

👁️ EARLY DETECTION
Common eye diseases
defined. **p03**

💬 KNOWLEDGE IS EMPOWERMENT
Canadian vision experts discuss
treatment choice. **p07**

📊 SURVEY SAYS...
Brand-new data on treatment
accessibility. **p08**

VISION HEALTH & PATIENT CHOICE

PERSONALHEALTHNEWS.CA

Your Vision, Your Choice

Education is key in
providing effective
care for vision loss.



**Clear Eyes and Full Hearts**

Two long-time married Canadian couples share what it is like being a patient and caregiver.

p06

**Diabetes and Loss of Vision**

The importance of regular appointments with a vision health professional if you have diabetes.

Online Exclusive

FROM LOSS TO ABILITY

RETHINKING AGING AND VISION

Every day, cultural and social cues encourage us to fear and fight the aging process.

We are bombarded with images of physical and mental deterioration that portray aging as the tragic loss of ability and independence. What if, instead of a story of decline, exclusion, and dread, we reframed the experience of aging as a time of opportunity where we concentrate on maintaining the functional ability and the valued contributions of older people?

Aging is a process that starts at the moment of birth. At each stage of life, we have a range of functional abilities that incorporate both the mental and physical capacity to understand and perform various tasks and activities. Our level of functional ability changes over time, and it is the perceived change and loss of this capacity that may leave us anxious and even resigned to the inevitable downward march of our health and quality of life as we age.

The process of aging is often experienced as the loss of individual identity, our me-ness so to speak, dissolved into a web of medical diagnoses and conditions. At the International Federation on Ageing (IFA), we believe this experience is wholly unacceptable.

We believe that we have a responsibility to help develop a new narrative on aging. We need to insist governments and health systems invest the time, expertise, and resources necessary to develop age-related policies and programs that aim to opti-

mize the functional ability and contributions of older Canadians. This action is not a luxury agenda item. The issues and costs associated with a rapidly aging population will inevitably lead to a crippling global crisis.

What can be done?

If we look at global burden of disease, we know the greatest impact on functional ability comes from sensory impairments such as vision loss and hearing, back and neck pain, chronic obstructive pulmonary disease, depressive disorders, falls, diabetes, dementia (particularly in high-income countries), and osteoarthritis.

Looking specifically at the issue of vision loss in Canada, we know every year more than 50,000 Canadians will lose their sight, and more than 5.5 million Canadians live today with a significant eye disease that could cause vision loss. Estimates also suggest the prevalence of vision loss in Canada is expected to increase nearly 30 percent over the next decade, largely due to an aging population.

The personal, social, and economic costs of vision loss can be profound. Higher rates of unemployment, divorce, and clinical depres-



Dr. Jane Barratt
Secretary General, International Federation on Ageing (IFA)

“More than 50,000 Canadians will lose their sight, and more than 5.5 million Canadians live today with a significant eye disease that could cause vision loss.”

sion are all associated with vision loss, as are billions of dollars in direct and indirect costs to the Canadian health care system.

But, we have a choice. We can choose to close our eyes and brace ourselves for this threat to our quality of life, or we can find creative and powerful ways to tackle the problem.

The crisis is looming, but it is largely preventable

Many of the retinal conditions that cause vision loss and blindness — age-related macular degeneration (AMD), diabetic retinopathy, glaucoma, cataracts, and refractive error — are treatable if the appropriate and available treatments are started in a timely manner; this accessibility is not always the case.

Cost inevitably influences access to medication. If as a society we are committed to maintaining the functional independence of our citizens, especially as they age, we need to make sure decisions that may prevent or limit their access to appropriate therapy are based on scientific evidence and in consultation with stakeholders including patients, physicians, and patient or-

ganizations, and not strictly on the basis of cost savings.

Specifically, Canadian policy makers need to stand together with older and aging Canadians by protecting their access to approved retinal treatments as prescribed by their physicians. By safeguarding access, policy makers have the unique opportunity to help improve the quality of life not only of the individual but also of the patient's family and the broader community.

Vision is a cornerstone of the aging discussion. We need to be bold in the face of threats to our vision health and united in our call for better solutions.

The International Federation on Ageing is proud to stand shoulder-to-shoulder with the physicians, patients, and organizations featured in these pages. As advocates for health and vision, we have the opportunity to join together as a powerful voice of innovative thinking and real change, moving us from a society chased by fear and ruled by loss to one that celebrates, enables, and protects ability. ●

Dr. Jane Barratt



Myths and Facts

Age-related macular degeneration (AMD), diabetic macular edema (DME), and central retinal vein occlusion (CRVO) are common vision disorders that are leaders in adult vision loss in Canada, but are still not very well known or understood. Brush up on your knowledge with these myths and facts.

AGE-RELATED MACULAR DEGENERATION (AMD)

MYTH

Age-related macular degeneration is genetic, so there is nothing I can do to prevent it.

FACT

While there is a genetic component to age-related macular degeneration — you are more likely to develop the disease if you have a family history — environmental factors can also play a significant role in whether or not you will develop the disease. To keep your eyes healthy, be sure to get regular eye exams; wear your sunglasses all year round; eat a healthy diet that includes fatty fish and dark, leafy greens; maintain low blood pressure and a healthy weight; and, most importantly, don't smoke. If your eye health professional recommends, you can also take AREDS2 formula vitamins.

MYTH

Age-related macular degeneration is true to its name and only affects people in their 80s and 90s.

FACT

Age-related macular degeneration is the leading cause of vision loss for Canadians over the age of 50. Over one million Canadians are losing their sight as a result of the disease, and this number is expected to double in the next 15 years as the baby boomer population ages.

MYTH

Changes in my eyesight are just a part of aging.

FACT

Any changes in your vision, field of vision, colour vision, or physical changes to your eye should be reported to your eye health professional immediately. The Canadian Ophthalmological Society recommends healthy adults over the age of 40 see an eye health professional at least every five years; over 55 at least every three years; and over 65 at least every two years. The recommended frequency increases if you have diabetes, a family history of eye disease, a previous eye injury or poor eyesight. You can also use what's known as an Amsler Grid to easily monitor your vision at home for wet AMD. Get yours free today by contacting the Foundation Fighting Blindness at 1.800.461.3331 ext. 262 or email info@ffb.ca.

DIABETIC MACULAR EDEMA (DME)

MYTH

Blinding eye diseases and diabetes are totally unrelated.

FACT

More than 40% of people living with diabetes are also affected by diabetic retinopathy, a blinding eye disease that occurs when tiny blood vessels in the retina begin to leak fluid, distorting vision. People living with all different types of diabetes, including type 1, type 2, and gestational are at risk of developing diabetic retinopathy, a disease that will lead to blindness if left untreated. Fortunately, there are several effective therapies available.

CENTRAL RETINAL VEIN OCCLUSION (CRVO)

MYTH

I am most likely to experience gradual vision loss accompanied by sore eyes.

FACT

Often, vision loss is painless and sudden. For example, central retinal vein occlusion (CRVO) is a form of sudden, painless vision loss that can be mild or severe. People living with glaucoma, diabetes, and/or hypertension are at increased risk of developing CRVO. Fortunately, there are a variety of treatments for CRVO, including anti-VEGF injections, which are also effective treatments for age-related macular degeneration and diabetic retinopathy.

Source: Erin George & Dr. Mary Sunderland, Foundation Fighting Blindness
Provided by the Foundation Fighting Blindness

Will You Develop Wet Age-related Macular Degeneration? New Research May Hold the Answer

A breakthrough in medical research is poised to help physicians determine well in advance whether a patient will suffer from age-related macular degeneration, the leading cause of vision loss among people age 50 and older.

The key is microRNAs, small molecules that are produced in cells and secreted in body fluids. They regulate gene activity. Detecting a specific microRNA signature can predict if someone will develop a particular disease, so microRNA diagnostic tests are the leading edge of advanced screening for various cancers.

Dr. Mike Sapieha of the Centre de recherche Hôpital Maisonneuve-Rosemont, a research centre affiliated with the Maisonneuve-Rosemont Hospital in Montreal, and Dr. Vincent De Guire, a clinical biochemist at the hospital, launched a study to determine if microRNAs could be used to help with advanced diagnosis of wet AMD.

To investigate, they enlisted graduate student Catherine Ménard and collaborated with Dr. Flavio Rezende, a retinal specialist at the hospital, who began collecting fluid samples from patients being treated for wet AMD.

The team studied the microRNAs that were present in these samples, and the results were very promising. They discovered a wet AMD disease signature involving three different microRNAs. They also discov-

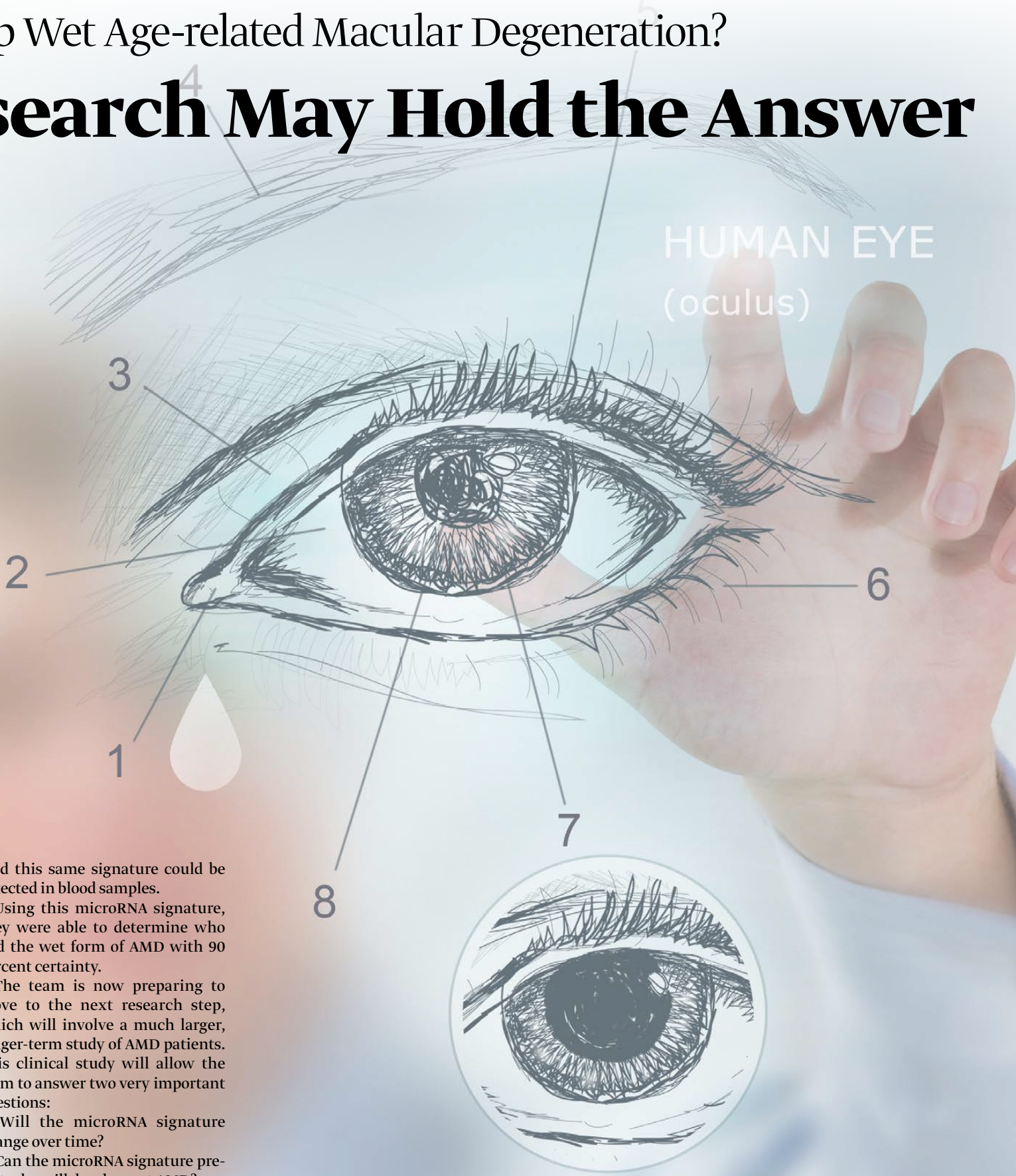
ered this same signature could be detected in blood samples.

Using this microRNA signature, they were able to determine who had the wet form of AMD with 90 percent certainty.

The team is now preparing to move to the next research step, which will involve a much larger, longer-term study of AMD patients. This clinical study will allow the team to answer two very important questions:

- 1) Will the microRNA signature change over time?
- 2) Can the microRNA signature predict who will develop wet AMD?

Ultimately, the results of these tests could change how physicians care for people living with AMD by enabling both predictive testing and early treatment.





Blurry or Distorted Vision? See Your Eye Doctor

Early detection of eye diseases improves recovery and helps identify other cardiovascular issues in the body.

Blurriness or distortion in your central vision could be symptoms of eye conditions that can worsen without treatment. These eye disorders should be promptly diagnosed and treated by a vision health professional. Here's what you need to know about three common eye disorders.

Age-related macular degeneration (AMD)

As we age, abnormal blood vessels may begin to grow in weakened areas of the eye and interfere with our central vision. "Some of the early symptoms may be decreased vision, a blurring or central distortion of vision," explains Dr. Kylen McReelis, a practising ophthalmologist and President of the Eye Physicians and Surgeons of Ontario (EPSO). "Lines that are supposedly straight may have a blur or warp to them."

Age-Related Macular Degeneration begins as dry AMD, which may cause no symptoms, and progresses to wet AMD when bleeding or fluid leakage occurs into the retina, causing the aforementioned distortion. Ophthalmologists like Dr. McReelis are able to identify signs of dry age-related macular degeneration as part of a patient's regular eye exam.

Diabetic macular edema (DME)

Both insulin and non-insulin dependent diabetics are at risk of developing diabetic macular edema. "Blood vessels near the area of central vision can have leakage of fluid," explains

Dr. Jordan Cheskes, President Elect of EPSO and a practising retinal specialist. "Instead of the macula being nice and dry, it gets a little bit waterlogged due to the swelling. As a result, it reduces vision — it's almost like looking through a glass of water."

Diabetics should be screened yearly by their vision health professional. "If we see evidence of diabetes in the back of the eye, we will often see patients multiple times a year," Dr. Cheskes says. The length of time that patients have been diagnosed with diabetes and how well they can control their blood sugar influences how likely the patient is to develop DME.

Retinal vein occlusion (RVO)

Dr. McReelis explains retinal vein occlusion as a stroke-type event. "Often it may be a more rapid onset of vision loss," he says. RVO occurs when a vein blockage impairs the circulation of blood in the back of the eye, which leads to blurring and distortion in central vision. "It causes some bleeding and/or some leakage of fluid into the central part of the eye," explains Dr. McReelis.

Risk factors and treatment

AMD, DME, and RVO share similar risk factors which include smoking, high blood pressure, and high cholesterol levels. "We want to make

sure that those risk factors are well taken care of before instituting any treatment," Dr. Cheskes says. Then the eye diseases are treated with an injectable medication called an anti-vascular endothelial growth factor or anti-VEGF, which reduces the bleeding, swelling, and leakage of fluid into the retina. "It's proven to be quite beneficial in improving vision," explains Dr. Cheskes. Some patients may also receive laser therapies, while certain vitamins help prevent dry AMD from progressing to the more severe wet AMD.

The importance of early detection

Early detection and administration of anti-VEGF treatments help to prevent further distortion and deterioration of vision. "Once the bleeding or leakage occurs, it damages the cells responsible for central vision," says Dr. Cheskes. "The quicker the treatment is instituted, the fewer cells are impacted and the better visual restoration and prognosis patients will have."

When ophthalmologists examine a patient, they're not only looking for signs of AMD, DME, and RVO. "The retina is a tissue that's affected by diabetes, high blood pressure, and smoking," says Dr. Cheskes, who can identify serious cardiovascular conditions in his patients. "The eye is a window to how certain diseases are occurring. We have the ability through a very simple screening exam to take a look at the back of the eye, prevent these larger issues, and reduce the burden on the health care system."

Andrea Yu

Risk factors

Everyone is at risk for developing AMD; however, there are specific factors that increase the risk, some of which are uncontrollable.

Everyone with diabetes is at risk of having diabetic retinopathy.

The incidence of diabetic retinopathy decreases with tight glycemic and blood pressure control.

Age

Ethnicity

Family History

are the greatest uncontrollable risk factors to AMD.

Smoking, unhealthy diet, and poor physical health all increase the risk of developing AMD.

Source: Eye Physicians and Surgeons of Ontario

THERAPEUTIC LANDSCAPE

Anti-VEGF therapy transformed the wet AMD treatment paradigm.

1980s–1990s

Laser Photocoagulation

Only way to seal leaking blood vessels in wet AMD was using a laser through this treatment.

Promoting Patient Choice for Wet AMD Treatment



If you suffer from wet AMD, talk to your vision health provider about choosing the best treatment option.

As our bodies age, we may feel our joints ache or our muscles weaken. Many elderly Canadians also develop vision disorders that impact everyday activities like reading, shopping, or even recognizing a friend or family member.

Wet age-related macular degeneration, also known as wet AMD, is a potentially blinding vision disorder of the retina. “It’s a disease where aging spots and deposits in the back of the eye weaken the layer under the retina and cause or allow blood vessels to grow through the weak areas,” explains Dr. Alan Berger, Assistant Professor in the Department of Ophthalmology and Vision Sciences at the University of Toronto. “Those blood vessels can bleed, scar, and leak fluid — all of which can interfere with vision.”

The evolution of wet AMD treatments

Treatment of wet AMD has come a long way since thermal laser therapy, which left blind spots in the vision, and photodynamic therapy, which was not as effective in stabilizing vision. In the mid-2000s, a new wave of injectable drugs was introduced into ophthalmologists’ practices. Known as anti-vascular endothelial growth factor or anti-VEGF drugs, these treatments interfere with the hormone factor that encourages abnormal blood vessel growth in the eye. “By giving patients an anti-vascular endothelial growth factor, you suppress that factor and cause the vessels to regress and resolve some of the bleeding,” explains Dr. Netan Choudhry, Lecturer at the University of Toronto Department of Ophthalmology and Visual Sciences, and Director of Vitreoretinal Surgery at the Herzig Eye Institute.



Dr. Netan Choudhry
Lecturer, University of Toronto, Department of Ophthalmology and Visual Sciences, Director of Vitreoretinal Surgery, Herzig Eye Institute

There are currently three anti-VEGF drugs available in Canada, but only two that have been approved by Health Canada for use in the eye. In some provinces, the government supports the cheaper non-approved treatment, despite Health Canada’s advisory against its use for wet AMD. “It’s a drug that was licensed for use intravenously for bowel cancer and other cancers but was adapted and started to be used for the eye,” says Dr. Berger. “But, it’s considered off-label by Health Canada. There’s a warning label that we shouldn’t be using it in the eye.”

“Improved patient choice helps wet AMD patients preserve their vision and improve their quality of life.”

their visits is effective.”

A ticking clock on vision loss

Wet AMD sufferers are racing against the clock to prevent further damage to their vision. A timely choice of the best treatment is critical. “If too much damage occurs early, it can be quite



Dr. Alan R. Berger
Vitreoretinal Surgeon, St. Michael’s Hospital, Vice Chairman, Clinical Services, University of Toronto

irreversible,” Dr. Berger says. “If the government or somebody forces you to use a potentially weaker drug for three or four doses, and only switch when they see that it’s not working, you may have missed the boat on some potential visual improvement.”

Patient choice and awareness

Dr. Choudhry encourages wet AMD patients to talk to their doctors about choosing the right treatment plan. “Have an open and honest dialogue with your physician, retinal specialist, or vision health provider about which drug you’re being started on, why, what the clinical value is, and what works the best for your particular situation,” he advises.

Improved patient choice helps wet AMD patients preserve their vision and improve their quality of life. “More physicians feel that choice is very important for the patients,” says Dr. Choudhry. “Ultimately you want to do what’s best for the patient and what’s specific to their disease type rather than be burdened by the cost.”

Dr. Berger also encourages patients to be proactive in their treatment choice and learn why a certain drug is being chosen. “In an ideal world, it should be the patients discussing with their doctors, understanding the pros and cons, and then making a decision, rather than the government forcing them to go down one path.”

Andrea Yu

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Anti-VEGF Therapy

A more effective type of treatment was developed. These treatments take aim at the specific protein, VEGF, which causes abnormal new blood vessels to form through the process of angiogenesis in wet AMD.

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Lucentis – Ranibizumab Injection

© 2005

Avastin – Bevacizumab Injection (Unlicensed)

Macugen – Pegaptanib Sodium Injection

Photodynamic Therapy

Treatment injected into the bloodstream that is activated by the laser when it passes into the affected area of the eye.

Eylea - Aflibercept Injection

© 2011

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Margaret (left) and Ronald (right) enjoying their later years with restored vision. Photos: Elif Rey

AMD Treatment Lets Seniors Live with Clear Eyes and Full Hearts

Ronald Millar’s grandfather went blind due to AMD. Thanks to breakthrough treatments, 81-year-old Ronald does not have to suffer the same fate.

When Ronald Millar first saw Margaret across the playground, it was love at first sight. “She was a gorgeous creature,” he says, remembering that day more than 60 years ago.

Now — after 58 years of marriage, two sons, and four grandchildren — Ronald and Margaret are still going strong, but Ronald’s sight isn’t what it once was.

Last year, he began to notice a change in his ability to do household activities. “I couldn’t see the puck on the TV!” says Ronald, a Toronto Leafs fan. As an avid reader, Ronald also found he had trouble seeing the words on the page.

Ronald figured the symptoms were related to his cataracts, but after examining his eyes, his doctor discovered there was a deeper problem. Ronald had wet age-related macular degeneration — the condition that had caused his grandfather to go blind.

When Ronald found out his condition could lead to a complete loss of sight, his reaction was summed up in one word: scared.

“I was afraid I wouldn’t be able to drive my car and be independent,” he says.

Visionary treatment

In the past, wet AMD was considered untreatable and would lead to blindness for the majority of patients within a matter of years. However, breakthrough procedures now can not only stop the progression of this condition but, in some cases, restore a patient’s vision.

Ronald’s physician opted for the latest available anti-VEGF injection therapy approved by Health Canada. These shots use a protein that naturally occurs in the body, called vascular endothelial growth factor, to stop the new blood vessels from forming under the retina and causing leakage. A few months after getting regular injections, Ronald’s eyes began to recover.

“My vision improved,” says Ronald. “I could see!” The groundbreaking wet AMD treatment means Ronald can continue life as normal with Margaret.

“It hasn’t gotten bad like his grandfather’s,” says Margaret. “And, hopefully it won’t with this new drug.”



A great view

Just over a year later, Ronald is still getting injections every six weeks in his right eye and is back doing the hobbies he loves.

“It has really worked wonders,” says Margaret. He takes care of the garden, can read comfortably, and often does wood carvings — all

“I was afraid I wouldn’t be able to drive my car and be independent”

— Ronald Millar

tasks that would have been challenging, if not impossible, had his wet AMD progressed. His most recent wooden creation? Detailed heads of Snow White’s seven dwarves.

With Ronald’s wet AMD getting treated, their vision of the future is clear and full of possibilities. “I’m doing everything” he says. “And, he passed his licence!” adds Margaret. ●

Ishani Nath

The Art of New AMD Treatments

When Patty Gill was diagnosed with wet AMD, there were no treatments. Now, breakthrough therapies are giving her a shot at saving her vision.

Painter Patty Gill used to bring her artistic view to life with each stroke of her brush, but, when she was 58, she noticed her vision began to change.

“When I was painting, I couldn’t tell whether the brush was hitting the canvas,” says Gill. She also noticed street signs weren’t as easy to read. Then one day she woke up and it was as if a large black cloud was directly in the middle of her field of view.

It took a year, and multiple specialists at different hospitals, to finally determine what was wrong. Meanwhile, Gill’s eyesight continued to deteriorate, making corners of walls appear curved.

Finally, she was told she had wet age-related macular degeneration (AMD), but at the time, getting diagnosed was only half the battle.

“The thing was, it didn’t really matter because there was no treatment,” says Gill.

Seeing advancements in treatment

Nearly two decades later, Gill is now 77 and

has seen unbelievable advances in the treatment and diagnosis of wet AMD.

“It’s tremendous what’s happened, it’s like coming out of the dark ages,” says Gill, adding that her mother suffered from the same condition and passed away not knowing what she had.

Initially, Gill was subjected to a laser procedure, which she later discovered actually damaged her eyes further rather than repairing them. Following that, she received another form of treatment that involved injecting a dye, making her extremely sensitive to light and turning her skin a yellowish-orange, “like the *Baywatch* girls.”

Everything changed with the advent of the latest available anti-VEGF treatment approved by Health Canada coming in the form of injections — proteins that stop the abnormal growth of blood vessels below the retina. Gill began getting monthly injections in both of her affected eyes, and says the difference is clear almost immediately.

“All of a sudden, it’s like — wow, I can see!” she says. “It was like a little miracle.”

Gill’s “Gregory Peck”

The success of the injections means that twice a month, Gill’s husband Hugh Cleland drives her from Burlington to Toronto for treatment.

“I’ve become her Uber driver,” laughs Cleland, “but she doesn’t give any tips!”

Cleland, 83, not only helps Gill with her appointments but has become a helping hand in her painting studio as well — combining their views of the world into a single work of art.

“He does the painting and I do the finishing touches, the highlights and the lowlights,” says Gill.

Though Gill still has trouble reading and cannot drive, she says the injections have helped her see nearly everything, from their cruises to their lunches with friends to her dutiful husband — although Cleland jokes that if her eyesight gets any better, she might realize that he doesn’t look like actor Gregory Peck.

“I’m lucky I can still see, and if it wasn’t for the injections, I wouldn’t be seeing this well at all,” she says. ●

Ishani Nath



Patty (left) and Hugh (right) are all smiles as new AMD treatments have helped save Patty’s vision. Photo: Foundation Fighting Blindness

PERSPECTIVE			FEATURE SUPPORTED BY BAYER	MEDIAPLANET
Professional Perspective on Choice				
<div><div>Dr. Keith Gordon Vice President, Research, Canadian National Institute for the Blind</div></div> <div>How have treatment options for AMD/diabetic retinopathy/RVO changed in recent years?</div>		<div>What advantages do these new treatment options offer?</div>		<div>How important is it for patients to have knowledge and influence over their treatment options?</div>
<p>There are now two medications that are approved by Health Canada for these three eye conditions and are reimbursed by provincial drug plans.</p> <p>For patients who have lost a significant amount of vision as a result of eye disease, they can learn to rebuild their independence and lead the lives they want by accessing services provided by vision rehabilitation organizations such as CNIB as well. CNIB vision rehabilitation specialists across Canada work with people of all ages in their homes or in their communities to provide personalized support services. Depending on the need, these services may include the teaching of independent living skills that enable people to regain independence within their homes and communities or they may include the teaching of mobility skills that enable people to travel safely in their community. Technology has transformed the lives of people who are blind or partially sighted. CNIB specialists can assist people to learn how to use life altering technologies and magnification devices. They can also introduce them to library services offered by CNIB in alternative formats that make reading materials accessible to people with vision loss.</p>		<p>The benefit this offers is that ophthalmologists are now able to treat a patient with a second medication if the first one did not work initially or stopped working after initial success. It has been shown that often a patient who fails to respond to one of the two approved medications may respond to the other.</p>		<p>It is always important that patients be fully informed about the medication with which they are being treated. Since every patient is different, some patients may respond to one medication differently from another. This is true with respect to both the effectiveness of the medication and its side effects. For this reason, patients need to be aware of any changes that may be made to their treatment.</p>
<div><div>Dr. R. Rishi Gupta Surgery and Diseases of the Retina, Vitreous, and Macula, Assistant Professor of Ophthalmology, Dalhousie University</div></div> <div>How have treatment options for AMD/diabetic retinopathy/RVO changed in recent years?</div>		<div>What advantages do these new treatment options offer?</div>		<div>How important is it for patients to have knowledge and influence over their treatment options?</div>
<p>In 2006 the results of two very important scientific trials called ANCHOR and MARINA were published in the prestigious <i>New England Journal of Medicine</i>. In these studies, patients with the wet form of macular degeneration received a monthly injection in their eye of a new anti-VEGF medication for two years. If untreated, this disease is known to result in legal blindness in the vast majority of people. But, this new treatment was shown to prevent this progression in most patients who received the medication. This treatment was also found to allow patients to actually regain significant amounts of the vision that they had lost!</p> <p>Fast-forward 10 years to the present day, and these medications have become the first-line treatment in most patients with several serious eye diseases. Other medications and management options (such as lasers and surgery) still play a role, but have taken a back seat.</p>		<p>The biggest advantages that these newer options offer are that:</p> <p>a) More patients regain significant amounts of the vision that they had lost due to the disease.</p> <p>b) Fewer patients experience severe vision loss.</p> <p>For example, the recent report from an important trial called CATT showed that after five years, half of patients who received injections of anti-VEGF medications for wet macular degeneration were able to maintain driving vision. While not perfect, these results are much better than those seen with previous treatments. Macular edema due to diabetes or retinal vein occlusion have also been shown in many studies to respond extremely well to anti-VEGF medications compared with older treatments.</p>		<p>Patients often initially think only one injection will be needed to treat their eye disease. However, since the drug's effect in the eye lasts only a certain amount of time, it is not truly a cure for the disease. Repeat visits are typically needed to maintain or save vision. Patients need to take time off work and travel to see their ophthalmologist, and may need to make other arrangements around their appointments. This is not always easy, so empowering patients to understand their disease and make a commitment to their treatment options is very important.</p> <p>Of course, it is important for every patient to lead a healthy lifestyle and cut out risk factors for these diseases. Eat a healthy diet, exercise, and see your family doctor regularly. Ask for help to stop smoking. If you have diabetes, work with your health care team to meet your goals.</p>
<div><div>Dr. Dennis Ruskin Optometrist</div></div> <div>How have treatment options for AMD/diabetic retinopathy/RVO changed in recent years?</div>		<div>What advantages do these new treatment options offer?</div>		<div>How important is it for patients to have knowledge and influence over their treatment options?</div>
<p>Probably the most significant breakthrough in the last 10 years to prevent vision loss occurred with the landmark research by Dr. Folkman, who pioneered the understanding of angiogenesis or the growth of new blood vessels from surrounding tissues. Folkman's work showed that cancer tumor's release a substance called VEGF that stimulates the growth of new blood vessels. Folkman's work inspired other researchers to develop new medicines that contain an anti-VEGF ability to offset a tissues stimulus to grow new blood vessels. The unintended growth of new blood vessels can interrupt retinal physiology causing blindness.</p> <p>Anti VEGF drugs have been used successfully to treat patients with AMD, Diabetic Retinopathy, and Retinal Vein Occlusion. When used on a periodic basis, antiVEGF drugs curtail neovascularization or the growth of new blood vessel formation in the retina. Recent studies have shown that these new drugs improve and stabilize vision safely.</p>		<p>Ten years ago before the introduction of antiVEGF drugs specifically for ocular disease, many patients who received the gold standard treatment at that time continued to experience a visual loss and this may have impaired their quality of life. AntiVEGF drugs have the best track record thus far to enable a patient to maintain their vision safely over time.</p>		<p>Patients who have sight threatening disease and those who may have a family history of vision loss should become acquainted with the lifestyle factors that may reduce the incidence of the disease. For example, curtailing smoking, having a healthy diet and periodic exercise may reduce the risk of these diseases.</p> <p>Patients should be aware of common treatment options. They should consult their doctor if they have any questions about symptoms related to treatment of the disease.</p>
<div><div>Dr. Robert G. Devenyi Ophthalmologist-in- Chief, Director of Retinal Services, The Donald K. Johnson Eye Center, The University Health Network</div></div> <div>How have treatment options for AMD/diabetic retinopathy/RVO changed in recent years?</div>		<div>What advantages do these new treatment options offer?</div>		<div>How important is it for patients to have knowledge and influence over their treatment options?</div>
<p>The therapeutics have improved dramatically for these patients. We now have drugs which are much better alternatives to laser therapy, which was the treatment we used to use in the past.</p>		<p>The visual results with the new drugs are far superior to what we used to see with older therapies.</p>		<p>I think it is very important that patients are aware of all the therapeutic options and the rationale for each of these options. I always believe that the best therapy should be chosen irrespective of price. That's what I would want for myself and my family members.</p>



TIPS

What to Ask Your Vision Care Specialist

- ❶

How often should I see my eye care professional or ophthalmologist?
- ❷

Are there things I can do to delay visual deterioration and save my sight?
- ❸

Are there lifestyle changes I can make to help retain or improve vision health?
- ❹

What should I do if I observe changes in my vision?
- ❺

Is there a testing and examination process for properly diagnosing AMD, DME, or RVO?
- ❻

What choices of treatment are available to manage my eye condition?

Take Action, You Have a Choice

Hi, my name is Louise Gillis, President of the Canadian Council of the Blind (CCB), an organization governed by individuals with vision loss. Part of our mandate is to promote eye care and prevent blindness, as well as implement measures to conserve sight, create a close relationship with the sighted community, and provide employment opportunities for those with vision loss.

Vision loss is a difficult condition to manage, as it has no boundaries with respect to gender, income, ethnicity, culture, other disabilities, or age. What is alarming to us is that in many instances, vision loss is easily preventable and sometimes is simply symptomatic of other health issues that can be controlled. This is why as an organization, we are committed to a proactive integrated health approach for early detection — improving the quality of life for all Canadians, including you.

Eye health can often be the very lowest medical concern to be attended to for Canadians because, in the majority of cases, one does not die from eye disease. This is why it is essential for you to bring eye care to the forefront of your health, so that the best possible treatment can be provided before major problems occur. Permanent damage can occur prior to major symptoms, which is why acting now on your vision health is critical.

There is good news, in that historic advances in medical research have resulted in several pharmaceutical products which can dramatically reduce or reverse vision loss brought about by vision threatening eye conditions. Not all vision loss is completely preventable, but Health Canada has approved specific products to treat these conditions and give sight, as well as hope, back to those who have lost it.

However, there are other products which have been and continue to be used mostly for cost-effective reasons. These products can be untested, and have not gone through the rigorous testing required by Health Canada yet they are going to be recommended to the provinces so they can save health care dollars. Is this what we want for Canadians? I do not believe so. Why should a person have to use unapproved eye treatment for three to six months prior to getting the option to have *approved* treatments which could improve the quality of life?

You should have a choice

Patients who visit their eye doctor for the treatment of conditions such as age-related macular degeneration (AMD), diabetic macular edema (DME), retinal vein occlusion (RVO), or choroidal neovascularization in pathological myopia (mCNV) need to be *fully informed* of their choices in which drug to have



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ve injected. This informed choice should include (but is not limited to) information about the side effects of each available medication, the number of possible injections required, and treatment cost.

Treatment *cost* should not be the deciding factor. Sometimes *costs* can be less in the beginning, but with inadequate improvement in vision, treatment can become more costly. Currently there are two available drugs for treatment of these diseases, and patients need to have a choice in approved treatment.

CCB has worked with other patient groups to enable Canadians to get the best eye care possible. Research supports the use of current therapies in treating AMD, DME, and RVO. Until such time as unbranded drugs can be fully tested and approved by Health Canada, only branded treatments should be available.

Eye diseases can have a major impact on a person's career, independence, family responsibilities, quality of life, and daily living. We sponsor a major project to help prevent blindness — a mobile eye clinic. The Mobile Eye Clinic provides on-site eye exams at retirement homes and schools. It has been found that over 60 percent of seniors examined were in need of eye care, and many of them had the conditions mentioned above. Approximately 26 percent of students required further eye care. This evidence supports that Canadians do not currently have their vision at the forefront of their health. We could collectively be doing a better job to ensure what many would consider our most important sense — our sight — is kept intact throughout our lives.

The need for proper eye care is evident. Ensuring patients get approved medications to treat these conditions is even more important — as it can lead to an improved quality of life. Give yourself the chance to see the ones you love for the rest of your life. Talk to your doctor today about your vision health. **O**

Louise Gillis

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SURVEY SAYS...

Canadian patients and physicians shed light on vision health and access to medication concerns



DOCTORS SAY...



94% of doctors say that being unable to prescribe the most appropriate treatment because of cost is a barrier to good patient care.

9 in 10 doctors agree that overall quality of life of patients is negatively affected when treatment choice is impacted by cost, while 90% agree they should be able to prescribe the most effective medication for patients regardless of cost.

8 in 10 doctors agree that the cost of certain drugs regularly prevents them from prescribing the best medication for their patients.



3 in 4 Canadian doctors have witnessed a patient's health suffer at some point in the past year because they were unable to afford better medications.



CANADIANS SAY...

Among Canadians at large, **92% agree** that when they need medication, they “typically leave the choice of drug to my doctor because they are the medical expert.”

Likewise, **more than 9 in 10 agree** that their physician “should have the right to prescribe the best medication for me regardless of the cost to the health care system.”



97% of Canadians agree that they “have a right to the best medications that are approved for use in Canada.”

1 in 6 Canadians

surveyed say they already suffer from vision loss, such as eye- or vision-related problems not fixable by wearing glasses (examples include macular degeneration or cataracts).

7 in 10 Canadians agree that they are prepared to pay out of pocket for medical treatments and/or procedures that will improve their quality of life.