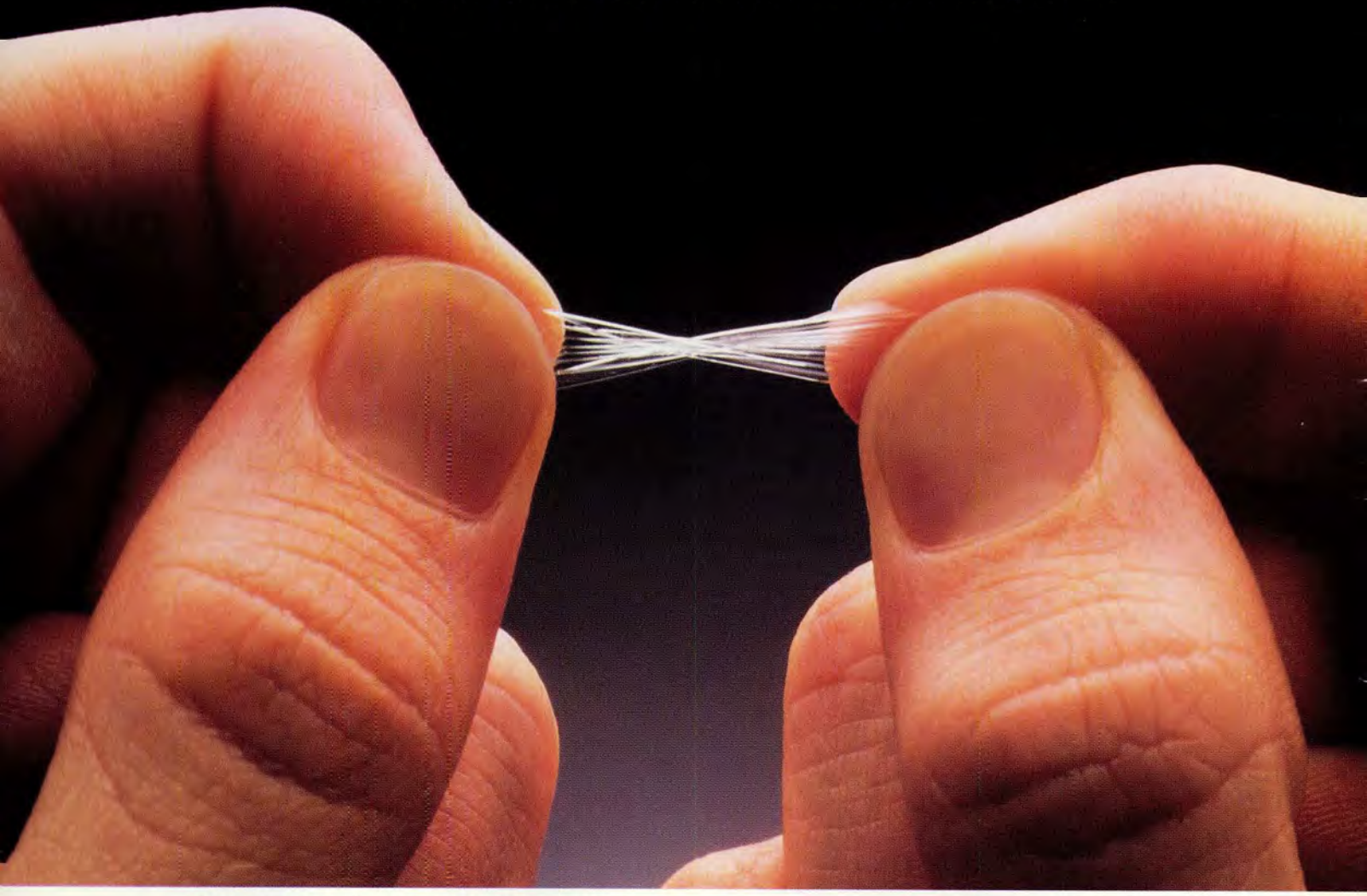

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Editorial

Éditorial

Culpability

The keepers of the public purse have raised their voices, almost in unison, decrying the perceived excess expenditure on health care delivery. One by one, the provinces have undertaken measures from capping of fees, through rationing of services, to de-insuring services in order to stem health care costs.

In all of the rhetoric surrounding such initiatives, blame for escalating costs usually is cast upon the providers. The blame purportedly lies within the practitioner's "over-utilization" of services. This translates into unwarranted testing, simply to generate more fees (higher incomes). In concert with this premise of over-utilization, presentations of gross billing incomes are made as justification of the concept of excesses.

This generic accusation of abuse (over-utilization), which suggests all practitioners are summarily guilty, is offensive. In addition, the attempt to localize the problems in the system simply to payment mechanisms is both unrealistic and unproductive.

The growth in health care expenditures, however, does warrant reflection upon the factors affecting use of services, such as government policy, advertising, public awareness and expectation, population and practitioner demographics, practice guidelines, litigation, scientific developments, professional education, practitioner knowledge and skills, ethics and patient presenting problem. Each of these, and other, variables affect use of services, type of services, extent of investigation required and treatment instituted.

At present, the premise exists that a cure for rising health care costs can be had by effectively placing health care professionals on salaries, thereby reducing the incentive to order tests since no additional income is earned by so doing. Some have argued that being in a non-fee-for-service setting may promote even more testing, since the attendant risk of penalty for inappropriate billing no longer exists. However, in this latter instance, since costs are fixed, there presumably will be less concern. The concern, instead, will rest with "under-utilization", hence the possible institution of quotas. My suspicion is that, if health care costs continue to rise, potentially one or more of several scenarios could occur, including no or insignificant salary increases, increased service quotas and further de-insuring of services. The need for evaluation of various payment mechanisms for health care delivery appears essential!

What is at stake?

Is professional autonomy threatened? Will the state establish priority of service delivery? Who determines quality-of-care issues? How can we assure the delivery of effective, efficient, high-quality health care, and at what cost to the patient, the public and the practitioner?

MJ Samek, OD, FAAO
Senior Editor

Culpabilité

Les responsables des finances publiques se sont fait entendre, presque à l'unisson, pour s'élever contre ce qui est perçu comme un coûteux abus des soins de santé. L'une après l'autre, les provinces ont pris des mesures allant du plafonnement des honoraires à la suppression de l'assurance, en passant par la limitation des services, afin de contenir les coûts des soins de santé.

Dans tous les discours qui accompagnent ce genre d'initiatives, la responsabilité de l'escalade des coûts est habituellement attribuée aux dispensateurs de soins. La responsabilité, peut-on lire, incombe au praticien, qui «en rajoute» souvent, ce qui se traduit par des tests injustifiés, sans autre intérêt que celui de gonfler les honoraires et d'augmenter ses revenus. Parallèlement à cette allégation, il est question de pratiques indélicates en matière d'honoraires, ce qui vise à justifier la notion d'abus.

Insinuant de façon sommaire que tous les praticiens sont coupables, cette accusation généralisée d'abus est offensante. Par ailleurs, tenter purement et simplement d'assimiler les problèmes du système aux mécanismes de paiement est à la fois dépourvu de réalisme et non productif.

La croissance des dépenses de santé, cependant, mérite effectivement qu'on réfléchisse à tout ce qui influe sur les services dispensateurs de soins, qu'il s'agisse des décisions politiques des gouvernements, de la publicité, de la conscientisation et des attentes du public, de la population et de la démographie des praticiens, des principes de traitement, des litiges, de l'évolution scientifique, de l'éducation professionnelle, des connaissances et des techniques des praticiens, de l'éthique et des cas de patients à problèmes; chacune de ces variables, entre autres, a des répercussions sur les prestations de services, la nature de ceux-ci, l'importance de l'enquête nécessaire et le genre de traitement institué.

À l'heure actuelle, on tient pour certain que le moyen de remédier au renchérissement des soins de santé peut être obtenu en salariant rationnellement les professionnels de la santé, ce qui réduirait la tentation de prescrire des tests puisqu'il n'en résulterait pas de revenus supplémentaires. Certains ont fait valoir que la disparition des honoraires peut être de nature à susciter un encore plus grand nombre de tests puisque le risque de sanction qui en résulte pour facturation inappropriée cesse d'exister. Dans ce dernier cas cependant, les coûts étant fixes, il y aura présumément moins matière à préoccupation. On se préoccupera plutôt de «sous-utilisation», d'où la possibilité d'institution de quotas. Je soupçonne personnellement que si les coûts des soins de santé continuent à s'élever, un ou plusieurs scénarios pourraient être possibles, notamment celui d'une augmentation de salaire nulle ou insignifiante, celui d'une augmentation des quotas de service et celui de la suppression de l'assurance des services. La nécessité d'évaluer les divers mécanismes de paiement pour prestations de service semble essentielle.

Qu'est-ce qui est en jeu?

L'autonomie de la profession est-elle menacée? L'État va-t-il établir une priorité quant aux prestations de services? Qui détermine la qualité des soins dispensés? Comment pouvons-nous assurer des soins de santé efficaces et de haute qualité, et à quel prix pour le patient, le public et le praticien?

MJ Samek, OD, FAAO
Rédacteur en chef

President's Podium

Mot du président

We're casting smaller shadows these days ...

Where are they — the optometric warriors of yesterday?

For months, indeed years, Canada's provincial and national optometric leaders have been sounding warnings — trying to be heard — about the growing outside forces threatening the hard-fought and hard-won independence of this profession.

Late last fall, the Alberta Association of Optometrists was challenged on its right to bar an optometrist's association with commercial enterprise. Early this year, vision and eye care services were de-insured in Newfoundland. Still later, the Alberta Association was told by the provincial government — with no consultation whatsoever — that optometric prescriptions for spectacles and contact lenses must now be given automatically to patients. And later still, l'Association des optométristes du Québec was told essentially the same thing by their own provincial government.

Read Dr Samek's editorial in this issue, especially the direct questions he poses in the final paragraph.

What does it take to get this profession together to fight for what we are?! And if we are not willing to fight for what we are, then what will we have become?

A few years ago, the federal government drafted what seemed a straightforward motherhood statement of health care policy. It was destined to become the Canada Health Act. CAO staff circulated copies to our Interprofessional Relations Committee — as well as our "old boy" network of past national and provincial presidents and committee chairmen and asked their advice. At the time, CAO staff was not fully aware of all the specific details of the previous battles related to the Medicare Act in 1967. Fortunately, others were. Suddenly, a seething Dr Roy Brown of Virden, Manitoba, was on the phone to the CAO offices, and what is printable of his comments suggested the government was "at it again", essentially trying to reduce all non-medical health care to nothing more than a service arm of medicine.

Dr Brown, as it turned out, was simply the first in a long line of optometrists who recognized the threat implicit in the draft Act. In short order, we heard from many others, each of whom in turn echoed the others' warnings.

And they were right! Had the Canada Health Act passed in its draft form, optometric procedures would have been defined solely as acts delegated by medicine. Dr Brown and his colleagues, you see, had fought the battles related to Medicare; they knew the language and obfuscating tactics of government; they knew what to look for and, when they saw it, knew its full implications for Optometry in Canada. And so they saddled up and helped draft CAO's Brief on the Canada Health Act. The result was a Brief that, while it ultimately did not achieve *all* our objectives, at least (and most importantly) cemented Optometry's position in the Canadian health care delivery system.

Dr Brown and his peers responded to the merest *hint* of trouble.

Look at the cases mentioned at the start of this column. Government hints no more — we *are* in trouble! De-insuring vision and eye care services is a disaster for this profession in Newfoundland. If Optometry in Alberta loses the battle to control the professional's right to associate, then we face a disaster nationwide.

Nous sommes bien discrets ces jours-ci ...

Où sont-ils, les optométristes qui sonneront la charge?

Pendant des mois, voire des années, nos porte-parole provinciaux et nationaux ont lancé des avertissements pour essayer de se faire entendre au sujet de la montée de forces extérieures qui menacent l'indépendance chèrement acquise de notre profession, une indépendance pour laquelle les générations précédentes d'optométristes ont durement combattu.

Depuis le début de cette année, les services oculo-visuels ne sont plus assurés à Terre-Neuve. Récemment, l'Association des optométristes de l'Alberta s'est vu refuser le droit d'interdire à un optométriste de s'associer à une entreprise commerciale. Après quoi, ils se font dire par le même gouvernement et sans qu'il y ait eu la moindre consultation — que les optométristes doivent maintenant remettre automatiquement les ordonnances pour les lunettes *et verres de contact* à leurs clients. Puis, 15 jours plus tard, l'Association des optométristes du Québec s'est fait dire essentiellement la même chose par son gouvernement provincial.

On lira dans ce numéro l'éditorial du D[r] Samek, et notamment les questions directes qu'il pose dans le dernier paragraphe.

Que faut-il pour que nos membres se réveillent afin de défendre l'intégrité et l'indépendance de leur profession? Et si nous ne sommes pas prêts à lutter pour le faire, qui le fera?

Le gouvernement fédéral a rédigé au début des années 80 ce qui semblait n'être autre chose qu'une pieuse déclaration de la politique des soins de santé. C'était l'avant-projet de la Loi canadienne sur la santé. L'ACO en a fait parvenir des exemplaires à notre Comité des relations interprofessionnelles, ainsi qu'à notre réseau d'anciens présidents nationaux et provinciaux et présidents de comité pour leur demander leur avis. Ce faisant, l'ACO espérait provoquer une levée de boucliers semblables à celle suscitées par la Loi sur les soins médicaux en 1967. Heureusement, des optométristes réagirent. Ainsi, un certain D[r] Roy Brown, de Virden (Manitoba), a soudain téléphoné, furibond, au bureau de l'ACO, et ceux de ses commentaires que la bienséance n'interdit pas d'imprimer insinuaient que le gouvernement «remettait ça», s'efforçant essentiellement de réduire tous les soins de santé non médicaux à rien de plus qu'un service de la médecine.

Il se trouve que le D[r] Brown était tout simplement le premier d'un grand nombre d'optométristes qui voyaient dans le projet de loi une menace implicite. En peu de temps, nous en avons entendu beaucoup d'autres, chacune faisant à son tour écho aux avertissements précédents.

Comme ils avaient raison! Si la Loi canadienne sur la santé avait été promulguée telle qu'elle était rédigée dans l'avant-projet, les pratiques optométriques auraient été définies exclusivement comme des actes délégués par le corps médical. Le D[r] Brown et ses collègues dont votre humble serviteur, voyez-vous, se sont battus pour l'assurance-santé; ils connaissaient le langage du gouvernement et ses tactiques déroutantes; ils savaient quoi chercher et, quand ils l'ont trouvé, ils en connaissaient toutes les conséquences pour l'optométrie au Canada. Ils ont donc aidé à rédiger le mémoire de l'ACO sur la Loi canadienne sur la santé. Le résultat a été un mémoire qui, s'il ne répondait finalement pas à *tous* nos objectifs, a contribué du moins (et c'est ce qui compte le plus) à conforter la position

But understand: I am not claiming we will lose the *scope* of what we practise today as optometrists. Even if the worst comes to pass, optometrists will continue to diagnose, to prescribe and to treat. No, what I perceive to be "at risk" is, rather, Optometry's control over its own destiny. We are in danger of losing our right to establish independent practices; and our right to control the full scope of those practices. The examples in the preceding paragraph might well be the thin edge of the wedge. If we allow these, our opponents' first steps, to go unchallenged, it will be much more difficult to recover lost ground later on.

Have we become so comfortable in our "security" that we fail to see the need to challenge these threats to our independence? If so, then we should seriously reconsider — because we are anything *but* secure.

And yet, where are today's warriors, the optometrists of the younger generation who are reaping the benefits of their predecessors' efforts; those practising today who, from day one, are earning more than their parents' generation ever dreamt possible?

We have no right to ask the Browns, the Woodruffs, the Hubers and the Landrys of our profession to soldier forth once again on our behalf. They and their peers fought — and won — the battles that earned us our present position in Canada's health system. Today's practitioners must be the ones to meet today's challenges.

When your leaders ask for your help, your commitment, your support, we're not seeking to push forward a personal pet project; we're hoping to save Optometry's independence! With the profession under siege everywhere in Canada, we must all of us be willing to join the fray.

Dr Jean-M Rodrigue
President

de l'optométrie dans le système canadien de prestations des soins de santé.

Le Dr Brown et ses pairs ont réagi au moindre *soupçon* de difficulté.

Voyez les cas dont il est question au début de cette rubrique. Le gouvernement n'insinue plus rien ... nous *sommes* en difficulté! Que les soins oculo-visuels ne soient plus couverts est une catastrophe pour la profession à Terre-Neuve. Si les optométristes de l'Alberta perdent la bataille sur le droit d'association, nous faisons face dans tout le pays à une situation désastreuse.

Pratique indépendente vs statut d'employé

Qu'il soit cependant bien entendu que je ne prétends pas que nous allons perdre le *champ d'action* qui est le nôtre aujourd'hui en tant qu'optométristes. Même si le pire doit arriver, les optométristes continueront à diagnostiquer, à prescrire et à traiter. Non, ce que je perçois comme dangereusement menacé, *c'est plutôt le droit des optométristes de prendre en main leur propre destinée.* Nous courons le danger de perdre notre droit d'exercer en toute indépendance et notre droit de décider de la nature de nos prestations. Les exemples du paragraphe précédent pourraient bien constituer le petit côté du coin qui s'enfonce dans l'édifice de nos prérogatives. Si nous laissons faire, si nous ne réagissons pas aux premiers coups de boutoir de nos adversaires, il sera beaucoup plus difficile de regagner, plus tard, le terrain perdu.

Nous sentons-nous si assurés de notre «sécurité» que la nécessité de nous défendre contre ces menaces à notre indépendance ne nous apparaisse même pas? Si c'est le cas, nous devrions sérieusement reconsidérer la question parce que la situation est tout ce qu'on veut *sauf* sûre.

Où sont les combattants d'aujourd'hui, les optométristes de la jeune génération, qui récoltent le fruit des efforts de leurs prédécesseurs; ceux qui exercent aujourd'hui et qui, dès le premier jour, gagnent plus que ce que leurs confrères de la génération de leurs parents aurait jamais cru possible!

Nous n'avons pas le droit de demander aux Brown, aux Woodruff, aux Huber et aux Landry de notre profession de continuer à se battre encore une fois pour nous. Ils se sont battus, ainsi que leurs pairs, et ils ont gagné les batailles grâce auxquelles nous occupons notre actuelle position dans le réseau canadien de la santé. Les praticiens d'aujourd'hui, ceux qui récoltent le fruit des batailles passées, doivent être ceux qui relèvent les défis d'aujourd'hui.

Quand vos porte-parole vous demandent votre aide, votre engagement, votre soutien, ce n'est pas pour satisfaire une marotte; c'est parce qu'ils espèrent sauver l'indépendance des optométristes! La profession étant dans tout le Canada en état de siège, nous devons tous être prêts à monter en ligne. *Le ferez vous?*

Dr Jean-M Rodrigue
Le président

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A typical case of granulomatous uveitis

L Michaud

key words: granulomatous uveitis; mutton-fat keratic precipitates; endothelial neovascularization; vitreous bodies

mots clés: uvéite granulomateuse; taches de bougie; néoformation endothéliale de vaisseaux sanguins; corps vitré

Granulomatous uveitis is not the most impressive of current eye diseases, but its effects on the cornea — keratic precipitates, neovascularization and scarring — are serious. Early diagnosis and treatment are the only ways to handle this kind of disease, thus allowing only minor long-term effects to be dealt with. That treatment includes steroid therapy and regular follow-up in order to minimize side effects.

De nos jours, l'uvéite granulomateuse n'est pas la maladie oculaire la plus impressionnante, mais ses effets sur la cornée, p.ex., le précipités en tache de bougie, la néoformation de vaisseaux sanguins et la cicatrisation, sont graves. Le diagnostic et le traitement précoces sont les seules façons de soigner ce type de maladie, ce qui réduit le nombre des effets prolongés de moindre importance restant à traiter. Le traitement fait appel à la stéroidothérapie et à un suivi régulier afin de réduire les effets secondaires au minimum.

L Michaud, OD, FAAO — La Pocatière, Québec

RR is a white Caucasian male of 39 who was seen in a routine examination in July 1989. At that moment, his main complaint was that his right eye was red and hurt, and had been bothering him for two weeks on examination date. The pain had been increasing during this time and his vision had become blurred in the three days prior to the exam. His last visit was in November 1988, and his ocular health was normal at that time.

Background

RR is a waiter in a restaurant. He also takes care of pets (cats and dogs) on weekends. A few years ago, he worked in the far North with the Inuit communities. He enjoys good health and has good hygiene habits; he doesn't use any drugs such as tobacco or alcohol and he takes no prescribed medication. His family history reveals tuberculosis (father) and arterial hypertension (mother). He has been examined yearly and, since 1985, the refractive findings have remained stable. The November 1988 refraction was as follows:

electronic refraction	o.d. -2.00 -0.25 X 3 o.s. -2.00 -0.25 X 5
retinoscopy	o.d. -1.50 -0.25 X 180 clear and sharp reflex o.s. -1.50 -0.50 X 5 clear and sharp reflex
subjective[7]	o.d. -1.25 6/6 (20/20) o.s. -1.25 -0.50 X 5 6/6 (20/20)
binocular function	unremarkable
accommodative amplitude	+5.50

Glasses were prescribed in 1988 according to the above refractive findings. He had worn a pair of rigid gas permeable (RGP) contact lenses, but he had discontinued their use, because of mishandling, more than a year before.

When we saw him, his health was normal; he had no allergies nor any disease symptoms. At the time of his visit, the refractive findings were the same, but the visual acuity for the

Figure 1. Mutton-fat keratic precipitates and edema. (Marco V-G, g:18 f:2.0 s:1/60 o:0)

right eye was 6/15 (20/50), no improvement with pinhole, and 6/6 (20/20) for the left eye.

Ocular health

The fundi revealed clear, sharp-edged Type II optic nerve excavation of 0.4 for each eye, with a little ring of pigmentation around the nerve. The macular reflex was present in both eyes and the periphery of the retina was seen as being in good shape. The pupils were slow and reacted both to light and to accommodation and the vitreous was a little hazy in his right eye.

Biomicroscopy revealed the following:

	o.d.	*o.s.*
lashes	clear, well-implanted	same
lids	clear, no edema	same
palpebral conjunctiva	no papillae nor follicles, normal coloration	same
bulbar conjunctiva	slight hyperemia in superonasal area involving the limbus at 1 o'clock	white eye
cornea	marked edema, central infiltrates (mutton-fat), neovascularization on endothelium from limbus to the pupil (4th generation of vessels)	clear, no infiltrates
anterior chamber	flare grade 1	calm and clear
iris	brown, no infiltrates, slight swelling	brown, normal
lens	large white dots on posterior	clear, suture visible
vitreous	infiltrates and greyish bodies seen in horizontal line	clear

The other tests performed indicated normal central visual field and an intraocular pressure of 12 mmHg in both eyes (Goldmann, 16h00). We therefore diagnosed bilateral myopia with a red and painful right eye, along with corneal infiltrates and edema, flare and precipitates in the vitreous.

Discussion

The pain, the redness and the flare led us to a specific diagnosis of uveitis.[9] Such a condition requires aggressive and immediate treatment, because of the rapid evolution of the disease and its impact on vision. The treatment is based on the nature of the uveitis.[8] The location where the disease shows itself will usually determine its exact components.

Anterior or posterior complications, or both, should give us a differential diagnosis. In this case, it is obvious that we have both locations involved in the disease: neovascularization on the cornea (see Figure 4), flare and many greyish bodies in vitreous. With such considerations, a granulomatous uveitis should be considered.[7]

Duane et al[1] have reported the main signs and symptoms seen in granulomatous vs non-granulomatous uveitis (reported in Table 1). Our patient shows almost all signs of granulomatous uveitis except for the nodules in the iris meshwork, that is, white eye, greasy exudates on the lens, medium to large keratic precipitates (see Figure 1) and heavy vitreous exudates (Figures 2, 3). Woods[2] believed that the granulomatous types were due to such granulomatous diseases as tuberculosis and sarcoidosis.

Sarcoidosis is a granulomatous disease in which 27 to 38% of the patients[3] have ocular involvement. Anterior uveitis is most often seen in such cases. People between 40 and 60 are affected and that type of uveitis includes iris nodules and iridocyclitis, leading (on a long-term basis) to glaucoma and cataracts, especially if the chronic inflammatory condition occurs for a long time.[9] On the retina, the classic "candle wax dripping" is not frequently seen, but many patients with posterior inflammation will have perivenous sheathing. Deep yellow choroidal lesions, resembling Dalen-Fuchs nodules, occur in half of the patients and are more common than true elevated choroidal granuloma. These lesions are composed of giant and epithelioid cells containing uveal pigment.[5,6] Macular edema, vitreous opacities and neovascularization of the optic disk can also occur in posterior uveitis related to sarcoidosis. Tuberculosis could also produce similar findings, but its implication involves choroidal vessels more than others. In that particular case, we note subretinal neovascularization, retinal periphlebitis and iritis. Flocular debris in the anterior chamber could be seen. Toxoplasmosis, toxocariasis and histoplasmosis are well-documented diseases with specific retinal scarring. They are easily identifiable and shouldn't be confused with other possible causes of that uveitis.

Some authors have demonstrated that streptococcus is involved in both granulomatous and non-granulomatous uveitis.[1,3,4] Therefore, we have to consider a wide spectrum of causes to explain what happened to our patient.[7] A study at Indiana University (1966–70)[1] indicates some common causes of granulomatous uveitis:

- histoplasmosis (32%)
- toxoplasmosis (16%)

Table 1. Differentiation of granulomatous and non-granulomatous uveitis[1]

Portion of eye	Granulomatous	Non-granulomatous
Anterior segment	Insidious and mild; eye relatively white	Acute onset of severe inflammation (red eye)
	Nodules are superficial or deep in the iris	No nodules in the iris
	Floccules on the iris (evanescent)	No floccules on the iris
	Greasy exudates on the lens	May be heavy fibrinous exudate on lens
	Medium and large and often mutton-fat (greasy) keratic precipitates if patient is not on cortisone drops which reduce the size of the keratic precipitate	Small, non-greasy keratic precipitates
Posterior segment	Common in choroid or retina	Rare in choroid or retina
	Heavy vitreous exudate or veils common	No or only fine punctate opacities in the vitreous
	Definite nodular lesion(s)	Diffuse — flat involvement characterized by edema and pigment changes

Figure 2. Greyish bodies in vitreous. (Marco V-G, g:18 f:2.0 s:1/60 o:0)

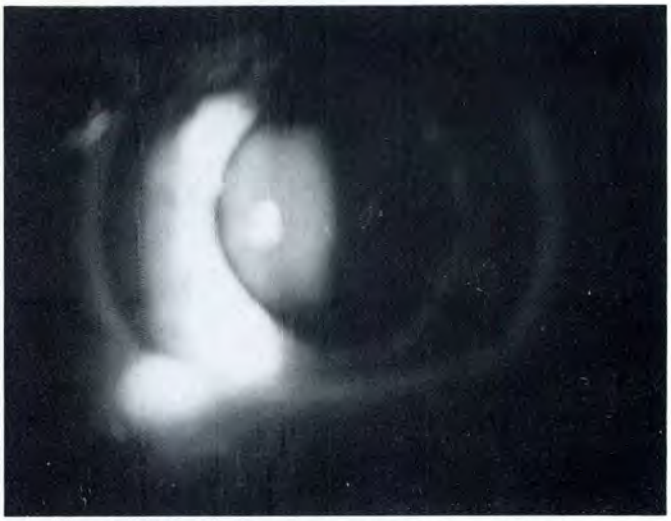

Figure 3. Greyish bodies in vitreous and posterior capsule. (Marco V-G, g:28 f:2.8 s:1/60 o:0)

- peripheral uveitis (8%)
- sarcoidosis (2%)
- syphilis (2%)
- toxocariasis (2%)
- tuberculosis (0.3%)
- Behçet's disease (0.2%)
- Vogt-Kayangi-Harada Syndrome (0.1%)
- unknown origin (32%)

Finally, Bachman et al[4] suggested multiple sclerosis as another cause of that type of uveitis.

Our patient is in close contact with cats and dogs. He had also been active in a high tuberculosis area with Inuit people and, in fact, his father had died of the same disease four years earlier. With such a background, one must consider these as possible causes or possibly consider assigning it to "unknown origin". To check carefully the reliability of those possibilities, a general health examination including blood analysis, X-rays and neurological tests is necessary. We referred the patient to an ophthalmologist immediately, first for appropriate drug treatment for the uveitis and, second, to undergo the appropriate lab tests to understand his case somewhat better.

Control Examination 1

Four days later, we met RR for a follow-up examination and to take photos of the cornea and uvea. The ophthalmologist had confirmed our diagnosis and had proceeded with an aggressive drug therapy that consisted of an application of atropine q.i.d. and Predforte 6 times a day. Steroid therapy helps to reduce inflammation and atropine dilates the pupil in order to prevent posterior synechiae. The blood tests were negative with respect to histoplasmosis, tuberculosis, toxoplasmosis and sarcoidosis.

At the time of this visit, the patient showed a proliferate neovascularization with many more branches originating from the main vessels. The progression, however, was stopped at the pupil border. The vitreous bodies were unchanged (Figure 4). The peripheral retina, much easier to see now after full dilation, didn't show any sheathing of the vessels, nor any yellow or pigmented lesions. The visual acuity was the same at 6/15 (20/50). The cornea didn't show any sign of reabsorption, but the inflammation seemed to have regressed slightly. Subjectively, pain and redness were reduced. IOP was measured as 18 mmHg for o.d. and 14 mmHg for o.s. (Goldmann 14h00). We advised our patient to come back three weeks later for a follow-up.

Control Examination 2

We saw RR for his second follow-up examination a month after the initial treatment. Subjectively, he reported no pain, no itching nor any other negative symptoms. Objectively, his right eye showed a reduced inflammation without hyperemia. The cornea remained edematous with infiltrative scars and mutton-fat spots in the central stroma. The endothelial neovascularization was reduced significantly; only a few vessels contained blood; the rest were ghost vessels. The visual acuity for o.d. was measured at 6/9 (20/30) with his present glasses, reaching 6/7.5 (20/25+) with an overrefraction of plano -1.25 X 180. The central visual field was full with a regular blind spot and no scotoma. As a side effect of the drug therapy, the intraocular pressure was found to be higher than before: 22 mmHg for the right eye and 14 mmHg for the left (Goldmann 10h30). The fundi examination showed that the cupping was stable in comparison with previous findings. Since atropine had been stopped for five days, the right pupil was larger than the left and presented little reaction to light and accommodation. Predforte was being taken on a regular basis and, after that visit, we instructed the patient to taper off that drug slowly and to stop taking it completely in 10 days (4-3-2-1). In brief, the inflammatory reaction was almost ended with a few involvements in visual acuity.

Figure 4. Endothelial; neovascularization and corneal edema. (Marco V-G, g:28 f:2.0 s:1/60 o:0)

The cornea was healing very well; a few infiltrative scars and ghost vessels were still noticed on that visit. We were also concerned by corneal edema which seemed to reduce visual acuity much more than infiltrative scars. In order to heal the edema, we prescribed MURO-128, q.i.d., for a month, when we saw him next. Remember that uveitis has to be followed up very carefully for the following reasons:

- to monitor IOP after steroid therapy;
- to monitor VA after MURO treatment;
- to control peripheral fundi and other ocular signs;
- to watch for recurrence. Granulomatous uveitis is a disease that can recur in the future. The uveitis can recur several years after the primary attack.

Control Examination 3

We had proof of the efficacy of MURO-128 a month later when we saw RR for his control examination. His condition had improved slightly in the interval, and the symptoms of blurred vision and photophobia were all gone. In fact, we observed that the cornea was almost free from edema. Neovascularization was now only seen as ghost vessels, except for the superior portion near the limbus, where active vessels were still found. Endothelium was disrupted by both kinds of vessels, but no fold was seen in the Descemet's membrane. No staining was observed and the scars in the stroma were seen as unchanged (Figure 5). The refractive examination was redone and the following results were found:

keratometry	o.d. 8.70 X 8.75 axis 180 clear target o.s. 8.80 X 8.70 axis 180 clear target
retinoscopy	o.d. -2.00 -0.50 X 175 deformed reflex o.s. -1.75 -0.50 X 10 clear and sharp reflex
subjective	o.d. -1.75 -1.00 X 180 6/6 (20/20) -1 o.s. -1.50 -0.50 X 180 6/6 (20/20)
crossed-cyl.	o.d. -1.00 -1.00 X 180 0.37 M o.s. -1.00 -0.50 X 180 0.37 M

As we can see, the refractive condition was affected by the inflammatory process of the granulomatous uveitis. So, we made a new pair of glasses for our patient to complete the treatment and give him his best visual acuity.

At that moment, the inflammation was completely reduced, leaving the eye with few mutton-fat keratic precipitate scars. Endothelium was broken irremediably and the perfusion of the aqueous has to be controlled by an hyperosmotic agent, probably over a long period of time. Ghost vessels will be checked in the future because of the possibility of recurrence of the disease. The pupil area, this time, was not involved, but a second attack could lead to different results.

The restored condition can be assumed to be fragile because of the potential for recurrence. This patient will be checked on a three-month basis for a year and, after that, every six months. The therapeutic possibilities are minimal. An aggressive drug therapy is always necessary in such a case but, if the neovascularization reaches the pupil area and disrupts visual acuity, we will have to think about a corneal graft, which implies some long-term effects such as chronic edema, rejection, endothelial breaks and folds.

Figure 5. Stromal scars of keratic precipitates. (Marco V-G, g:18 f:2.0 s:1/60 o:4)

The optometrist can fully assume his primary care role in such a case. Co-management with a corneal specialist gives the patient the best result he can expect in order to preserve his vision. Granulomatous uveitis is not the most severe disease of the ocular world, but it constitutes one of the most devastating agents in regard to the long-term effects on visual acuity and ocular health. The rapidity of both the diagnosis and the treatment are the only ways of treating this kind of disease, and this is a particular challenge to the private practitioner.

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Évaluation de la rotation des lentilles cornéennes rigides à courbure torique interne

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mots clés: lentilles cornéennes; correction de l'astigmatisme; lentilles toriques internes; rotation de lentilles toriques

key words: contact lenses; astigmatism; toric base curve; toric base curve rotation

L'amplitude de la rotation des lentilles cornéennes rigides à courbure torique interne est importante pour le maintien d'une vision adéquate. Afin de l'évaluer, huit cornées astigmates ont été ajustées avec cinq lentilles toriques internes différentes: alignée, 2/3 et 4/3 de la toricité de la cornée, une dioptrie plus plate et une dioptrie plus cambrée que les deux méridiens.

Il en ressort que les lentilles cornéennes ajustées une dioptrie plus cambrée dans les deux méridiens présentent moins de rotation que les autres et que l'action des paupières ainsi que la topographie cornéenne influencent le comportement de ce type de lentille.

Minimizing lens rotation of the toric base curve is very important to maintain a good visual acuity. This study evaluates eight astigmatic corneas fitted with five different toric base curve designs: 2/3 and 4/3 corneal toricity, 1D flatter and 1D steeper than the two corneal meridians.

The results demonstrate that steeper lenses show less rotation and that the superior lid and corneal topography will affect behaviour of that kind of lens.

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Introduction

Les lentilles cornéennes rigides à géométrie sphérique corrigent l'astigmatisme cornéen et s'avèrent utiles lorsque ce dernier est le principal responsable de l'astigmatisme de réfraction du sujet. Toutefois, lors d'astigmatisme cornéen important, la lentille sphérique provoque une entrave à la circulation lacrymale et augmente les risques d'abrasion cornéenne. Il importe, à ce moment, d'utiliser une géométrie qui permette une meilleure conformation à la surface cornéenne, c'est-à-dire une lentille rigide torique interne.[1]

Plusieurs techniques d'ajustement des lentilles à courbure de base toriques ont été proposées pour les cornées astigmates. Mandell[1] et Edwards,[2] par exemple, considèrent qu'il est préférable de réaliser un alignement dans chaque méridien. Remba,[3] quant à lui, recommande l'aplatissement de chaque méridien de 0.25 à 0.75 dioptrie (D). Enfin Goldberg[4] cambre la courbure la plus plate de la lentille alors que la courbure la plus cambrée est aplatie de la demi-différence entre les deux méridiens.

Afin de maintenir une vision adéquate, la technique utilisée doit assurer la coincidence des lignes focales de la lentille de contact avec les focales du système oculaire. Cette lentille doit conserver son orientation méridionale. Lorsqu'il y a rotation, les méridiens principaux de la lentille ne correspondent plus à ceux de la cornée astigmate, ce qui se traduit par une modification de la correction et une diminution de l'acuité visuelle. C'est pourquoi, il est important que la rotation soit minimale, afin que les rayons de courbure de la lentille torique puissent s'aligner le mieux possible sur les deux méridiens principaux de la cornée et ainsi éviter toute réduction d'acuité visuelle (cet effet sera moins important dans le cas d'une bitorique à effet sphérique).

L'orientation qu'adopte la lentille, dépende de son interaction avec la paupière supérieure. Si le diamètre de la lentille cornéenne est grand, la paupière inférieure pourrait également jouer un rôle dans sa stabilisation.[5] Bennett et Grohe[6] considèrent la configuration des paupières, leur position, leur tension, la vigueur du clignement comme des facteurs déterminant dans l'orientation finale de la lentille. La géométrie de la lentille exerce aussi une influence spécifique. La pression palpébrale appliquée sur une lentille dont l'épaisseur au bord est variable selon les méridiens (surface torique) entraîne la lentille dans un mouvement de rotation à mesure que la lentille se recentre.

Peu d'études se sont penchées sur les caractéristiques souhaitables pour la stabilité méridionale d'une lentille rigide perméable aux gaz, à courbure torique. L'unique recherche sur le sujet a été réalisée par Edrington, Stewart et Woodfield.[7] Ils ont conclu que la rotation de la lentille était minimale, lorsque la toricité de la lentille correspondait au 2/3 de celle de la cornée.

Le but de cette étude est d'évaluer la rotation des lentilles rigides perméables aux gaz à courbure interne torique, ajustées sur diverses cornées astigmates. Une technique vidéo sera utilisée pour réaliser ces mesures.

Méthodes

Cinq sujets, ayant un astigmatisme cornéen compris entre 1,50 D et 2,50 D, ne présentant aucune pathologie active et non-porteur de lentilles cornéennes ont participé à cette étude. Trois d'entre eux démontraient un astigmatisme cornéen bilatéral, permettant l'équipement des deux yeux en lentille torique. Au total, huit yeux ont été ajustés, quatre des cornées avaient un astigmatisme direct, les autres avaient un astigmatisme inverse.

Des lentille afocales POLYCON à toricité interne d'un diamètre de 9.5mm ont été utilisées pour tous les ajustements. Chacun des yeux était ajusté selon cinq modalités différentes: courbures de la lentille alignées sur les deux méridiens principaux (modalité A), une courbure alignée sur le méridien le plus plat et une toricité égale au 2/3 de celle de la cornée (modalité B), une courbure alignée sur le méridien le plus plat et une toricité égale aux 4/3 de celle de la cornée (modalité C), courbures 1D plus plates que celles des deux méridiens principaux de la cornée (modalité D) et, enfin, courbures 1D plus cambrées que celles des deux méridiens principaux de la cornée (modalité E). Afin de faciliter la mesure des rotations, la centre géométrique de chacune des lentilles était marqué, de même que deux repères diamétralement opposés dans un des méridiens.

L'enregistrement des mouvements de la lentille s'effectuait à l'aide d'un système vidéo composé d'une part d'une caméra Panasonic (DK 3000) montée sur un biomicroscope Marco et munie d'un interface vidéo et d'une lentille diffusion, et d'autre part, d'un magnétoscope VHS industriel JVC. Un moniteur haute définition a été utilisé pour l'observation. Les mesures de la position du méridien marqué sur la lentille, ont été faites à l'aide d'un rapporteur d'angle fixé sur une règle métallique (fig 1).

Après la pose d'une lentille et stabilisation manifeste du larmoiement réflexe (15 minutes), un enregistrement magnétoscopique était effectué. Dans un premier temps, le patient ne recevait aucune consigne de clignement (clignement normal). Dix clignements de ce type étaient alors enregistrés. Une fois cette séquence terminée, le patient devait exécuter un clignement complet avec la même lentille cornéenne rigide, de sorte que les deux paupières se touchent. A nouveau, une séquence de dix clignements était enregistrée. Ceci était fait pour les cinq modalités d'ajustement de lentilles.

Figure 1. Dispositif expérimental servant à mesurer la rotation des lentilles cornéennes rigides toriques internes. L'image fixe de la lentille obtenue sur un écran à haute définition est mesurée à l'aide d'un rapporteur d'angle monté sur une règle métallique.

Après l'enregistrement, chacune des lentilles était observée à l'aide du moniteur à haute définition. La mesure de la rotation s'effectuait à l'aide du rapporteur et consistait à mesurer l'angle, en notation TABO, entre l'axe horizontal et le méridien joignant les repères sur la lentille. Ces mesures étaient réalisées sur une image fixe. Deux mesures étaient prises: la première au tout début de la phase d'ouverture de la paupière et la deuxième lorsque la lentille avait atteint sa position de stabilité. La

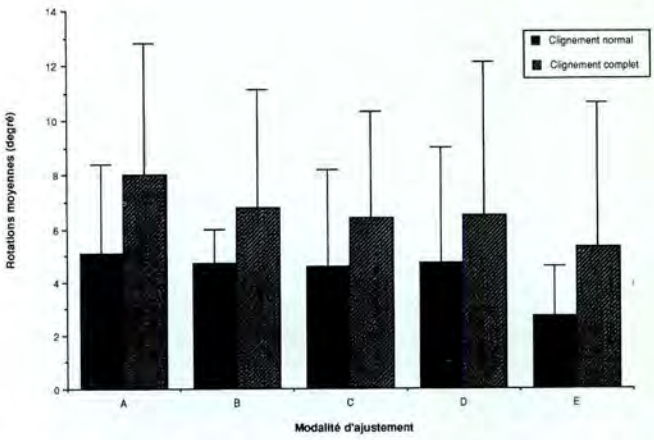

Figure 2. Moyenne des rotations (en degrés) pour l'ensemble des yeux ajustés selon le clignement et la modalité d'ajustement. L'écart-type est aussi représenté. A représente un alignement le long des deux méridiens principaux, E et B, respectivement un ajustement plus plat et plus cambré d'une dioptrie. Les conditions B et C utilisaient une toricité égale aux 2/3 (B) ou aux 4/3 (C) de celle de la cornée.

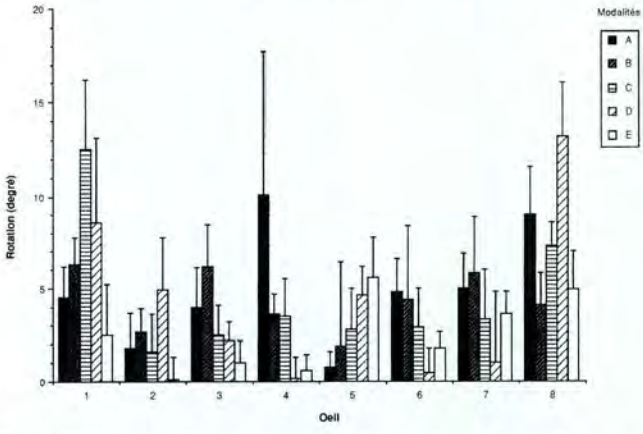

Figure 3. Moyenne des rotations (en degrés) lors de dix clignements pour chaque oeil ajusté sous différentes modalités. A représente un alignement le long des deux méridiens principaux, E et B, respectivement un ajustement plus plat et plus cambré d'une dioptrie. Les conditions B et C utilisaient une toricité égale aux 2/3 (B) ou aux 4/3 (C) de celle de la cornée. Aucune consigne particulière quant au type de clignement n'était fournie aux patients.

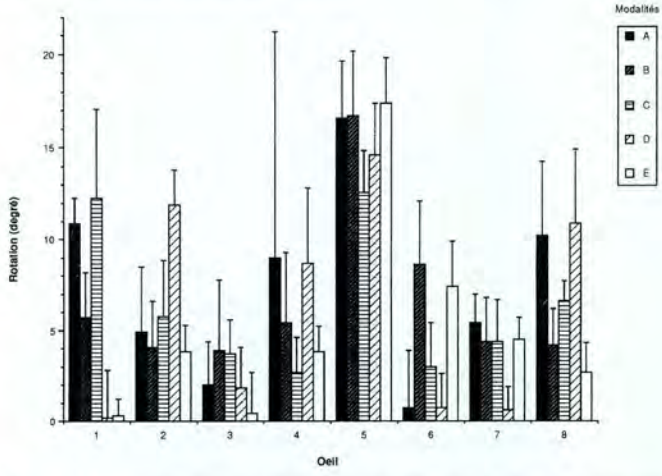

Figure 4. Moyenne des rotations (en degrés) lors de dix clignements complets pour chaque oeil sous différentes modalités d'ajustement. A représente un alignement le long des deux méridiens principaux, E et B, respectivement un ajustement plus plat et plus cambré d'une dioptrie. Les conditions B et C utilisaient une toricité égale aux 2/3 (B) ou aux 4/3 (C) de celle de la cornée.

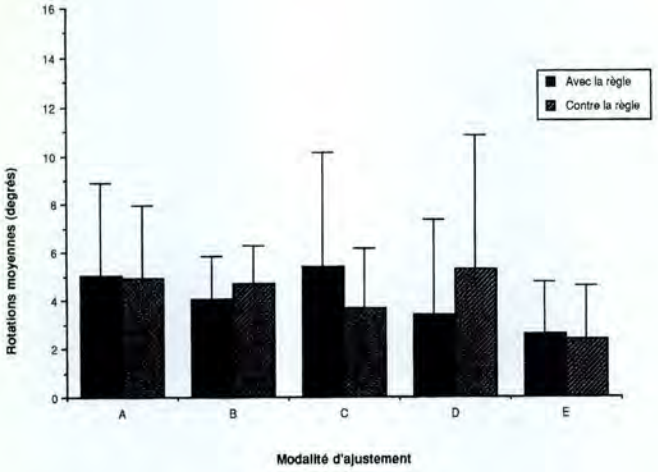

Figure 5a. Comparaison des moyennes de rotations pour les astigmatismes avec et contre la règle (clignement sans consigne).

différence entre ces deux mesures représente la rotation de la lentille.

Résultats

La moyenne des rotations mesurées pour chacune des modalités d'ajustement, avec et sans consigne de clignement, est présentée à la figure 2. Comme il était possible de prévoir, la modalité E (1,00 D plus cambrée dans les deux méridiens) est celle qui a démontré le moins de rotation au cours de dix clignements, tandis que la modalité A (alignement le long des deux méridiens principaux) est celle dont l'amplitude de la rotation a été la plus grande. On peut aussi noter, sur cette même figure, que le clignement complet augmente la moyenne des rotations ainsi que la valeur de l'écart type pour chacune des modalités.

A la figure 3 et 4, on retrouve les moyennes des rotations de chacun des yeux, pour chacune des modalités, avec et sans consigne de clignement. Ces résultats font ressortir une très grande variabilité de l'amplitude de la rotation entre les différents yeux. Par exemple, les mesures de la modalité D, dans la figure 3 sont très différentes pour l'oeil 4 et l'oeil 8. Cette variabilité se constate aussi à la figure 4 pour les yeux 3 et 5.

Finalement, la nature de l'astigmatisme, c'est-à-dire avec ou contre la règle, ne semble pas entraîner de différence substantielle dans la rotation de la lentille lors du clignement normal (fig 5a). Par contre, lorsque le clignement est complet, l'amplitude de la rotation est plus grande pour les astigmatismes avec la règle, sauf pour la modalité D (fig 5b).

Discussion

La rotation d'une lentille cornéenne rigide perméable aux gaz, à toricité interne, peut être influencée par le type d'ajustement, l'action des paupières et la topographie cornéenne.

Cette étude conclut qu'une lentille torique interne plus cambrée dans les deux méridiens agit de nature à diminuer la rotation lors du clignement. Une telle lentille tend à adhérer à la cornée, ce qui empêche la paupière supérieure d'exercer un effet de déstabilisation lors de sa fermeture. La lentille alignée sur les deux méridiens principaux, contrairement à la précédente, entraîne une plus grande rotation. Ces résultats contrastent avec ceux de l'étude d'Edrington, Stewart et Woodfield.7 Les différences obtenues pourraient être dues à des

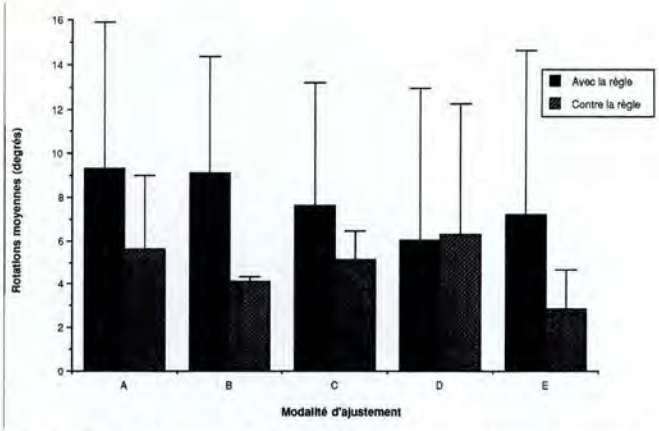

Figure 5b. Comparaison des moyennes de rotations pour les astigmatismes avec et contre la règle (clignement complet).

différences au niveau de l'échantillonnage, du protocole et du design des lentilles cornéennes utilisées.

Même si la lentille plus cambrée dans les deux méridiens présente moins de rotation, on peut difficilement proposer ce type d'ajustement. En effet, comme les lentilles sphériques, les lentilles toriques trop cambrées perturbent l'échange lacrymal et gazeux, ceut qui peut entraîner certaines modifications du métabolisme cornéen. Il sera donc préférable d'utiliser des courbures postérieures qui favorisent une bonne circulation lacrymale afin d'éviter de tels problèmes. Par contre, il faudra tenir compte du fait que les courbures cambrées offrent une performance supérieure au niveau de la rotation.

L'action des paupières joue également un rôle important dans la stabilité des lentilles cornéennes à toricité interne, comme le démontrent les résultats de la figure 2. Un clignement complet produit une rotation plus importante qu'un clignement sans consigne. La paupière supérieure exerce alors un plus grand contrôle sur la lentille, ce qui a pour effet d'augmenter son mouvement lorsqu'elle est libérée à la fin du clignement. Un clignement sans consigne occasionnera plus souvent qu'autrement une fermeture incomplète des paupières diminuant ainsi la prise de contrôle par la paupière supérieure.

La topographie cornéenne semble influencer, elle aussi, la rotation des lentilles toriques internes. Comme il a été démontré, les astigmatismes avec la règle présentent des amplitudes de rotations plus grandes que les astigmatismes contre la règle lors du clignement complet. Ceci pourrait s'expliquer par une grande facilité d'action de la paupière supérieure lorsque le méridien vertical est plus courbé. Dans le cas d'une lentille plus plate, la différence serait moins importante puisque ces lentilles cornéennes ont tendance à demeurer sous la paupière supérieure chez les astigmates avec la règle.

La topographie de la cornée pourrait aussi expliquer les grandes variabilités des résultats obtenus. Comme il a déjà été démontré, la zone périphérique peut présenter des différences assez importantes d'une cornée à l'autre.[8] Cette différence associée aux différences au niveau de la position et de la tension de la paupière supérieure de chacun des sujets pourrait être responsable des variations obtenues entre les sujets au cours de cette étude.

D'un point de vue optique, l'ajustement de lentilles cornéennes rigides à toricité interne aligné avec la cornée nécessite souvent l'utilisation d'une lentille bitorique. En effet, dû à la différence d'indice de réfraction entre la lentille et les larmes, les lentilles toriques internes produisent souvent un astigmatisme résiduel induit, qu'on doit corriger en ajoutant une toricité sur la surface externe.[1] La modalité B (2/3 de la toricité de la cornée) permet d'éviter, dans certains cas, la toricité externe, parce que sa valeur de correction est pratiquement

égale à celle de l'astigmatisme cornéen. La modalité C (4/3), au contraire, augmente la possibilité de retrouver à la surréfraction, un astigmatisme résiduel induit, tandis que les modalités D et E créent respectivement une lentille lacrymale négative et positive, en plus de l'astigmatisme induit. La modalité B sera donc, d'un point de vue optique, le meilleur choix de courbure pour diminuer les risques d'une surréfraction cylindrique avec une torique interne.

Conclusion

Cette étude démontre que des cinq types d'ajustements toriques internes réalisés, la lentille cambrée dans les deux méridiens est celle dont l'amplitude de la rotation a été la moins importante. Elle souligne aussi l'importance de l'action de la paupière supérieure ainsi que de la topographie cornéenne dans le comportement des lentilles cornéennes rigides à toricité interne. Par contre, d'autres recherches devraient être entreprises pour mieux comprendre l'effet des différents éléments impliqués dans la rotation des lentilles cornéennes toriques internes.

Les auteurs désirent remercier les laboratoires Blanchard et Sola / Barnes-Hind Canada qui ont gracieusement fourni les lentilles nécessaires à cette étude. Ils désirent également souligner la contribution financière du Fond de Fiducie des Optométristes Canadiens pour l'Education qu'ils tiennent à remercier.

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Ophthalmic Abstracts Abrégés ophtalmiques

Editors reviewing articles from recent issues of ophthalmic publications are identified as follows: (RC) Dr Ralph Chou; (LH) Dr Lorne Hart; (MP) Dr Mark Pogue; (MS) Dr Mitch Samek; (PS) Dr Pierre Simonet. Publication references are included for those wishing to read the complete paper discussed in the abstract.

Masking corneal toricity with hydrogels: does it work?

Bernstein, Gundel, Rosen: *International Contact Lens Clinic*, Vol 18, Nos 3,4 (March, April, 1991), p 67

This article describes a study done to determine if (and if so, how much) corneal toricity can be masked with hydrogel lenses. Three types of lenses were used, two of HEMA (CIBAsoft standard thickness, to determine if lens thickness could vary toricity masking), and one GMMA (CSI), to determine if the difference in material type makes a difference on the degree of toricity masking. In total, ten adapted hydrogel wearers were evaluated with all three types of contact lenses, all of which failed to mask corneal cylinder. It is concluded, therefore, that there is no fitting advantage for the low astigmat with either a different lens material or a different thickness to mask corneal cylinder. **(MP)**

Corneal trauma — classification and management

McMahon, R: *Journal of the American Optometric Association*, Vol 82, No 3, p 170

This article details a classification system for corneal trauma to assist in management decisions. The classification system is divided into three major categories: chemical burns, mechanical trauma and radiant energy burns.

Chemical burns are further divided into the more fast-acting alkali and acid burns. Treatment in both cases is copious irrigation with normal saline or water for at least 30 minutes.

Mechanical trauma is divided into three categories:

- penetrating corneal injuries
  - corneal abrasion: treatment involves examination for foreign body; topical antibiotic with re-examination in 24 to 36 hrs. If there is significant discomfort or concern that lid action may retard healing, a pressure patch may be applied;
  - corneal foreign bodies: treatment goals are to remove the foreign body, prevent infection, minimize scar formation and manage pain;
  - stromal punctures: may require microsurgery;
  - lacerations: may require patching or surgery depending on location and depth.
- perforating corneal injuries
  - corneal punctures;
  - corneal lacerations;
  - corneo-scleral lacerations;
  - corneal ruptures.

  In these cases, determination of visual acuity, followed by examination of the anterior segment and intraocular pressure measurements, is important. Caution must be exercised not to exert too much pressure on the globe. Occasionally, X-rays are necessary to determine the extent of damage and the possible presence of a foreign body.
- perforating scleral injuries
  - scleral punctures;
  - scleral lacerations;
  - scleral ruptures (as for corneal ruptures).

Radiant energy burns are also subdivided into three categories:

- thermal burns
  - infrared burns: ocular burns are classified like skin burns (1st and 3rd degree). Treatment consists of lubrication, patching, collagen shields, ointments, bandage, contact lenses and prophylactic drops;
  - microwave burns: uncommon, treated as thermal burns.
- ionizing radiation burns
  Uncommon, more resistant to healing and may require surgical keratoplasty.
- ultraviolet burns
  Caused by sunlamps, exposure to welder's flame, snow blindness. Symptoms usually delayed eight hours or more; supportive treatment with lubricant. **(MP)**

The eye in malignant hypertension

Williams, HW: *Clinical Eye — Vision Care*, Vol 2, No 4 (1990), p 172

Essential arterial hypertension is defined as an average of two diastolic blood pressure readings of 90 mmHg or greater or sustained systolic blood pressure of over 145 mmHg. Malignant arterial hypertension is defined as systolic blood pressure of 200 mmHg and diastolic pressure of 120 mmHg or higher on one occasion, along with damage to end organs such as exudates, hemorrhage or optic nerve edema in the eye. Papilledema is not always present. It is estimated that 28% of adults have arterial hypertension, of which 5% will progress to malignant hypertension in three to five years.

This article recommends ocular work-up in malignant hypertension to include best corrected acuities, anterior segment examination, tonometry, dilated fundus exam, photography, visual fields and fluorescein angiography if the patient can tolerate the procedure. Although the eye care practitioner cannot treat or allay ocular changes from malignant hypertension that have occurred, the practitioner can inform the attending physician of the risk of permanent vision loss if the blood pressure is dropped too rapidly, if the attending physician is unaware of this, which would seem unlikely. Also, no reason is given for the aggressive ocular work-up mentioned above as nothing can be done to treat or change any visual field or other anomalies, particularly in the periphery during the acute phase of the hypertensive episode. Perhaps this is more in keeping with a routine non-malignant hypertensive patient ocular examination procedure. **(MP)**

Task variables and visual discomfort associated with the use of VDTs

Collins, MJ; Brown, B; Bowman, KJ: *Optometry and Vision Science*, Vol 68, No 1 (January 1991), p 27

This article is of interest to the general optometric practitioner as we are constantly being asked if VDTs have a bad effect on our bodies, especially the eyes.

The authors investigated the different tasks a person performs during typical daily use of the VDT. Visual symptoms were recorded by the subjects for five consecutive working days. Also recorded were the visual tasks undertaken, time of work breaks, work pressure, work interest and personal moderating factors that may have influenced the symptoms recorded.

Results of the study suggest that VDT tasks are generally associated with more symptoms than non-VDT tasks. Data entry tasks tended to produce blurred vision, and increased work pressure generally increased symptoms.

It is important for optometrists to be aware that task-related variables can be significant factors in the cause of the symptoms reported by the population. **(LH)**

Clinical accommodation and heterophoria findings preceding juvenile onset of myopia

Goss, DA: *Optometry and Vision Science*, Vol 68, No 2 (February 1991), p 110

Goss looked at the accommodation and heterophoria findings preceding the onset of juvenile myopia.

In his ongoing study of myopia, Goss tested the hypothesis that accommodation and convergence differences precede the onset of myopia in children. He found that the children who developed juvenile onset myopia had lower positive relative accommodation, required more plus on the binocular cross-cylinder test and tended to be more esotropic or less exotropic than the children who remained emmetropic. Juvenile onset myopia is quite often preceded by measurable differences in accommodation and convergence functions. **(LH)**

Effectivity [*sic*] of contact lens disinfection systems against acanthamoeba culbertsoni

Connor, CG; Hopkins, SL; Salisbury, RD: *Optometry and Vision Science*, Vol 68, No 2 (February 1991), p 138

The authors tested 13 commercially available contact lens solutions for their ability to kill the cysts of acanthamoeba culbertsoni.

Miraflow was the most effective at killing the cyst (contains 20% isopropyl alcohol); following were the solutions containing thimerosal. Rigid gas permeable lens solutions in general were more effective than soft lens solutions.

The authors' data suggest that a combination of a good daily cleaner and disinfecting solution may be effective in reducing acanthamoeba exposure.

Generally, contact lens cleaners are quite effective at killing the cysts of acanthamoeba. The addition of either a soft or hard lens daily cleaner to the care regimen is likely to reduce substantially the number of cysts to which the disinfectant is exposed.

Hydrogen peroxide is not very effective against the cysts of acanthamoeba.

Heat with a daily cleaner should provide ideal acanthamoeba protection but heat is not compatible with all lenses on the market. **(LH)**

An analysis of nodular deposits on soft contact lenses

Begley, CG; Waggoner, PJ: *Journal of the American Optometric Association*, Vol 62, No 3 (March 1991), p 208

In this study, electron microscopy was used to determine the origin of white nodular deposits on contact lenses. Calcium was found in 69 of 72 nodular deposits. All deposits stained positively for lipids and polysaccharides were found in newer deposits.

This reviewer thinks that this may indicate that these nodules began as calcium, to which mucin then adheres. This article, unfortunately, does not give much help in aiding the reader to determine the origins or methods of preventing these deposits. **(MP)**

Children's sunglasses: caveat emptor

Werner, JS: *Optometry and Vision Science*, Vol 68, No 4 (April 1991), p 318

This is a timely clinical note since most optometrists are asked whether children should wear sunglasses and, if so, what type they can wear.

We now know that ultraviolet (UV) radiation is damaging to the eye's lens and retina. The damage can occur after short, intense exposure (e.g., during a solar eclipse or under a sun lamp) or may be cumulative after a lifetime's exposure to direct sunlight.

Children need UV protection because, as the author states, children are customarily outdoors much more than adults. Long life increases the cumulative effect and the crystalline lens of a child's eye transmits more short wavelength visible radiation and UV to the retina than does the lens of an adult.

Spectral absorbance measurements were made for 40 different types of children's sunglasses, obtained mostly from discount vendors and chain stores.

The data from the sample of sunglasses indicate that adequate protection is not provided by many currently available products designed for children. Labels attached to many of the glasses are, at best, ambiguous and, in some cases, quite misleading. So tell your patients to be very careful when deciding the type of sunglasses they buy. Their best source of information is still their optometrist. **(LH)**

Bioptic telescopic spectacles for motor vehicle driving

Barron: *Journal of the American Optometric Association*, Vol 62, No 1 (January 1991), p 37

This article details the use of telescopes by visually impaired individuals to aid in driving.

There are no uniform visual standards in the US for driving. In 1925, the American Medical Association (AMA) recommended an acuity of 6/12 (20/40). However, 12 states use a standard of 6/13.5 (20/45) to 6/21 (20/70); over half the US states have no specified field requirement.

The United States has two special categories of licence. One restricted class is for those with an acuity of 6/12 (20/40) to 6/21 (20/70) and imposes restrictions like daytime driving only, or no highway driving. There is also a bioptic telescope spectacle (BTS) licence permitted by 29 states. The telescope is placed in the superior position of a plastic carrier lens. The

wearer tilts his or her head down and sights signs through the telescope. The loss in visual field can be compensated for by fitting the telescope monocularly so that the fellow eye can compensate.

A number of studies of accident rates have been done on BTS users, compared to normally sighted drivers. In some studies, BTS drivers had slightly more accidents and, in others, slightly fewer accidents than the normally sighted drivers. BTS drivers had fewer accidents than normally sighted male drivers under 39 years of age, and fewer than drivers with other handicaps (e.g., deafness or a physical disability).

Studies have been done to correlate the accident rate with various measures of visual function. Surprisingly, in general it appears that the better the driver's visual function, the *greater* the accident rate, which suggests that judgement plays a greater role than good vision in safe driving.

Fonda suggests that eye care professionals be allowed to determine the specific conditions defined for a restricted licence, although others suggest that monocular BTS drivers be licensed.

Clearly, a coherent vision standard for visually impaired drivers needs to be established. **(MP)**

Book Reviews Lu pour vous

Principles and Practice of Pediatric Optometry, *by A Rosenbloom, M Morgan. 1990, JB Lippincott. 608 pp, illustrated. US$59.50*

This book was created to provide current information about infants and children to optometrists in primary care practice. It was the intention of the authors, as stated in the preface, to emphasize the first six years of life.

Several different contributors have prepared the chapters of the book, each presenting information in his or her area of expertise. There are three general divisions to the text.

The first section, concerned with growth and development, is less clinical in nature, giving a general overview of infant and child development and a detailed account of optical and neural development of the eye. It also provides information on visuomotor skills, the role of genetics in congenital ocular disorders and the refractive status of infants and children.

Issues in the clinical diagnosis and management of pediatric patients are addressed in the second section of the book. A description of the pediatric eye examination begins this section, summarizing useful clinical techniques and hints for working with children. Discussion of binocular vision anomalies is emphasized. Special considerations in the provision of appropriate spectacle correction for children and the indications for contact lenses are also presented. There is a brief review of pharmaceutical agents and ocular and systemic diseases of children.

In the third section of the book, the principles of sections one and two are applied to the management of special cases such as visually impaired children, exceptional children, aphakic neonates and learning-disabled children. Colour vision deficiencies, vision screening programs, ocular emergencies and reading disabilities are summarized.

This book is not a "how-to" text; much valuable information and excellent reviews of important topics are provided; however, the clinical application of such information is not emphasized in many cases. Unfortunately, only the "special cases" in section three are presented in a way that defines the role of the optometrist as part of the education and health care team. The book as a whole does not concentrate on the 0- to 6-year age group and doesn't suggest that an optometrist, in a primary care private practice, can contribute to answering the question "Is this child developing normally?"

For practitioners who regularly see school-aged children, this book is a valuable reference. It also could be an appropriate text for pediatric optometry courses when supplemented by the "how-to" aspects of patient diagnosis and management.

C Chiarelli, OD
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The Eye in Systemic Disease, *by JJ Kanski, DJ Thomas. 1990, Butterworth-Heinemann. 161 pp, illustrated. US$80*

Jack Kanski, an ophthalmologist, and Dafydd Thomas, a neurologist, have written this book for the general physician to describe ocular disorders associated with some common systemic diseases. There is a comprehensive discussion of endocrine disorders (thyroid, diabetes), circulatory problems (hypertension, carotid artery disease), neurological disturbances (EOM palsies, visual field defects, headache), and rheumatological and pulmonary disease. A briefer mention is made of skin, connective tissue, gastrointestinal and blood disorders, as well as malignancies, the phacomatoses, systemic drug toxicity and sexually transmitted diseases.

Each individual condition is presented in similar fashion:

- introductory definition;
- systemic features;
- current methods of diagnosis and treatment;
- ocular features and their management.

Numerous photographs and illustrations are included in every section.

The ocular complications are described in relatively basic terms. Details of etiology and pathogenesis, as found in Kanski's *Clinical Ophthalmology* text, are not found here. Recommendations for management of ocular disorders are addressed to the general physician and, therefore, are not always applicable in an optometric practice. What this book does provide, however, is current and more detailed information concerning the laboratory tests done when a particular systemic disorder is suspected.

This book will enable the optometrist to recognize patients with systemic disease more easily on the basis of their eye signs, and to make more appropriate referrals of these patients.

C Chiarelli, OD
Vision Institute, Toronto

Ophthalmology — A Diagnostic Text, *by WH Coles. 1989, Williams and Wilkins. 402 pp. $38.25*

As stated in the preface of this book, the text is intended as a primer for the non-specialist (i.e., student, resident and non-ophthalmology physician). I would add that this text is still valid, nonetheless, for the practising optometrist and ophthalmologist. The book is not so basic in knowledge as to be redundant, and yet is not so highly specialized and esoteric as to be complex.

The emphasis of the text is on diagnosis, not on treatment. To that aim, the book is divided into two parts. Part one addresses the various components of an oculovisual assessment — from the cornea and adnexa to the retina and neuro-ophthalmology. The basic didactic structure is the presentation of the symptoms and signs (clinical appearance and characteristics) of various disease processes followed by the clinical course and prognosis. Where appropriate, the differential diagnosis of a particular disorder is included, although I would have liked to see the concept integrated more throughout the text.

The section on herpes simplex infection is well written, but the section on AIDS is scanty. Considering that the book was just recently published, this section should be expanded to bring it up to date.

The glaucoma chapter is comprehensive and well documented with diagrams. Even angle recession due to blunt trauma, which results in traumatic glaucoma, is pictured.

The chapter on the retina has some interesting diagrams on retinal detachment. This chapter, though, could be expanded to include more detail, especially when one considers the volumes that have been written on this topic.

The chapter on neuro-ophthalmology is very nicely presented with lots of diagrams (including anatomical and physiological ones) which aids in the pedagogical aim of the section. Again, the emphasis is on diagnosis, and this shows through. Diagnosis means pinpointing the type of disorder and, by definition, its cause or etiology (if one is known).

The chapter on tumours is fairly well documented and includes many tables on differential diagnosis. The text emphasizes the use of ultrasound (A-scan and B-scan) and CT scans for diagnosis of tumours (i.e., to differentiate between choroidal hemangioma and melanoma).

The only real downfall of the book is its chapter on refraction. This chapter is relegated to the very end of part one and, in its present form, should have been omitted from the book. The chapter includes basic concepts on image formation. However, to try to present a section on optics of the human eye in just seven pages is asking too much.

Part two of the book contains chapter 16, "Essential Topics and Definitions". This section could be a book all by itself (it covers 144 pages). This chapter is a huge, very detailed glossary of terminology and topics (diseases) present in the provision of eye care. Some portions are structured similarly to that in part one, and one wonders why this information was not included in part one. Nonetheless, loads of information is presented in part two, including some diagrams and photographs.

Some interesting topics are presented in part two — for example, Lyme disease, Waardenburg's syndrome, CHARGE syndrome, pseudofacility, Uhthoff's phenomenon and Sampaolesi's line. This very brief sampling illustrates the diversity and breadth of the topics covered.

Overall, this book is well worth reading and using as a ready reference for optometric practice. The emphasis on diagnosis is the key strength of the text. This book is one of those rare ones written with the reader in mind, and I strongly recommend it to all optometrists.

HA Kader, BSc, MSc, OD
Scarborough, ON

Computers and Visual Stress, *by EG Godnig, JS Hacunda. 1990, Seacoast Information Services, Charleston, RI. 108 pp. US$8.95*

The title of this book should elicit curiosity among most VDT workers. Optometrists are very well acquainted with this topic since more and more of their patients are computer users. This pocket book attempts to provide some general information on the subject. I read it in less than an hour and found it to be elementary and superficial.

There are six chapters. The authors emphasize behavioral optometry throughout the book. The main message, however, is that *only* behavioral optometrists possess the unique skills needed to deal with visual stress. Chapter five describes some of the tests used by the so-called behavioral vision care practitioners. Indeed all these tests have been embraced by the Optometric Extension Program for decades for dealing with vision problems other than visual stress related to VDTs. Optometrists will experience a sense of déjà vu.

It appears that disciples of Dr Skeffington are still beating the same drum in this day and age. However, knowledge in visual science has progressed much more rapidly than the doctrines of the Optometric Extension Program. The lay reader can get much more in-depth information on this subject from a variety of government and professional sources.

Although the title is catchy, this book proves to be disappointing. This reviewer does not recommend the purchase of this book by anybody.

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Uniform requirements for manuscripts submitted to optometric journals

The International Style Guide Committee for Uniform Submissions to Optometric Journals

I. Introduction

In May 1987, a number of optometric editors and writers met in St Louis, Missouri, to develop a standard set of publication guidelines for optometric journals. The journals listed at the end of this manuscript have endorsed these guidelines.

Optometric journals generally publish original contributions pertaining to clinical and theoretical optometry. Manuscripts are usually considered for publication only if they are original contributions and have not been submitted for publication elsewhere.

Manuscripts submitted for consideration for publication are evaluated by any or all of the following: (1) journal editor; (2) members of a peer review board; and (3) two or more independent referees who are specially selected as nationally recognized experts in the subject area of the manuscript. Referees judge the manuscript on one or more of the following criteria:

A. usefulness to the practising optometrist;

B. compliance with the editorial standards and objectives of the journal with regard to the originality of the contribution, clinical or scientific significance to the profession and suitability of the subject matter;

C. enrichment of the optometric and other scientific literature. Optometric journals generally publish six basic types of manuscripts:

1. research reports
2. clinical procedures
3. case reports
4. literature review
5. practice management manuscripts
6. editorials

II. Research manuscript

A. Title

The title should be concise, meaningful and clear. It generally should not be in the form of a complete sentence. Subtitles may be used whenever needed for specific purposes relating to the title or text. Titles should indicate the content of the manuscript, serve as a guide to reference librarians and facilitate communication.

B. Author(s)

The name(s) of the author(s) should be typewritten and centred, one double space below the title. Proper names should be in capital and lower case letters, and the appropriate academic degree(s) should be indicated. Some journals include membership designations (e.g., FAAO, FCOVD, FBCO). In a multi-authored manuscript, the person should be listed first who has made the most significant intellectual contribution to the work regardless of academic rank or professional status. This list should include only those who have made a substantial contribution to the design and execution of the work and the writing of the manuscript. Authors should identify the name and address of the author to whom correspondence should be sent.

C. Abstract

Authors are required to submit abstracts with their papers. The abstract should be typed on a separate sheet of paper in one paragraph and it should not exceed 100 words. Abstracts should be as informative as possible and should contain statements regarding the nature of the problem studied, method, results and conclusions.

D. Key words

Authors should select key words (about 5) that reflect the primary subject matter of the paper. The purpose of key words is to assist reference librarians and others in retrieval and cross-indexing.

E. Text

The goal of scientific writing is effective communication. More specifically, its goal is to communicate abstract propositions, logical arguments, empirical observations and experimental results including their interrelations and interactions.

Authors should use the active voice ("This study shows" rather than "It is shown by this study") and the first person ("I did" rather than "the author did"). The past tense is appropriate for describing what was done in an experiment; the present tense is suitable for referring to data in tables and figures.

Lens formulas and associated acuities should be expressed as in the following example: OD: +2.25 - 1.00 X 95, 20/20 (6/6).

Generic drug names should be used, followed by the proprietary name in parentheses at the first mention. Acronyms and abbreviations should always be spelled out at first mention.

Symbols and diacritical marks, when used, must be clearly drawn and identified in pencil in the margin, for example, "prism dioptre sign".

Manuscripts should be organized within the framework of a formal outline. The standard outline for scientific reporting of studies, experiments or other research projects is as follows:

1. Introduction

The introduction has several functions. It acquaints the reader with other relevant work performed in the subject area. Only contributions that bear on the interpretation of the results should be referenced. The introduction also presents the general nature of the problem to be addressed, the specific aspect of the problem that was studied and the hypothesis and the manner in which it was tested.

2. Methods

The methods should be described in enough detail so that others could replicate them. However, if portions of the methods have been described elsewhere, a summary with appropriate citations is sufficient. It is essential to describe how case and control subjects were selected for study. It is important to describe any commercially available apparatus used in the study by identifying the manufacturer's name and address. Brief descriptions of methods that have been published but may not be understood universally should be presented. In addition, limitations of the methods used should be presented, and new or modified methods should be described in detail.

It is important to identify all contact lenses, chemicals, drugs or ophthalmic lenses, including generic names, dosages and administration where appropriate. It is inappropriate to publish names of subjects or patients, their initials or other personal identification. Also, it is inappropriate to use ethnic terms when

they serve only to perpetuate unnecessary, unscientific or derogatory connotations.

3. Results
The results should be presented in a logical order, emphasizing only the important findings of the study without elaboration. Limitations of the results and any implications should be stated. The statistical analysis, if any, should be clear and relevant.

4. Discussion
The discussion should elaborate on the data, noting the interrelations among the results and relating them to the original question asked in the study. Acceptance or rejection of the hypothesis should be stated. In addition, the discussion should emphasize any unique or new aspects of the study and discuss the relevancy of the results.

It is important to draw only those conclusions that can be supported by the results. Implications for basic and applied issues should be stated wherever possible.

F. Acknowledgements
Only those who have made a substantial contribution to the study should be acknowledged. Authors are responsible for obtaining written permission from those acknowledged by name, because readers may infer that acknowledged persons have endorsed the methods and conclusions of the manuscript. Many contributions justify acknowledgement, but not authorship. Such contributions might include acknowledgement of technical help, financial support, sources of materials and persons who have contributed intellectually to the development of the manuscript. Also, any financial relation that might be interpreted as a conflict of interest must be acknowledged.

G. References
A list of references is placed at the end of the manuscript after the corresponding author's address. References should be listed in sequential order as they are cited in the text by superscript numbers. Accuracy of citations is of major importance because it makes each specific reference retrievable by the reader. Authors should make every attempt to cite references that are relevant, original and current, and only references actually consulted. Manuscripts that have been accepted for publication but not yet printed should be cited in the footnote section. Manuscripts that have been submitted for consideration for publication, but have not been accepted, should not be referenced. The list of references should be checked for accuracy against the original publications.

Most optometric journals have adopted the style for references used by the US National Library of Medicine in *Index Medicus*. The titles of publications should be abbreviated according to the style used in *Index Medicus*. A list of abbreviated names of frequently cited publications is printed annually in the January issue of *Index Medicus* as the "List of the Journals Indexed".

Examples of the correct form of referencing are listed below:

Journal articles

1. Standard journal article
   (List all authors when six or less; when seven or more, list only the first three and add et al.)
   Alpar AJ. Botulinum toxin and its uses in the treatment of ocular disorders. Am J Optom Physiol Opt 1987 Feb;64(2): 79–82.
2. No author given
   Anonymous. The OD-MD conflict: economic welfare. Optom Manag 1982 Jul;18(7):23–7.
3. Journal paginated by issue
   Kloos S. How do TPAs impact practice? Optom Manag 1987 Apr;23(4):14–21.

Books and other monographs

4. Personal author(s)
   Taylor S, Austen DP. Law and management in optometric practice. London: Butterworths, 1986.
5. Editor(s), compiler(s), chair(s) as author(s)
   Bartlett JD, Jaanus SD, eds. Clinical ocular pharmacology. Boston: Butterworths, 1984.
6. Chapter in book
   Mondino BJ. Bullous diseases of the skin and mucous membranes. In: Duane T, ed. Clinical Ophthalmology, vol. 4. Hagerstown, MD: Harper & Row, 1980:1–16.
7. Published proceedings paper
   Norden CN, Leach NA. Calibration of the ERG stimulus. In: Lawville T, ed. Proceedings of the XIV Annual Symposium of the International Society for Clinical Electroretinography (ISERG). Doc Ophthalmol Proc, series 12, XIV ISERG Symposium, May 10–14, 1977. Louisville: XIV Annual Symposium of the ISERG, 1977:393–403.
8. Monograph in a series
   Wurster U, Hoffman I. Influences of age and species on retinal lactate dehydrogenase isoenzymes. In: Hockwin O, ed. Gerontological Aspects of Eye Research. New York: S Karger, 1978:26–39 (von Hahn HP, ed. Interdisciplinary Topics in Gerontology, vol 13).
9. Agency publication
   United States Department of Health and Human Services. Fifth Report to the President and Congress on the Status of Health Personnel in the United States: Optometry, March 1986. Springfield, VA: United States Department of Commerce. National Technical Information Service, 1986; DHHS publication no. HRS-P-OD-86-1.
10. Footnotes
    Optometric journals discourage excessive or improper use of footnotes, but realize that on specific occasions, they may be acceptable. Footnotes can be used to designate a non-retrievable citation, a personal communication or the institutional affiliation of the author. A footnote can also be used to identify sources of equipment or instruments. Footnotes should be identified with small superscript lower case letters in alphabetical order in the text and referred to at the end of the text of the manuscript under a listing "Footnotes".

III. Clinical procedures manuscript

This type of manuscript generally describes a procedure method or technique useful to the practising clinician. It can also review a body of literature on a specific clinical subject for the purpose of providing the practitioner with sound guidelines or recommendations regarding the subject matter. Headings for the clinical procedures paper do not usually follow the standard format for a research paper, but the author should use headings and subheadings that promote understanding of the topic.

IV. Case reports

Case reports describe a case, or a series of cases, in which something new or unusual is presented. This could involve clinical findings, diagnosis or management. The subheadings

are: (1) Abstract; (2) Introduction; (3) Case report(s); and (4) Discussion.

Other types of case reports may be submitted in different formats, and authors should consider that innovative formats may accomplish the goal of sharing knowledge and information in a readily understandable manner.

V. Literature reviews

The purpose of the review is to analyze, consolidate and synthesize the literature on a subject of interest. Topics should be relevant to the journal's readers. A review can make an important contribution to the literature by arriving at a supportable conclusion. Headings for the literature review do not usually follow the standard format (research manuscripts), but the author should use headings and subheadings that promote understanding of the topic.

VI. Practice management manuscripts

Topics should be selected that would enhance the efficiency of patient care and promote sound practice administration. Abstract, key words and references are not necessary; however, headings and subheadings that facilitate understanding of the topic should be used.

VII. Editorials

An editorial is generally a concise article consisting of a critical argument or personal opinion, or highlighting an important issue. An editorial does not necessarily depend upon literature support. Letters to the editor are encouraged by most journals.

VII. Tables, figures and appendices

A. Tables

Each table should be typed double-spaced on a separate page. Tables are usually not submitted as photographs. Tables should appear in consecutive order in the text designated by Arabic numerals (example: Table 1). Locations of tables within the body of the text should be specified in the manuscript. An appropriate table title should be on the same page as the table to which it applies.

B. Figures

All figures, whether line drawings, black-and-white photographs, colour photographs or 35-mm slides, should add to the presentation of a manuscript.

All figures should be of professional quality, whether they are drawings or photographs. Most computer-generated "drawings" are unacceptable. Figures should be submitted as 5 X 7 inch (13 X 18 cm), black-and-white or colour, glossy prints.

All figures, whether line drawings, black-and-white photographs or colour photographs, should be designated as "Figures". They should be numbered consecutively in Arabic numerals throughout the text of the manuscript (example: Figure 3). Locations of figures within the body of the text should be specified in the manuscript.

1. Legends

The numbers and captions should be typewritten, double-spaced, in paragraph form and on a separate sheet of paper. Legends for several figures should be typed on a single sheet of paper. Legends should be kept as short as possible and should not contain explanatory notes that duplicate the explanation in the text. All internal labels in the figure should be identified in the figure legend.

2. Labels

Authors should label figures adequately. On the back of each print, the author should place a label that indicates the name of the author, the title of the article, the figure number and the direction of the top of the figure. When labelling slides, clearly label with author's name, figure number and a red mark to indicate the upper right hand corner for viewing the slide, not projecting the slide. To facilitate the review process, the authors should submit an original and three copies of each line drawing, photograph or slide.

C. Appendices

Occasionally it is necessary for the author to supply subordinate information that is relevant to the study but that might distract the reader because of excessive detail; for example, computer programs, mathematical formulae, address lists, surveys or other data that might be cumbersome to present in the text. Appendices should be labelled Appendix A, Appendix B, Appendix C, etc. Each should have a short, descriptive title.

IX. Submitting the manuscript

A. General guidelines

The manuscript should be typed double-spaced on a heavy grade of white bond 21.6 X 27.9 cm (8 1/2 X 11 inch) or ISO A4 21.2 X 29.7 cm with margins of at least 2.5 cm (1 inch). Print quality should be highly legible. For reviewing purposes, the original plus three photocopies of the manuscript should be submitted along with the original plus three high-quality duplicates of each figure and table. All pages should be numbered consecutively, beginning with the title page. The author's (authors') name(s) should appear only on the title page.

A cover letter should accompany all manuscripts and the letter should identify the corresponding author. The cover letter should also contain a statement that the manuscript has been approved by all of the authors of a multi-authored paper. In addition, the letter should indicate the type of article and whether or not the work has been submitted to other publications. Copies of letters of permission and other pertinent information should be included.

Authors should arrange manuscript pages as follows:

1. first page: title, name(s) of author(s), degrees and institutional affiliation(s), if any
2. second page: abstract and key words
3. text (start on a new page)
4. acknowledgements (start on a new page)
5. footnotes (start on a new page)
6. references (start on a new page)
7. appendices (start on a new page)
8. tables (each on its own page)
9. figure legends (all on one page, if possible)
10. figures (each separately)

B. Mailing instructions

Protection of manuscripts from rough handling while in transit is necessary. The mailing envelopes should be strong and provided with stiff cardboard or corrugated fillers slightly smaller than the envelope. Fillers are essential if drawings or photographs are to be enclosed. Authors should always retain copies of their manuscript as a precaution against the potential loss of originals. Manuscripts should be mailed to the appropriate editorial office of the journal.

Endorsements

The journals listed here will receive and consider for publication a manuscript prepared in accordance with these

guidelines. Their editors may elect to make changes in editorial style prior to publication, but the original papers as submitted will not be returned to authors for changes before review.

Use of "Uniform Requirements for Manuscripts Submitted to Optometric Journals" has been endorsed by the following journals: *Canadian Journal of Optometry, Clinical and Experimental Optometry, International Contact Lens Clinic, Journal of the American Optometric Association, Journal of Optometric Education, Journal of Optometric Vision Development, Journal of Vision Rehabilitation, Ophthalmic and Physiological Optics, Optometric Management, Optometry and Vision Science* and *Southern Journal of Optometry.*

Copyright Release

To encourage general adoption of these guidelines, the Committee grants copyright permission to reprint this paper from the *Journal of the American Optometric Association* or the *American Journal of Optometry and Physiological Optics.*

Jimmy D Bartlett, OD, Chairman; Brian Brown, PhD; Milton J Eger, OD; Merton C Flom, OD, PhD; Bernard Gilmartin, PhD, FBCO; John R Griffin, OD, MSEd; Henry W Hofstetter, OD, PhD; William M Lyle, OD, PhD; Meredith W Morgan, OD, PhD; John W Potter, OD; Beverly Sanders, MA; and Theresa E Wood, BA.

Exigences uniformes pour les manuscrits présentés aux revues en optométrie

Le Comité sur le protocole international des textes présentés aux revues en optométrie

I. Introduction

En mai 1987, bon nombre de rédacteurs et de rédacteurs en chef dans le domaine de l'optométrie se sont réunis à St Louis (Missouri) afin d'élaborer un protocole pour les revues en optométrie. Les revues qui apparaissent à la fin du présent document ont adopté ce protocole.

Les revues en optométrie publient généralement des textes qui contribuent de façon originale à l'optométrie clinique et théorique. La rédaction envisage habituellement de publier seulement les contributions originales qui n'ont pas été présentées pour publication dans d'autres revues.

Les manuscrits présentés pour publication sont évalués par au moins l'une des personnes suivantes : (1) le (la) rédacteur(trice) en chef de la revue; (2) les membres d'un conseil de révision composé de pairs; et (3) au moins deux juges indépendants qui sont choisis spécialement parce que ce sont des spécialistes de renommée nationale dans le domaine dont le manuscrit traite. Ces derniers jugent le manuscrit selon au moins l'un des critères suivants :

A. l'utilité pour l'optométriste en exercice;

B. la conformité aux normes de rédaction et aux objectifs de la revue quant à l'originalité de la contribution, son importance clinique ou scientifique pour la profession et l'opportunité du sujet;

C. enrichissement à la documentation en optométrie et dans d'autres domaines scientifiques. Les revues en optométrie publient généralement six genres de manuscrits :

1. des rapports de recherche
2. des méthodes cliniques
3. des exposés de cas
4. des études documentaires
5. des manuscrits sur la gestion de la profession
6. des éditoriaux

II. Le Manuscrit de recherche

A. Titre

Le titre doit être concis, clair et explicite. En général, ne pas faire de phrase complète. Employer des sous-titres à des fins spéciales touchant au titre ou au texte. Le titre doit indiquer le contenu du manuscrit, servir de référence pour les bibliothécaires et faciliter la communication.

B. Auteur(s)

Le nom de l'auteur (des auteurs) doit être dactylographié, à double interligne, au centre, sous le titre. La première lettre des noms propres doit être en majuscule et les autres en minuscules, et mentionner les diplômes reçus. Certaines revues ajoutent les associations auxquelles l'auteur (les auteurs) fait (font) partie (p. ex., FAAO, FCOVD, FBCO). S'il y a plusieurs auteurs, le nom qui apparaît le premier est celui de la personne qui a apporté la contribution intellectuelle la plus importante au travail, peu importe ses diplômes ou son statut professionnel. Cette liste doit porter le nom des seules personnes qui ont fait une contribution réelle à la conception, à l'exécution du travail et à la rédaction du manuscrit. Donner le nom et l'adresse de l'auteur à qui la correspondance doit être envoyée.

C. Résumé

L'auteur doit remettre un résumé du manuscrit. Le résumé doit être tapé sur une feuille distincte, en un seul paragraphe, et ne doit pas dépasser 100 mots. Le résumé doit fournir le plus d'information et expliquer la nature du problème étudié, la méthode, les résultats et les conclusions.

D. Mots clés

L'auteur doit choisir des mots clés (environ 5) qui reflètent le sujet premier du manuscrit. Les mots clés aident les bibliothécaires de référence et autres à faire des renvois et des recherches documentaires.

E. Texte

La rédaction de textes scientifiques vise une bonne communication. Tout particulièrement, son but consiste à communiquer des propositions abstraites, des arguments logiques, des observations empiriques et des résultats expérimentaux, y compris leurs interrelations et interactions.

Employer la voix active («cette étude démontre» plutôt que «il est démontré dans cette étude») et la première personne («j'ai fait» plutôt que «l'auteur a fait»). Utiliser le passé pour décrire une expérience; employer le présent pour faire référence à des données dans des tableaux et des figures.

Les formules de prescriptions de lentilles et les acuités visuelles associées peuvent être indiquées comme dans l'exemple suivant : OD: +2.25 - 1.00 X 95, 20/20 (6/6).

À la première mention d'un médicament, donner sa dénomination commune, suivie de son nom déposé entre parenthèses. Toujours déterminer les acronymes et les abréviations qui sont mentionnés pour la première fois.

Bien dessiner et identifier au crayon dans la marge les symboles et les signes diacritiques; par exemple, «signe du prisme dioptrie».

Organiser les manuscrits selon un plan bien structuré. Le plan normal des rapports scientifiques, études, expériences ou autres projets de recherche, est le suivant :

1. Introduction

L'introduction a plusieurs fonctions. Elle fait connaître aux lecteurs d'autres travaux pertinents dans le domaine étudié. Faire référence aux seuls travaux qui aident à interpréter les résultats. L'introduction présente aussi la nature générale du problème à considérer, l'aspect particulier du problème qui a été étudié, et l'hypothèse et la façon dont elle a été testée.

2. Méthodes

Décrire les méthodes suffisamment dans le détail pour qu'elles puissent être reprises. Toutefois, si une partie des méthodes a été décrite ailleurs, il suffit de les résumer en les accompagnant des citations appropriées. Il est primordial de décrire le mode de sélection des sujets étudiés et des sujets témoins. Donner le nom et l'adresse du fabricant de tout appareil disponible sur le marché qui a servi à l'étude. Décrire brièvement des méthodes qui ont été publiées mais qui ne sont peut-être pas comprises universellement. De plus, décrire les limites des méthodes employées et donner en détail de nouvelles méthodes ou des méthodes modifiées.

Il est important d'identifier toutes les lentilles cornéennes, produits chimiques, médicaments ou verres correcteurs, y compris leur dénomination commune, la posologie et

l'administration, au besoin. Il est déplacé de publier les noms de sujets ou de patients, leurs initiales ou tout autre moyen permettant de les identifier. Il n'est pas non plus correct d'employer des termes ethniques qui ne servent qu'à perpétuer des connotations dérogatoires, non nécessaires et non scientifiques.

3. Résultats
Présenter les résultats dans un ordre logique, en soulignant seulement les résultats importants de l'étude, sans élaborer. Mentionner les limites des résultats et leurs conséquences. L'analyse statistique, au besoin, doit être claire et pertinente.

4. Discussion
La discussion doit porter sur les données, notant les relations entre les résultats et les reliant à la question étudiée. Dire si l'hypothèse est acceptée ou rejetée. Souligner aussi tout aspect nouveau ou unique à l'étude, et discuter de la pertinence des résultats.

Il est important de porter seulement les conclusions qui peuvent être appuyées par les résultats. Donner, dans la mesure du possible, les conséquences de questions appliquées ou de base.

F. Remerciements
Remercier seulement les personnes qui ont fait un apport considérable à l'étude. Obtenir le consentement écrit des personnes dont le nom apparaît, parce que les lecteurs pourraient croire que ces personnes appuient les méthodes et les conclusions contenues dans le manuscrit. Bien des contributions justifient des remerciements, mais pas la qualité d'auteur. Ces contributions peuvent comprendre une aide technique, une aide financière, des sources de documentation et un apport intellectuel à la conception du manuscrit. De même, souligner tout lien financier qui pourrait constituer un conflit d'intérêt.

G. Références
Mettre la liste des références à la fin du manuscrit, après l'adresse de l'auteur qui recevra la correspondance. Les références doivent apparaître selon l'ordre dans lequel elles sont citées dans le texte par un chiffre mis en exposant. Il est très important que les citations soient exactes pour que les lecteurs puissent les retrouver facilement. Essayer de citer des références qui sont pertinentes, originales et actuelles, et seulement les références consultées. Citer dans une note de bas de page les manuscrits qui ont été acceptés pour publication mais qui ne sont pas encore imprimés. Ne pas citer les manuscrits présentés pour publication mais qui n'ont pas été acceptés. Vérifier l'exactitude des références d'après les documents originaux.

La plupart des revues en optométrie ont adopté le protocole qu'emploie la National Library of Medicine des États-Unis dans son *Index Medicus*. Le titre des publications doit être abrégé selon le protocole employé dans *Index Medicus*. La liste des noms abrégés des publications qui apparaissent souvent dans la revue est publiée tous les ans, dans le numéro de janvier d'*Index Medicus*, et s'intitule «List of the Journals Indexed».

Voici des exemples de références exactes :

Articles de revue

1. Article normal
   (S'il y en a six ou moins, mentionner tous les auteurs; s'il y en a sept ou plus, mentionner seulement les trois premiers et ajouter «et al.»)
   Alpar AJ. Botulinum toxin and its uses in the treatment of ocular disorders. AM J Optom Physiol Opt 1987 Feb;64(2): 79–82.
2. Auteur anonyme
   Anonyme. The OD-MD conflict: economic welfare. Optom Manag 1982 Jul;18(7)23–7.
3. Revue publiée par numéro
   Kloos S. How do TPAs impact practice? Optom Manag 1987 Apr;23(4):14–21.

Livres et autres monographies

4. Auteur(s) à titre personnel
   Taylor S, Austen DP. Law and management in optometric practice. London: Butterworths, 1986.
5. Auteur(s) compilateur(s), rédacteur(s) ou président(s) de comité
   Bartlett JD, Jaanus SD, eds. Clinical ocular pharmacology. Boston: Butterworths, 1984.
6. Chapitre d'un livre
   Mondino BJ. Bullous diseases of the skin and mucous membranes. In: Duane T, ed. Clinical Ophthalmology, vol. 4. Hagerstown, MD: Harper & Row, 1980:1–16.
7. Compte rendu publié
   Norden CN, Leach NA. Calibration of the ERG stimulus. In: Lawville T, ed. Proceedings of the XIV Annual Symposium of the International Society for Clinical Electroretinography (ISERG). Doc Ophthalmol Proc, series 12, XIV ISERG Symposium, May 10–14, 1977. Louisville: XIV Annual Symposium of the ISERG, 1977:393–403.
8. Monographie dans une collection
   Wurster U, Hoffman I. Influences of age and species on retinal lactate dehydrogenase isoenzymes. In: Hockwin O, ed. Gerontological Aspects of Eye Research. New York: S Karger, 1978:26–39 (von Hahn HP, ed. Interdisciplinary Topics in Gerontology, vol 13).
9. Publication d'un organisme
   United States Department of Health and Human Services. Fifth Report to the President and Congress on the Status of Health Personnel in the United States: Optometry, March 1986. Springfield, VA: United States Department of Commerce. National Technical Information Service, 1986; DHHS publication no. HRS-P-OD-86-1.
10. Notes au bas des pages
    Les revues en optométrie désapprouvent l'abus ou la mauvaise utilisation des notes au bas des pages, mais les acceptent, dans certaines circonstances. Utiliser les notes au bas des pages pour donner une citation introuvable, une communication personnelle ou l'affiliation de l'auteur à un organisme. Employer aussi la note au bas des pages pour donner la source d'équipement ou d'instruments. Identifier les notes au bas des pages par une minuscule mise en exposant en ordre alphabétique dans le texte, et faire un renvoi à la fin du texte sous «Notes au bas des pages».

III. Les Méthodes cliniques

Ce genre de manuscrit décrit en général une méthode ou une technique utile aux cliniciens en exercice. Il peut aussi examiner la documentation publiée sur un sujet clinique particulier afin de donner aux praticiens des lignes directrices ou des recommandations logiques concernant ce sujet. Les chapitres des documents cliniques ne suivent habituellement pas la forme normale des documents de recherche, mais l'auteur doit employer des titres et des sous-titres pour faciliter la compréhension du sujet.

IV. Exposés de cas

L'exposé de cas décrit un cas, ou plusieurs cas, présentant quelque chose de nouveau ou d'inhabituel. Il peut s'agir de

résultats cliniques, d'un diagnostic ou de gestion. Les sous-titres sont les suivants : (1) résumé; (2) introduction; (3) exposé(s) de cas; et (4) discussion.

Il est possible de présenter d'autres genres d'exposés de cas et l'on doit se rappeler qu'une forme nouvelle peut réussir à faire connaître facilement des connaissances et des informations.

V. Études documentaires

L'étude documentaire vise à analyser, consolider et synthétiser la documentation publiée dans un domaine d'intérêt donné. Les sujets doivent répondre aux intérêts des lecteurs de la revue. Une étude documentaire peut contribuer largement à la documentation si elle tire une conclusion appuyée. Les titres des études documentaires ne suivent habituellement pas la forme normale (manuscrits de recherche), mais l'auteur doit employer des titres et des sous-titres qui facilitent la compréhension du sujet.

VI. Manuscrits sur la gestion de la profession

Choisir des sujets qui amélioreront les soins aux patients et favoriseront une administration logique de la profession. Les résumés, mots clés et références ne sont pas nécessaires; toutefois, employer des titres et des sous-titres qui facilitent la compréhension du sujet.

VII. Éditoriaux

Un éditorial est généralement un article concis, composé d'un argument critique ou d'une opinion personnelle, ou soulignant une question importante. L'éditorial n'est pas nécessairement appuyé par la documentation. La plupart des revues encouragent les lecteurs à leur écrire.

VIII. Tableaux, figures et annexes

A. Tableaux

Dactylographier chaque tableau à double interligne sur une feuille distincte. Ne pas présenter de tableaux sous forme de photographie. Numéroter les tableaux de façon consécutive dans le texte par un chiffre arabe (par exemple : Tableau 1). Déterminer l'emplacement des tableaux dans le corps du texte. Mettre le titre du tableau sur la même page que le tableau auquel il se rapporte.

B. Figures

Toute figure, qu'il s'agisse de dessin, de photographie noir et blanc, de photographie en couleurs ou de diapositive 35 mm, doit ajouter de la valeur à la présentation du manuscrit.

Toute figure doit être faite de façon professionnelle, qu'il s'agisse d'un dessin ou d'une photographie. La plupart des dessins faits sur ordinateur ne sont pas acceptables. La figure doit mesurer 5 X 7 pouces (13 X 18 cm), être sur épreuve glacée, noir et blanc ou en couleurs.

Toute figure, dessin, photographie noir et blanc ou photographie en couleurs, doit porter la mention «Figure». Numéroter les figures en ordre consécutif par un chiffre arabe dans le texte (p. ex., Figure 3). Déterminer l'emplacement des figures dans le corps du texte.

1. Légendes

Taper les chiffres et les titres à double interligne, en paragraphe, sur une feuille distincte. Dactylographier sur une même feuille la légende de plusieurs figures. La légende doit être courte et elle ne doit pas reprendre les explications contenues dans le texte. Toute étiquette interne sur la figure doit être mentionnée dans la légende de la figure.

2. Étiquettes

Bien identifier les figures par une étiquette. Au dos de chaque figure, mettre une étiquette portant le nom de l'auteur, le titre de l'article, le numéro de la figure et indiquant le haut de la figure. Pour les diapositives, identifier clairement sur l'étiquette le nom de l'auteur, le numéro de la figure et, par une marque en rouge, le côté supérieur droit de la diapositive à l'écran, et non le côté à projeter. Pour faciliter la révision, remettre un original et trois copies de chaque dessin, photographie ou diapositive.

C. Annexes

Il est parfois nécessaire de fournir des informations moins importantes mais pertinentes, qui pourraient distraire les lecteurs à force de détail; p. ex., programmes informatiques, formules mathématiques, listes d'adresses, sondages ou autres données qui seraient trop lourdes dans le texte. Identifier les annexes comme Annexe A, Annexe B, Annexe C, etc. Chaque annexe doit porter un titre court et descriptif.

IX. Présentation du manuscrit

A. Directives générales

Dactylographier le manuscrit à double interligne sur du papier à lettre de fort calibre mesurant 21,6 X 27,9 cm (8 1/2 X 11 po) ou ISO A4 21,2 X 29,7 cm, en laissant des marges d'au moins 2,5 cm (1 po). L'impression doit être de très bonne qualité. Pour la révision, présenter l'original plus trois photocopies du manuscrit ainsi que l'original plus trois reproductions de bonne qualité de chaque figure et tableau. Numéroter toutes les pages de façon consécutive, en commençant par la page titre. Le nom de l'auteur (des auteurs) doit apparaître uniquement sur la page titre.

Joindre à tout manuscrit une lettre d'accompagnement qui donne l'identité de l'auteur qui recevra la correspondance. Cette lettre doit également mentionner que le manuscrit a été approuvé par tous les auteurs, s'il y en a plus d'un. De plus, la lettre doit indiquer le genre d'article et si le travail a été présenté à d'autres revues. Inclure également une photocopie des lettres d'autorisation et autre information pertinente.

Disposer les pages du manuscrit de la façon suivante :

1. première page : titre, nom de l'auteur (des auteurs), diplômes et affiliations à des organismes, le cas échéant
2. deuxième page : résumé et mots clés
3. texte (commencer sur une nouvelle page)
4. remerciements (commencer sur une nouvelle page)
5. notes au bas des pages (commencer sur une nouvelle page)
6. références (commencer sur une nouvelle page)
7. annexes (commencer sur une nouvelle page)
8. tableaux (chacun sur une page distincte)
9. légendes des figures (sur une seule page, dans la mesure du possible)
10. figures (chacune sur une page distincte)

B. Envoi par la poste

Bien protéger les manuscrits contre la manutention pendant leur transport. Les enveloppes doivent être rigides et contenir du carton fort ou des contenants de carton ondulé un peu plus petit que l'enveloppe. Il est primordial d'employer des contenants si des dessins ou des photographies font partie de l'envoi. Toujours garder des copies du manuscrit au cas où les originaux se perdraient. Poster les manuscrits à la rédaction de la revue.

Revues qui appuient le protocole

Les revues ci-dessous considéreront pour publication les manuscrits préparés selon les présentes exigences. La rédaction pourra peut-être modifier le style de rédaction avant la publication, mais les documents originaux ne seront pas retournés aux auteurs avant la révision.

Voici le nom des revues qui appuient les «Exigences uniformes pour les manuscrits présentés aux revues en optométrie» : *Revue canadienne d'optométrie, Clinical and Experimental Optometry, International Contact Lens Clinic, Journal of the American Optometric Association, Journal of Optometric Education, Journal of Optometric Vision Development, Journal of Vision Rehabilitation, Ophthalmic and Physiological Optics, Optometric Management, Optometry and Vision Science* et *Southern Journal of Optometry.*

Droits d'auteur

Pour que les présentes exigences soient adoptées de façon générale, le Comité autorise la réimpression du présent document tiré du Journal of American Optometric Association ou du American Journal of Optometry and Physiological Optics.

Jimmy D Bartlett, OD, président; Brian Brown, PhD; Milton J Eger, OD; Merton C Flom, OD, PhD; Bernard Gilmartin, PhD, FBCO; John R Griffin, OD, MSEd; Henry W Hofstetter, OD, PhD; William M Lyle, OD, PhD; Meredith W Morgan, OD, PhD; John W Potter, OD; Beverly Sanders, MA; et Theresa E Wood, BA.

Vision Care News Actualité oculo-visuelle

Unless otherwise noted, all items appearing in Vision Care News are written by ***Michael DiCola****, CAO Director of Communications. Where external information sources were used in compiling an item, these are also identified and an address for readers wishing further information, if provided with the source material, is included.*

Optometric use of "doctor" title under fire in Quebec

With their President offering the excuse that "we just want to ensure that consumers are not abused", Quebec's Association of Ophthalmologists has applied for a permanent injunction in Quebec Superior Court to force optometrists to stop using the doctor title both in full and in its abbreviated form.

Added Dr Paul-E Demers (quoted in *The Medical Post*, April 16), "We are acting without any animosity toward optometrists, but we think that the laws defining the rights and duties of professional orders in Quebec (should) be respected."

In November 1988, a judgement by the Quebec Court of Appeal affirmed that members of l'Ordre des optométristes du Québec (OOQ) were forbidden the use of the doctor title. However, in the intervening time, the province's ophthalmologists have not been satisfied that the ruling is being observed. Defendants named in this most recent court challenge include the OOQ and, specifically, 18 Montreal ODs who are accused of posting a sign or using a business card on which the "offending" title appears.

Also being cited by the plaintiffs is the result of a January survey carried out by a marketing company in which over half the respondents indicated that they assumed the use of the term "doctor" before a person's name indicated that person to be a physician. According to the ophthalmologists' lawyer, Roger David, the illegal use of the title clearly creates a "dangerous" confusion in the public mind.

Persian Gulf war expected to widen CL use in military

More than 200 pilots of US Army AH-64 Apache attack helicopters, used in the Persian Gulf war against Iraqi tanks at night, were fitted with contact lenses instead of glasses to improve the use of the video defence systems built into their helmets.

According to a news release issued by the US Contact Lens Council, the success of the CL wear by the Apache pilots is expected to lead to wider use of contact lenses by US military aviators in the future.

Apparently, the use of glasses by those pilots requiring correction interfered with the effectiveness of the Integrated Helmet and Display Sighting System (IHDSS), the high-tech helmet-and-night-goggle combination worn by the pilots during combat missions. The IHDSS is a computerized infrared targeting and night vision system that enables pilots to "see" enemy targets up to 50 miles away, even on a moonless night in bad weather. Since glasses interfered with the effective use of the system, the US Army Surgeon General waived an existing restriction against CL use for Apache pilots bound for the Gulf.

According to Colonel John Pyle, OD, the Chief of the US Army's Optometry Section, aviators were doing better with contacts, "because of the better peripheral vision". Disposables were used because field hygiene conditions in the desert were considered poor.

The complete study, which included more than 200 Apache pilots and more than 600 pilots in general aviation, is due later this year and is expected to "reveal additional data attesting to the effectiveness and safety of contact lenses."

The Contact Lens Council (CLC) is a body devoted to promoting the use of contact lenses and acting as a consumer education resource. Its members include Allergan, Bausch & Lomb, Sola Barnes-Hind, Vistakon, Wesley-Jessen and the Contact Lens Manufacturers Association. The American Optometric Association (AOA), the Contact Lens Association of Ophthalmologists (CLAO) and the Contact Lens Society of America serve as advisors.

CLC Chairman Jeb Bing, commenting on the success of the Apache pilots' use of contacts under actual combat conditions, said, "The contact lens industry is flattered that advances in contact lens technology have kept pace with advances in the US military's defence technology."

For more information about the CLC, write to Contact Lens Council, 1001 30th Street NW, Suite 200, Washington, DC, 20007, USA. Tel (202) 342-7000.

Flight attendants' eyesight requirements challenged

Meanwhile, in a related but slightly less bellicose story, a Canadian human rights tribunal has handed down a decision on the corrected vision of flight attendants.

In their 22 April issue of "Ottawa Letter", CCH Canadian Limited (Tax and Business Law Publishers) reports that, according to the tribunal, poor vision, if it is correctable, may not be justified as grounds for refusing to hire someone. The decision was rendered in the case of two prospective flight attendants who applied for positions with Worldways Canada Limited and Wardair Limited. One applicant had uncorrected vision of 6/60 (20/200), the other 6/24 (20/80). Both were rejected on just those grounds.

However, in rendering its decision, the tribunal determined that both complainants were fully capable of performing their duties when wearing contact lenses and the tribunal has now set about trying to determine the amount of damages to be awarded in the cases.

Commenting on the decision, Canadian Human Rights Commissioner Max Yalden was quoted on April 17 as saying, "It shows that the visual acuity requirements set by the airlines were arbitrary and unjustified."

AOA's Distinguished Service Award

Dr Henry Hofstetter, a professor at Indiana University, Bloomington, has been named recipient of the American Optometric Association's 1991 Distinguished Service Award.

The award is presented to individuals who have rendered "unusually significant" contributions to Optometry, according to a news release issued recently by the AOA.

In 1948, when he was just 34, Dr Hofstetter was named Dean of the Los Angeles College of Optometry (now the Southern California College of Optometry); four years later, he was selected after a nationwide search to establish the Indiana University optometry program. For 18 years he served as a professor and the Director of the Division of Optometry, before he relinquished the position to resume full-time teaching and research.

In his career, Dr Hofstetter has been an active member of approximately 50 different scientific and professional organizations, advancing to a leadership position in many of them. He has served in consultative positions with the (US) National Academy of Science, the US Public Health Service, the US Highway Research Board, the US Air Force and the US National Science Foundation.

In the AOA, he served eight years on the Board of Trustees and was President in 1978–79, the only optometric educator in the AOA's history to hold that position. The Distinguished Serivce Award is only the latest in a series of honours received by Dr Hofstetter. He has been given the Medal of the International Optometric and Optical League (IOOL), was named Indiana's Optometrist of the Year, received the Centennial Achievement Award from Ohio State University and, as was also reported recently in the *CJO*RCO*, last year was selected as the IOOL's International Optometrist of the Year. He has received special citations and awards from six professional fraternities and has been granted honorary doctorate degrees from four colleges of Optometry.

A prolific author as well, Dr Hofstetter has written four books and over 200 articles. Although he formally retired in 1979, he still maintains a busy consulting and lecture schedule.

CAO joins our US colleagues in extending sincere congratulations to Dr Hofstetter — by any standard, truly one of the giants of the profession.

A new President for the Vision Institute

The Vision Institute of Canada's Board of Directors is pleased to announce the election of Mr James Passmore, CA, as its new President. Mr Passmore has been a member of the Institute's Board for 2½ years and was Vice-President last year.

A Toronto-based management consultant with extensive experience in Optometry, Mr Passmore assisted the Ontario Association of Optometrists (OAO) in its first formal OHIP fee negotiations in 1987–89. It was during this long process that Ontario ODs marched on Queen's Park to seek "fairness" from the provincial government, eventually winning a favourable resolution. Mr Passmore continues to consult for the OAO on a variety of issues with professionals, associations and companies in the health care field. In a news release announcing the election, the Institute called his management expertise "an invaluable source of support".

He is the first lay member to be elected President.

For further information about the Institute, a charitable organization, write to 815 Danforth Avenue, Suite 301, Toronto, ON, M4J 1L2.

Canadian OD addresses US Sports Vision Section

Dr John Peroff, an optometrist from North Bay, Ontario, was a featured speaker at the American Optometric Association's Sixth Regional Sports Vision Section (SVS) Symposium, held last February in Breckenridge, Colorado.

A total of ten hours' CE was offered on the program. As reported in the Spring issue of "News and Views", the biannual newsletter of the SVS, Dr Peroff spoke on the application of the SVS Pacific Sports Visual Performance Profile to the Canadian Ski Team 1987–90. In his presentation, Dr Peroff reported discovering that nearly half (42%) of Canada's ski team members had never had a formal eye health or visual examination. He also reported that the Pacific Profile results had proven sufficiently accurate to identify Canada's top skiers and were used as the basis for starting a visual enhancement program for all ski teams.

Dr Peroff's most recent research has been in the use of tints in skiers' goggles. Early findings show that skiers seem to favour light (dark orange to rose) tints, which tend to give better contrast.

For more information on the activities of the AOA's Sports Vision Section, write them c/o the AOA, 243 North Lindbergh Boulevard, St Louis, MO, 63141, USA.

IOOL news

Cyprus challenge

Recently, the President of the Association of Optometrists of Cyprus requested the assistance of the International Optometric and Optical League (IOOL) to support a bill in the Health Committee in that country's House of Representatives. The bill would end contact lens fitting by all except "ophthalmologists or registered (ophthalmic) opticians following the prescription of an eye specialist."

All members of Cyprus's Association of Optometrists are graduates of UK universities. The League responded with documentation explaining League policy and advising that optometrists (ophthalmic opticians) are, in fact, primary health care practitioners and should not require prior special consent but should have file access to those seeking these services.

League history

It's a small book — not much more than a pamphlet, really — but the official history of the League, at 15 pages, has recently been republished and updated to cover almost 60 years (from 1927 to 1986). *A Short History* was written by Peter Smith, who assumed the position of Honorary Secretary of the IOOL in 1972 and was named Emeritus Secretary in 1986. The booklet outlines many of the trials, tribulations and successes in the League's efforts to define, organize and promote optometric standards in a community as diverse as, initially, Europe and, ultimately, the world.

School visits

Professor Jannie T Ferreira, Head of the Department of Optometry at Rand Afrikaans University, was in North America in April to visit as many Canadian and US schools as he could fit

into his hectic itinerary. His purpose was to review and study curriculum, research programs, clinics and general administration. In addition, Rand Afrikaans is interested in having visiting faculty for one-semester or one-year appointments. Information: Professor Jannie T Ferreira, Rand Afrikaans University, PO Box 524, Johannesburg 2000, South Africa. Tel (011) 489-2911. Fax (011) 489-2019.

Looking to thin your library or perhaps create some space in your storeroom for a good cause?

Several requests have been received by the IOOL for educational materials to support teaching and research in developing countries.

In the Philippines, Meredith Y Reyes is seeking scientific journals and any useful visual aids for teaching and training, for the Centro Escolar University, No. 11, Meniola, Manila, Philippines. And in the same country, Rosalinda Bersabal Bono is looking specifically for the *Journal of the American Optometric Association* (1985–89) and *Optometry and Physiological Optics* (1985–89). Her institution advises it is willing to pay for pediatric, physiological optics and geriatric textbooks: Cebu Doctors' College of Optometry, Osmena Boulevard, Cebu City, Philippines 6000.

The Korean Optometric Association is requesting, as a donation or for payment, audio-visual material in clinical procedures, refraction, low vision, contact lenses, pediatric and geriatric optometry: The Korean Optometric Association, 12-1 Namdazmunro 5-GA, Chung Ku, Seoul, Korea. Tel (02) 756-1001. Fax (02) 773-2941.

The Sri Lanka Optometric Association (SLOA) desperately needs instruments and books. Despite a population of more than 15 million, the country has no optometric education or formal registration. If you can make a donation, call or write to Gamini Edersinghe, Chairman, SLOA Committee, 22/8 Kalyani Road, Colombo 6, Sri Lanka. Tel 580396.

Dr JD Nyalusi of Tanzania is seeking donations of periodicals and textbooks on optometry: c/o KCMC School of Optometry, PO Box 3010, Moshi, Tanzania.

Dr DD Sheni is seeking donations of all kinds of books and journals on optometry, ophthalmology and instrumentation, plus CL trial lens sets and binocular vision laboratory kits: Department of Optometry, University of Benin, Bendel State, Nigeria. Tel (052) 200250, extension 2804.

Mr F Kojovi Morny is Director of Studies at the only optometry school in Ghana. The school, however, lacks teaching materials and is seeking accreditation from Ghana's University of Education. Textbooks, instruments, trial cases and frames, and any useful teaching aids can be sent to Mr Morny at PO Box 1814, Kumasi, Ghana.

And, finally, a new optometry program is being developed in Portugal by Professor Filipe Andres, who is interested in receiving educational material like syllabi and teaching aids. He is also encouraging faculty visits to his institution. Professor Andres is at Universidade Da Beira Interior, R Marques d'Avila e Bolama, 6200 Coviha, Portugal.

American Academy of Optometry 1991 Annual Meeting

The Disneyland Hotel in Anaheim, California, will be the site for this year's annual meeting of the American Academy of Optometry, December 13 and 14.

Over 100 exhibitors and some 3,000 optometrists from all over the world are expected to attend. (The Academy's exhibit program customarily includes knowledgeable scientific and technical people, in addition to the expected sales personnel, at each exhibit.)

Information: The American Academy of Optometry, 4330 East-West Highway, Suite 1117, Bethesda, MD, 20814-4408, USA. Tel (301) 718-6500; Fax (301) 656-0989.

Low vision interest?

Members interested in low vision might also be interested to know there is a journal devoted to exactly that subject. The *Journal of Visual Impairment and Blindness* recently sent the *CJO*RCO* a call for papers for its special "low vision" issue slated for publication in December. Although the deadline for papers (5 August 1991) will likely be too late to catch by the time this issue of the *CJO*RCO* is received, you might nonetheless be interested in contacting them for further information if your practice includes a strong interest in low vision: c/o The American Foundation for the Blind, 15 West 16th Street, New York, NY, 10011, USA. Tel (212) 620-2000. Fax (212) 727-7418.

River Blindness Foundation charts its course

You can tell that river blindness upsets the people who have banded together to fight it.

The fly that transmits it, for example, is a variety of blackfly scientists have tagged *similium damnosum*, which sounds more like a curse than a name.

In their inaugural newsletter, published this past spring, the University of Houston's River Blindness Foundation defines its mission and presents a detailed history and update of worldwide efforts to combat the spread of the disease.

River blindness (probably so-called because its formal name, *onchocerciasis*, plays havoc with journalists' spell-check programs) is characterized by the presence of a small number of adult parasitic onchocerca volvulus worms and the resulting invasion of the body by millions of microfilariae. The disease earned its more common name because the parasite thrives along rivers where the host blackflies congregate and because blindness is the main disability stemming from the infection.

The disease is endemic across equatorial Africa and in several areas of Central and South America. Some estimates have placed numbers as high as 18 million people infected and up to two million blinded or visually impaired. In those areas identified as hyperendemic, almost every single person living in the region will be infected, and half the population blinded. Once blinded, a victim's life expectancy is reduced to ⅓ that of a sighted person; most victims die within ten years.

The River Blindness Foundation (RBF) was established in March 1990 to encourage the distribution of a vaccine, Mectizan, developed in the mid-1980s by Merck and Co. Mectizan is made available free to all those who could benefit from treatment. Getting it into the often remote areas where the disease thrives is the mission of the RBF.

To date, the Foundation has established programs with the Lions Clubs of Cameroon, where over half the country's 9.5 million population is at risk; the International Eye Foundation of Guatemala; Dr Ronald Guderian of the Hospital Vozandes in Ecuador, whose health care teams are reaching a majority of those already infected or at risk; the Institute of Biomedicine in Caracas, Venezuela; and, most recently, the Ministry of Health in Nigeria.

The RBF is looking both for volunteers and for donations. In their inaugural newsletter, their appeal is specific: "The River Blindness Foundation is dedicated to a multi-year African oncho program and a Latin American eradication program. We are seeking sources of local currencies, blocked funds and debt-equity swaps. We also are seeking

volunteers for a month or longer to help administer overseas programs."

For a copy of the newsletter, or more information, call or write to the River Blindness Foundation, University of Houston, Houston, TX, 77204-6052, USA. Tel (713) 749-3123. Fax (713) 749-4019.

CFWD looking for eyeglasses, volunteers

The Canadian Foundation for World Development (CFWD) has an ongoing need for used eyeglasses and volunteers to assist in a number of Third World eye care projects in Haiti, Jamaica, Mexico, Guyana, the Dominican Republic, Nicaragua and Guatemala.

The CFWD's mandate ranges far beyond vision and eye care. In a recent information package sent to CAO, readers are told, "Whether you are a doctor, dentist, nurse, ophthalmologist, optometrist, carpenter, electrician, agriculturalist, teacher, etc., we can place you."

One of the Foundation's representative programs is also currently one of its areas of greatest need: in Jamaica, the St Andrews Lions Club and the Foundation for International Self-Help (FISH) jointly operate a 60-foot mobile Health, Dental and Eye Care Clinic under the supervision of nurse Marion Odell. The clinic was actually located for a time in Morant Bay, Jamaica, where it was used as a field hospital while reconstruction was completed on the Princess Margaret Hospital.

The CFWD notes that "one of our objectives is to support people so that they can achieve self-sufficiency" and offers volunteers the opportunity to "combine a holiday while sharing your skills".

For more information about specific opportunities, write to Kenneth G Davis, President, Canadian Foundation for World Development, 2441 Bayview Avenue, Toronto, ON, M2L 1A5. Tel (416) 445-4740.

Feeling charitable?

The number and variety of charities vying for attention to meet needs that are sometimes desperate is growing, almost daily it seems. From time to time, the *CJO*RCO* runs public service advertisements provided to us by charitable causes like the Canadian Cancer Society, the Unitarian Service Committee and others, including our own Canadian Optometric Education Trust Fund (COETF).

Recently, much of the media's news time has been devoted to a number of the world's human tragedies, including the cyclone which devastated Bangladesh in late April, the cholera epidemic sweeping Peru, the threat of starvation facing huge numbers of people in Ethiopia and the Sudan, the plight of the Kurdish refugees along Iraq's borders with Turkey and Iran, and on, and on ...

Choosing a charitable cause or causes to support, however, is complicated by the fact that, often, many different groups are created in response to a specific need. While certainly organized with the best of intentions, often these groups can frustrate the potential donor simply by sheer weight of numbers.

There are no fewer than 65,000 charities registered in Canada, and the Canadian Centre for Philanthropy has even come up with a name for the frustration experienced by donors in the face of so many appeals. In an April 29 news release devoted to "Imagine", they referred to the feeling of "not being able to respond to all the worthwhile causes in our communities" as "compassion fatigue".

Because CAO and the *CJO*RCO* receive regular correspondence from many of these groups (cf. the IOOL, RBF and CFWD items in this feature), we are pleased to be able to pass along a few addresses to readers interested in supporting one or more of many, many good causes.

Many of the following will also accept support for specific global relief projects, if so designated by a donor, or can simply allocate your dollars to their most immediate needs. All will provide copies of their mission statements on request: **Canadian Catholic Organization for Development and Peace**, 5633 Sherbrooke Street, Montreal, PQ, (514) 257-8711; **Canadian University Students Overseas (CUSO)**, 135 Rideau Street, Ottawa, ON, K1N 9K7, (613) 563-1242; **CARE Canada**, 1550 Carling Avenue, Ottawa, ON, K1G 4X6, 1-800-363-4853; **Canadian Red Cross Society**, National Office, 1800 Alta Vista Drive, Ottawa, ON, K1G 4J5; **Christian Reformed World Relief Committee of Canada**, PO Box 5070, Burlington, ON, L7R 0Y8; **Help the Aged Canada ("Adopt-A-Gran")**, 99 5th Avenue, Ottawa, ON, K1S 5K4, (613) 232-0727 or Fax (613) 232-7625; **HOPE International Development Agency**, 210 6th Street, New Westminster, BC, V3L 3A2; **Human Concern International**, PO Box 3984, Station C, Ottawa, ON, K1Y 4P2; **Inter Pares**, 58 Arthur Street, Ottawa, ON, K1R 7B9; **International Development and Relief Foundation**, 100 McLevin Avenue, Unit 2, Scarborough, ON, M1B 2V5; **OXFAM Canada**, 1011 Bloor Street West, Toronto, ON, M6H 1M1, 1-800-387-4760; **UNICEF Canada**, 112 — 63 Sparks Street, Ottawa, ON, K1T 5A6, (613) 233-8842; **Unitarian Service Committee (USC)**, 56 Sparks Street, Suite 705, Ottawa, ON, K1P 5B1; **World Relief Canada**, 250 Consumers Road, Suite 1002, Willowdale, ON, M2J 4V6; **World Vision Canada**, 630 Turner Valley Road, Mississauga, ON, L5N 2S4, 1-800-268-3951.

The *CJO*RCO* also acknowledges that the foregoing list is far from complete. If readers have summaries and addresses for other good causes, particularly those related to health or vision, please send the information to us and we'll pass it along to our readers.

Wesley-Jessen symposium on astigmats

A total of 100 ODs from Canada, the US and the UK attended "Insight '91", a symposium in Phoenix, Arizona, March 22 to 25, devoted to management of the astigmatic patient. The conference was billed as a state-of-the-art look at treating astigmatism with soft toric contact lenses (CLs) and was sponsored by Wesley-Jessen (W-J).

Over the three days, delegates heard a number of presentations by leading clinicians on the clinical and practice management aspects of treating astigmatic patients: Rodger Kame, OD (Los Angeles, CA) on "An historical perspective on the correction of astigmatism"; Douglas Becherer, OD (Belleville, IL) on "Techniques for measuring astigmatism"; Joel Silbert, OD (Philadelphia, PA) on "Toric lens design: a clinical perspective"; Wayne Cannon, OD (Columbia, SC) on "Lens selection: balancing clinical management issues"; Rex Ghormley, OD (St Louis, MO) on "Patient education: compliance and satisfaction"; Joe Pfeifer, OD (Lynnwood, WA) on "Problem solving with toric lenses"; Neil Gailmard, OD (Munster, IN) on "Optimizing inventory management for toric lenses"; Lee Rigel, OD (East Lansing, MI) on "Building a practice through toric lens specialization" and Michael DePaolis, OD (Rochester, NY), on "Corneal topography".

A number of workshops also focussed on individual problem-solving exercises based on specific slide presentations. (A planned spin-off from the workshop sessions will see delegates using the material to present evening seminars to the optometric populations in their home towns. W-J estimates that, if followed through by all delegates, the seminar

material will ultimately be seen by some 3,000 ODs between May and July.)

The symposium also featured a process called "interactive polling" whereby delegates provided opinions and practice data from which a number of conclusions were extrapolated, including the following:

- Soft toric contact lenses are typically $101 to $150 "more profitable" than spherical lenses, according to 51% of the delegates; 15% reported the difference to be greater than $151.
- One in five delegates reported prescribing soft toric CLs to 20% or more of their new or refit patients. 53% placed that number between 10 and 19%.
- The most important factors in selecting a lens type were identified as lens quality control (37%); rotational stability (24%); and the manufacturer's exchange policy (24%).
- Although many delegates indicated an interest in incorporating toric dispensing into their practices, 77% said they don't currently maintain a toric CL inventory.
- 37% reported they attempted to refit mild astigmats (-0.75D cylinder) reporting "slight visual acuity difficulties" with soft spherical lenses.
- 35% reported a success rate of over 75% when "empirically" fitting soft toric CLs; 37% indicated their success rate as falling between 51 and 75%.

Further information: Wesley-Jessen Corporation, 400 West Superior Street, Chicago, IL, 60610, USA. Tel (312) 751-6283.

Solution makers weathering e-w, disposable threats

In 1990, the market for eye care products (contact lens and ocular solutions) grew by 9% to $1.07 billion, the first time ever that the market has exceeded the billion-dollar point.

In a recent newsletter from a company called Packaged Facts Inc, it is reported that ocular solution (eyedrop) sales rose by 5% to $217 million and, thanks to dry-eyed, aging baby-boomers, retail sales are projected to grow between 8 and 9% through 1994 to over $300 million. But ocular solutions account for only 21% of the eye care products total market sales, and the report notes that the overall picture is very much dependent on the lens care solutions segment of the market, which accounts for the remaining 79%.

Retail sales in that segment grew by 10% last year, marking the fifth consecutive year that growth was in double digits. Between 1985 and 1990, sales nearly doubled from $470 to $853 million. Future lens care sales are projected to continue on their present course, growing between 11 and 12% annually, driving the category to $1.31 billion by 1994 and the overall market to $1.62 billion within the same time frame.

Technological developments, both in the manufacture of lens care solutions and in contact lenses, have been the single most pre-eminent growth factor in the segment. Solution breakthroughs such as cold disinfection, thimerosal-free products, hydrogen-peroxide-based formulae, lens lubricants and the like have had a beneficial effect on the market.

But innovations in lenses themselves have been equally important, because they have expanded the consumer base market for solutions, in spite of the fact that certain innovations (extended wear, disposables) seemed at first to pose a threat to the solutions market. It didn't take long for consumers to discover, however, that extended-wear (e-w) lenses, no matter how comfortable they are, pose a significant risk of infection or corneal injury when they remain in the eye for extended periods of time. Now, in fact, most practitioners recommend taking e-w lenses out for the night as often as possible. The gradual shift among wearers to compliance with standard lens care regimens has, in the long term, meant continued growth to the lens care products market.

Surveys show that only 40 to 75% of all contact lens wearers initially comply with prescribed care regimens. David Weiss, President of Packaged Facts, says that, in the long term, these careless caretakers will "fall into line", because "the regimens are established for a reason — to prevent discomfort and disease. Eventually, incidents of disease and discomfort occur, and the consumer becomes converted."

Some users of disposable lenses, meanwhile, are already reporting just such incidents, despite the fact that the lenses are advertised as virtually maintenance free. Weiss says that, based on past experience, lens care product manufacturers will likely not have sales hurt much by disposables. Citing what he calls the Santa Claus syndrome, Weiss notes, "Contact lens manufacturers keep coming out with products that consumers believe will be maintenance-free. But sooner or later, they realize there is no Santa Claus and that they have to begin taking care of their eyes. Whether it's as simple as lubrication for dry eyes, or whether it involves cleaning, lens care solutions are here to stay."

Note: Packaged Facts, the source of the information in the preceding item, has a 150-page study available that looks in depth at the solutions market, including brand share, distribution and consumer purchasing habits. It's expensive: $1,650 ($US). Readers interested in *The Eyecare Products Market* should write to Packaged Facts Inc, 581 Sixth Avenue, New York, NY, 10011, USA. Tel (212) 627-3228.

CIBA offers new incentives to purchase in volume

The CIBA Vision Corporation has introduced a new "Volume Incentive Purchase" (VIP) program aimed at "giving customers the advantage of basing their costs on total purchases of CIBA Vision lens and lens care products." Beginning July 1, CIBA customers will be able to place all orders through one account. The VIP program then establishes "price columns" based on dollar, rather than unit purchases, a process CIBA says will simplify their ordering, billing and account reconciliation processes.

Arriving with CIBA's new VIP program, however, is an average 5% price increase on their core products, reflecting higher business costs and new product research and development expenses. (In a recent news release, CIBA notes this is their first price increase since 1988.)

Under the VIP program, purchases of lens care products, disposable soft contact lenses and conventional spherical and specialty lens products will all be combined to determine a specific account's price column.

Local CIBA representatives have information about the company's new VIP program, or you can contact CIBA directly: CIBA Vision Corporation, 2910 Amwiler Court, Atlanta, GA, 30360, USA. Tel (404) 448-1200 or Michael Heinley at (215) 625-0111.

CIBA tape outlines US lens care legal responsibilities

CIBA Vision is offering a new audio cassette tape entitled "Lens Care Legal Responsibilities". The tape features highlights of a recent discussion among leading industry experts about the eye care practitioner's legal responsibilities associated with contact lens care.

Its purpose is to "inform eye care practitioners about the current and future legal climate associated with contact lens care and areas of potential liability, as well as the legal implications of prescribing limited lens care regimens."

The tape, which is the third in CIBA's "Healthy Eyes" audiotape series, features two optometric jurisprudence specialists, Drs James Scholles and Michael Harris, along with optometrist Dr Anne Thompson, CIBA's Manager of Technical Training and Services, who moderates the discussion.

Topics covered include types of liability suits that might arise, for example, malpractice, product liability, breach of warranty, informed consent and vicarious liability. The tape's central conclusion, apparently, is that "any variation from the manufacturer-recommended lens care regimen is not in the best interests of the patient or the eye care practitioner."

Further information: CIBA Vision Corporation, 2910 Amwiler Court, Atlanta, GA, 30360, USA. Telephone Laura Mastrangelo or Michael Heinley (215) 625-0111.

New oculo-kinetic perimetry test chart

Dr Bertil Damato, an eye surgeon at the University of Glasgow (Scotland), has developed a simple eye test for measuring visual fields. The test employs a chart that uses the subject's eye movements to shift an inert stimulus into different parts of the visual field.

Dr Damato (shown here, pointing to the chart) of the University's Tennent Institute of Ophthalmology, has spent over five years developing the system, oculo-kinetic perimetry (OKP). OKP features a central black dot surrounded by numbers. If the patient fails to see the dot when viewing certain numbers with

one eye, those numbers are crossed out on a miniature chart on an accompanying record sheet. The resulting "map" highlights the field defects.

OKP is seen as a "practical and inexpensive" aid to the prevention of blindness from diseases such as glaucoma. In the UK, glaucoma causes an average of 12 to 16% of all blindness and its prevalence, as in North America, increases with age from a low of 1% in the under-40 age group to 10% of people over 80.

A special version of Dr Damato's OKP chart has also been developed which "should detect moderate and severe glaucomatous field loss without unacceptable numbers of false positives."

(From a news release provided by the information department of the British Consulate-General in Toronto.) Further information: Dr Bertil Damato, Tennent Institute of Ophthalmology, Western Infirmary, Dumbarton Road, Glasgow, G11 6NT, Scotland. Tel (041) 339-8822.

New dry eye solution from Allergan

Allergan Inc recently announced that a new product, Celluvisc[tm] ophthalmic solution, is now available "for the management of severe dry eye conditions". (Thank goodness for commercial nomenclature. Patients would otherwise have to ask for it by its full name, carboxymethylcellulose sodium 1%.)

Celluvisc is formulated in lactated Ringer's solution containing the electrolytes and ions Allergan says are "necessary for maintaining good corneal health". It is preservative free and packaged in a unit-dose format.

Further information: Lynn Salo, Allergan Inc, 625 Cochrane Drive, Markham, ON, L3R 9R9. Tel (416) 940-7061.

Canon dealer named for Quebec, New Brunswick

Canon Canada has announced that its ophthalmic equipment dealer in Quebec and New Brunswick, effective May 10, is one of Quebec's largest optical equipment distributors, Optique National.

Optique National will be distributing Canon's combination unit RK-2 Auto Ref-Keratometer, as well as the company's line of non-mydriatic and mydriatic cameras.

Canon Canada's headquarters is in Mississauga, Ontario, with branch offices in Montreal, Calgary, Vancouver and Ottawa.

Further information: Faye Bitner, Canon Canada Inc, 6390 Dixie Road, Mississauga, ON, L5T 1P7. Tel (416) 795-1111.

Canadians all over are waiting for the gift of a life-saving transplant. The Kidney Foundation of Canada urges you to sign an organ donor card.

THE KIDNEY FOUNDATION OF CANADA
Improving the odds. On life.

Make a Blind Person See Again for $24

Losing one's sight to cataracts is a frightening experience for anyone. For many of the destitute elderly living in a developing country, it means becoming totally dependent on others. For only $24, you can sponsor a 10 minute operation that will enable a blind person to see again through Help the Aged (Canada).

I want to give the gift of sight! C-4

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13ième colloque international sur la lentille cornéenne

13th International Contact Lens Symposium

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LES 19 ET 20 OCTOBRE 1991

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OCTOBER 19th AND 20th 1991

CONFÉRENCES
LECTURES

- **Gary J. Andrasko, O.D.**
  Ohio, USA
  Utilisation de designs spéciaux pour corriger l'astigmatisme résiduel.
  Using advanced designs to correct residual astigmatism.

- **Joseph T. Barr, O.D.**
  Ohio, USA
  L'avenir des lentilles cornéennes à port prolongé vers une lentille parfaite?
  The future of contact lenses - extended wear - Can we expect the perfect lens?

- **Jan P.G.Bergmanson, O.D., Ph.D.**
  Texas, USA
  Les réactions cornéennes aux lentilles cornéennes à port prolongé.
  Corneal response to extended contact lens wear.

- **Murchison Callendar, O.D., Ph.D.**
  Ontario, Canada
  Désinfection et lentille cornéenne: nouvelles approches originales.
  New and novel approaches to contact lens disinfection.

- **Ruth Cornish, B.Sc.O.**
  New South Wales, Australie
  Lentilles rigides perméables aux gaz à DK élevé et lentilles souples jetables à port prolongé: résultats à long terme.
  Long term results of high DK R.G.P. and hydrogel disposable extended wear.

- **Ian Cox, O.D.**
  New York, USA
  Stratégies d'ajustement pour presbyte: adapter la lentille au patient et non le patient à la lentille.
  Presbyopic fitting strategies: fitting the lens to the patient, not the patient to the lens.

- **Barry Farkas, O.D.**
  New York, USA
  Les tenants et les aboutissants des lentilles pour port prolongé à remplacement fréquent.
  Whys, whens and hows of disposable frequent replacement lenses of extended wear.

- **Jack Greiner, O.D.**
  Massachusetts, USA
  Allergies oculaires et lentille cornéenne: évaluations et traitements.
  Anterior segment and ocular allergies, mucus secretions, their management and treatment in relation to contact lenses.

- **Brian Levy, O.D.**
  Californie, USA
  Réévaluation des risques reliés au port prolongé.
  Reevaluating risk factors of extended wear.

- **Yvon Rhéaume, O.D.**
  Québec, Canada
  Diagnostic et thérapeutique des problèmes reliés au port prolongé en lentilles cornéennes.
  Diagnosis and therapeutic of problems related to extended wear contact lens.

- **Jacques Sévigny, O.D.**
  Québec, Canada
  Comment régler de façon pratique et clinique les problèmes reliés aux lentilles rigides perméables aux gaz.
  Practical and clinical ways to solve problems linked to R.G.P. lenses.

- **Sarita P. Soni, O.D.**
  Indiana, USA
  Topographie de la zone optique cornéenne.
  Corneal optical zone topography.

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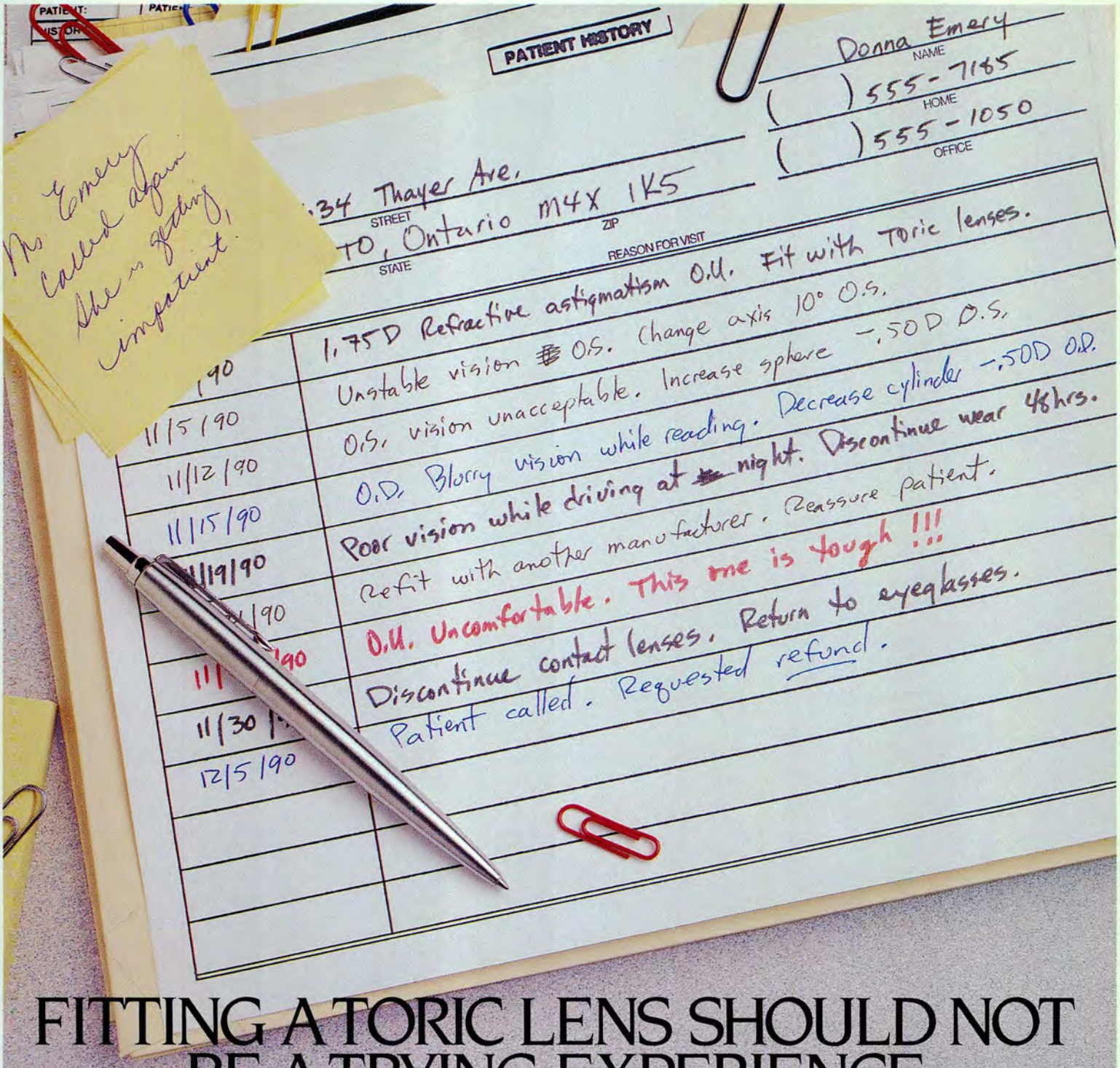

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Calendar

Calendrier

For further information regarding events sponsored by the Canadian Association of Optometrists, call or write to the CAO office in Ottawa unless otherwise indicated below. For events sponsored by a provincial association or society of optometrists, or for international events, contact the hosting organization identified in the item.

1991

August 5–9: Magique Manitoba Magic, 22nd Biennial Congress of The Canadian Association of Optometrists, Winnipeg, Manitoba. Information:
Dr Scott Mundle, Chairman
310 — 1695 Henderson Highway
Winnipeg, Manitoba, R2G 1P1
Tel (204) 582-2308
Fax (204) 231-1672

September 26–29: Contact Lenses and the Anterior Eye, 37th Conference of the Vereinigung Deutscher Contactlinsen — Spezialisten Optometristen (VDC), Aachen (Aix-la-Chapelle), Germany. Information:
VDC
Blumenstrasse 37
8000 Munchen 2, Germany
Tel (089) 263652
Fax (089) 265043

October 14–17: National Eye Research Foundation Congress, Mirage Hotel and Casino, Las Vegas, NV. Information:
National Eye Research Foundation
910 Skokie Blvd
Northbrook, IL, 60062, USA
Tel (708) 564-4652

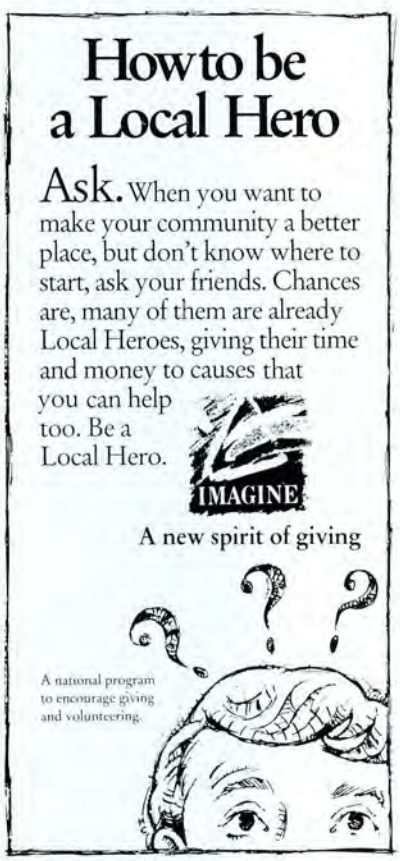
November 1–2: 9th Annual Fundraising Seminar and Draw, Vision Institute of Canada, Sheraton Centre Hotel (Toronto). Information:
MJ Samek, OD, MSc, FAAO
Vision Institute of Canada
Suite 301 — 815 Danforth Avenue
Toronto, ON, M4J 1L2
Tel (416) 461-6222
Fax (416) 461-3474

November 18–21: Bausch & Lomb's European Symposium on Contact Lenses, Geneva, Switzerland. Information:
Mary Dorton, Associate Manager, Professional Services
Bausch & Lomb Canada Inc
85 Leek Crescent
Richmond Hill, ON, L4B 3B3
Tel (416) 886-6860
or 1-800-668-7510

December 12–16: American Academy of Optometry 1991 Annual Meeting, Disneyland Hotel, Anaheim, CA. Information:
The American Academy of Optometry
4330 East-West Highway, Suite 1117
Bethesda, MD, 20814, USA
Tel (301) 718-6500
Fax (301) 656-0989

1992

June 14–19: 6th International Congress of the South African Optometric Association, Sun City, Bophuthatswana. Information:
Congress Secretary
SA Optometric Association
PO Box 3966
Pretoria, 0001, South Africa
Tel (012)-322-1310
Fax (012)-322-1313



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