



A Stroke Strategy for Canada

‘We need to put knowledge into practice’

“New knowledge is important but the reality on the ground is that patients are not getting the care we know we could provide.”

– Dr. Antoine Hakim, CEO and Scientific Director, Canadian Stroke Network at Stroke Summit II, November 2003

By Cathy Campbell

The Canadian Stroke Network and the Heart and Stroke Foundation have joined forces to create a blueprint to improve the quality of life and health of Canadians.

This blueprint helps bridge big gaps between what the latest stroke research shows works and the current practice in most parts of the country.

It’s called the Canadian Stroke Strategy.

“Our mission is to reduce the impact of stroke on the lives of Canadians and, in order to do that, we not only have to generate new knowledge, we also have to follow through with real changes in the health-care system,” says Katie Lafferty, Executive Director of the Canadian Stroke Network (CSN). “Helping set up a framework and structure to make that happen is a priority.”

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Dr. Antoine Hakim, CEO and Scientific Director of the Canadian Stroke Network, above, says that a national strategy to battle stroke will save many lives.

Ontario woman living proof that health care changes work

Knowledge, know-how saved Trenton mother

By Lisa Fitterman

Before, Maryann Luff made excuses. Sorry, but she couldn’t go for a walk because she had to do laundry. Or, sorry, the movie would have to wait because that kitchen wasn’t going to clean itself.

No longer. Ever since the Trenton, Ontario mother of four suffered a stroke in 1999, she has foregone fighting dust bunnies to spend time with her family. Now 52, Luff is thankful she had her stroke just days after the launch of the demonstration phase of the Ontario Stroke Strategy, a massive, multi-pronged campaign to ensure quality care for every patient, no matter where they are.

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Blueprint: Bridging the gap

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The Canadian Stroke Strategy was created after stroke ‘champions’ first came together at a national Stroke Summit, held in St. Andrew’s, New Brunswick, in the spring of 2003. The Summit was organized by the CSN and the Heart and Stroke Foundation (HSF).

Thought-leaders, policy-makers, researchers, patients and advocates gathered to ponder the question: What can we do to make a difference?

What emerged was the realization that while research is advancing at a steady pace, gains in knowledge have not trickled down: New research findings aren’t always reaching physicians, nurses, rehabilitation specialists, hospital administrators, health ministries and, most importantly, patients.

And there are regional differences. While some hospitals are world leaders in stroke, others are falling far behind. Data gathered by the Registry of the Canadian Stroke Network reveal differences in the incidence of stroke and the survival rates across the country.

“People are falling between the cracks,” says Frank Nieboer, who along with his wife Louise, a stroke survivor, founded the Stroke Recovery Association of Alberta.

“Stroke has huge health-care costs, economic costs, social costs and family costs. We’re funding research that works. Now, taking that new knowledge to the bedside is really important.”

So, the CSN and HSF looked to a model created in Ontario to battle stroke, a plan called the Ontario Stroke Strategy. They determined that this innovative approach, developed by HSF and the provincial government, could be rolled out on a national level, raising standards across the country.

They also saw grassroots movements gaining ground in all parts of the country to push the cause. Fuelled by frustration



There have to be some real changes in the health-care system to reduce the impact of stroke on the lives of Canadians.

over lack of services and the growing incidence of stroke, people were demanding action, asking: ‘Why are so many Canadians suffering when stroke is more preventable and treatable than ever before?’

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Strategy: ‘There’s no going back’

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“Ultimately, what the Canadian Stroke Strategy is all about is enabling the provinces and local and regional champions to get the investment they need and to make system changes and improve best practices. The strategy creates a support structure at the national level,” Ms. Lafferty says.

The Canadian Stroke Strategy includes national initiatives in public awareness building, guidelines and standards of care, professional development, coordinated research, and an information system for tracking patient information to determine what’s working and what isn’t.

“It behooves us to develop and apply a strategy that can be used by every province and territory to maximize success in controlling the risk factors for stroke and providing treatment when a stroke does occur,” says Dr. Antoine Hakim, CEO and Scientific Director of the CSN.

“There’s no going back . . . The strategy will lead to huge improvements in outcomes. . . .The CSN has a registry to gather data and monitor progress in hospitals. And it has strong research. The Heart and Stroke Foundation has well-developed community networks and a strong history on the prevention side.”

– Sally Brown, CEO, Heart and Stroke Foundation of Canada



Sally Brown



Katie Lafferty

Sally Brown, CEO of the Heart and Stroke Foundation of Canada, said it’s clear that “there’s no going back . . . The strategy will lead to huge improvements in outcomes.”

“The evidence is so overwhelming that stroke patients can do so much better in a coordinated stroke-focused setting. We have to catalyse change,” Ms. Brown says.

She said that the CSN and HSF have combined forces to create “a powerful partnership.”

“The CSN has a registry to gather data and monitor progress in hospitals. And it has strong research. The Heart and Stroke Foundation has well-developed community networks and a strong history on the prevention side.”

The strategy is currently led by a joint planning committee, chaired by Mr. Nieboer, who sits on the Boards of CSN and HSF. Both organizations are investing in the initiative.

“The CSN and HSF make a good partnership,” Mr. Nieboer says.

The Canadian Stroke Strategy document was coordinated by Ms. Lafferty and Mary Elizabeth Harriman, Associate Executive Director of the Heart and Stroke Foundation of Canada.

The idea quickly caught on. At a second Stroke Summit, held in November 2003 even more people came to the table and momentum for the national effort started to build.

In June 2004, the Canadian Stroke Strategy was launched.

It signals that change is on the way.

IT’S A FACT

Only 19 per cent of Canadians are able to identify high-blood pressure as the single most important risk factor for stroke

– National Stroke Survey,
Canadian Stroke Network,
December 2003

Ontario: Helped people see opportunity

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She's thankful that the butcher who saw her collapse to the ground had read a story about stroke in the previous Saturday's newspaper and knew to look at the clock so he could tell emergency personnel exactly when she fell. She's thankful that one of the paramedics recognized her symptoms and insisted on taking her, sirens screaming over 110-odd kilometres, to the newly created regional stroke centre at Kingston General Hospital, rather than to the local emergency just a few streets away.

And she's thankful that she arrived in time to receive tPA, the clot-busting drug that must be administered within three hours of stroke onset. The only physical reminders she has of that day are three rigid fingers on her left hand.

"I just smile when people say, 'You're lucky,'" she said from her home. "In a way, luck had nothing to do with it. It's knowledge and know-how. If my region hadn't been part of the demonstration project, I know that I'd be in lots worse shape than being unable to grip a mug of coffee."

In 2000, the demonstration project ended and the Ontario Stroke Strategy became government policy.

The Strategy: over the past five years, it has changed the way strokes are managed in Ontario and now serves as an example for a similar cross-Canada initiative, called the Canadian Stroke Strategy, that aims to be in place everywhere by 2010.

Like every good tale, its story deserves to be told and retold, if only to glean how nine regional stroke centres, 18 district stroke centres, 19 stroke prevention clinics and a commitment of \$30 million a year in provincial funds could be created from nearly nothing.



Walter Gretzky and Mary Lewis of the Heart and Stroke Foundation of Ontario helped push the need for the Ontario Stroke Strategy.

"The key was to make stroke a 'win,' not a 'demand' on government. Stroke has an impact on so many that almost everyone knows someone dealing with its consequences."

– Mary Lewis, Senior Manager of Government Relations, Heart and Stroke Foundation of Ontario

It began in the mid-1990s, when a group of neurologists approached the Heart and Stroke Foundation of Ontario to ask for its help in raising awareness of the warning signs of a stroke because there was a new drug available that could reduce the effects of ischemic strokes as long it was administered quickly.

The Heart and Stroke Foundation of Ontario realized that public awareness wasn't enough. What was truly needed was significant systems changes and heightened professional education across Ontario.

Mary Lewis, the Foundation's Senior Manager of Government Relations, said that the system was ill-equipped to respond

properly and with sufficient speed, given that only four per cent of acute care hospitals in the whole of Ontario had dedicated stroke units, and only 24 per cent of emergency rooms had a stroke protocol.

What began was a complex campaign that would touch politicians, civil servants, healthcare providers and the public all at once. Lewis said the Foundation couldn't do it on its own, so it helped organize a coalition of provincial organizations that were committed in principle to improving stroke care.

"Our role was to act as a catalyst and champion for system change," she said.

The coalition got leading hospitals in different regions of the province to agree without any guarantee of future funding to be "demonstration sites" for enhanced stroke care over a three-year period. These hospitals – London Health Science, Hamilton Health Science, Kingston General and several in the West Greater Toronto Area – became "stroke centrals," with equipment and highly skilled staff who could respond on a 24-hour basis.

The Heart and Stroke Foundation of Ontario also tested its mass media campaign on the warning signs of stroke in three communities and developed professional education resources for ambulance staff, as well as physicians and nurses in emergency rooms.

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Ontario: It's only the beginning

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Realizing that the involvement of the government was crucial, the Foundation spearheaded a government relations program. Volunteers, some of them stroke survivors, fanned out to visit MPPs in their ridings, Foundation staff forged enduring relationships with civil servants in the health ministry and high profile stroke survivors like Walter Gretzky and Ian Scott, Ontario's former attorney-general, spoke publicly for the cause.

"The key," said Lewis, "was to make stroke a 'win,' not a 'demand' on government. Stroke has an impact on so many that almost everyone knows someone dealing with its consequences." And in the end, the timing helped: new policy staff at the provincial ministry recognized the importance of the strategy and its potential.

Thus began a strong partnership, further cemented by a provincial commitment, beginning in 2000, to invest \$30 million a year. Lewis said the demonstration sites were key, and that the enlightened funding committed by the Ministry of Health and Long-Term Care in Ontario secured the future for a comprehensive stroke strategy that is still a work in progress.

District stroke centres have been set up, especially in regions where distance is a factor. Stroke prevention clinics are filling the critical role of following up with people who have TIAs, or mini-strokes, to do the necessary diagnostic work-up and to support lifestyle counseling. The Strategy also reaches across the full continuum of care with health promotion components as well as rehabilitation pilot projects and programs to enhance stroke care in the community and long-term care facilities.

The results have been astounding. In south-eastern Ontario – a region that encompasses 20,000 square kilometers – 20.6 per cent of ischemic stroke patients treated at Kingston General regional stroke centre now receive tPA, and across all regional stroke centres the average is 9.5 per cent.



Maryann Luff, centre, credits the Ontario Stroke Strategy with saving her life. Maryann says her greatest concern is being around for her two special-needs children.

(The national average in the U.S. ranges between 1 to 3.5 per cent.)

Cally Martin, the region's stroke program manager, noted that a smaller district stroke centre is already operating in Belleville, as are two stroke prevention clinics in Belleville and Brockville. Another clinic is set to soon open in Perth.

"All this demonstrates the benefit of an organized approach," Martin said in an interview. "You see, tPA may be the snazzy part, but it's only the beginning. There are lots of things in terms of community integration, long-term care and prevention we want to do. We could work day and night on them."

As for Luff, both the butcher and the paramedic, who were stroke aware as a result of the strategy, came to visit her in hospital. There were a few tears, but always, there was the sense that but for the hard work of a myriad of professionals and volunteers, they would have cried that much harder. For she was the Strategy come to life.

IT'S A FACT

According to data gathered by the Registry of the Canadian Stroke Network in 2001 and 2002, only 18 per cent of stroke patients were admitted to a specialized stroke unit and only 31 per cent received organized stroke care in hospital. There were significant variations across the country – many patients received no organized stroke care at all.

– Registry of the Canadian Stroke Network

Southern Alberta Stroke Network ‘a great example of what needs to happen across Canada’

By Cathy Campbell

Sometimes you have to travel half-way around the world to see what needs to be done at home.

Just ask Alberta neurologist Tim Watson. A few years ago, he and his family moved back to Calgary after living in Saudi Arabia, where he worked to improve hospital-based stroke care.

Despite major advances in research, knowledge, drugs, surgery and imaging techniques, he realized that stroke patients in small towns across Southern Alberta were not seeing the benefits.

Dr. Watson knew that something had to be done to bridge this urban-rural divide. If not, the situation would only get worse because the incidence of stroke is rising, specialists are in short supply and Alberta’s large rural population is spread over a wide geographic area.

So, Dr. Watson and his colleagues resurrected an idea first floated a few years earlier: Create a network of stroke centres,

“It’s important to get organized so people can expect the same standard of care, no matter where they live.”

– Frank Nieboer, President of the Stroke Recovery Association of Alberta and Board Member of the Canadian Stroke Network and Heart and Stroke Foundation of Canada



“We need to close the gap between what we know and what we do,” says Dr. Alastair Buchan, left, Director of the Calgary Stroke Program.

linked by a sophisticated telemedicine system that extends access to stroke expertise, to deliver the best possible care to patients in every part of the province.

“We need to close the gap between what we know and what we do,” says Dr. Alastair Buchan, Director of the world-renowned Calgary Stroke Program, who first developed the network concept for Southern Alberta.

The idea includes setting up regional stroke prevention clinics to promote public education about the risk factors for stroke, better training for paramedics and health-care providers in rural areas, the development of stroke wards in local health care facilities and improvements in the quality and availability of rehabilitation.

But its cornerstone is a sophisticated communication network that would enable physicians in Calgary to deliver arm’s length consultation services – 24 hours a day – to colleagues in smaller communities. This would allow more patients to be

treated with clot-busting drugs in their local hospital and help more people walk away from stroke.

“It’s important to get organized so people can expect the same standard of care, no matter where they live,” says Frank Nieboer, President of the Stroke Recovery Association of Alberta. “The population outside of Calgary is not well served and we have seen first hand the gaps in the current system . . . This is an exciting and bold initiative.”

Last year, Dr. Watson and Teri Green, coordinator of the Calgary Stroke Program, began a series of face-to-face meetings with physicians at hospitals in Lethbridge, Medicine Hat and Red Deer to gauge their interest in joining forces to start the Southern Alberta Stroke Network. The response was overwhelmingly positive.

They also involved the University of Calgary Stroke Team, the Heart and

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Stroke Foundation and the Canadian Stroke Network.

“We all recognized the strength of working together,” Dr. Watson says. This network would draw together four of Alberta’s health regions and “raise the banner for stroke.”

Katie Lafferty, Executive Director of the Canadian Stroke Network, calls the Southern Alberta initiative a “great example of what needs to happen across Canada.”

In February, the Southern Alberta Stroke Network submitted a proposal to the Alberta Ministry of Health and Wellness, requesting \$6.5 million in start-up funding for the program. Another \$5 million a year is required for operating costs.

Dr. Watson says that the cost will easily be recovered in lowering rates of disability and shortened lengths of hospital stay. Alberta already spends about \$200-\$300 million a year on stroke and outcome data



Frank and Louise Nieboer are founders of the Stroke Recovery Association of Alberta.

of the Calgary Stroke Program clearly indicates that a significant reduction in costs is achieved for a relatively modest investment in stroke programs.

The groundwork is already underway to develop a sister program in the northern half of the province connecting smaller communities with specialists in Edmonton. Eventually, this will evolve into a province-wide network, which would, in turn, plug into the Canadian Stroke Strategy and development of national guidelines for stroke care.

“The bar has to be visible before people can start to strive for it,” Dr. Watson says.

Already, discussions around the Southern Alberta Stroke Network are bringing early payoffs.

For example, Calgary physicians recently treated a 41-year-old Medicine Hat woman, who had a stroke in her bathroom at 7 a.m. one morning and was transferred to their stroke unit within a few hours.

A mechanical clot retrieval device was used to snag a blood clot in her brain and pull it out of the blocked artery. Instead of losing her life, or living with disability for 30 years, the Medicine Hat patient was able to leave hospital within five days.

“Creation of this network is helping to spread the word about what therapies are available to stroke patients,” says Dr. Watson. “We’re increasing physician awareness. Outlying centres have a number to call.”

In addition to saving lives, the telemedicine system will function as a state-of-the-art teaching tool between neurologists in Calgary and emergency room doctors in smaller communities. “Telemedicine provides access to the most teachable moment, when someone arrives in an ER with a life threatening problem.” Dr. Watson says.



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The principal intention of the program is not to transfer most patients to the urban centre, but to improve care within local hospitals, increase resources, boost skill levels and streamline care.

Thanks to the work of local stroke champions in the regional centres, major progress in the organization and delivery of stroke care is already being made in Red Deer, Medicine Hat and Lethbridge.

In the end, the result of pulling all these pieces together will be “a new standard of stroke care in Alberta,” says Sally Brown, CEO of the Heart and Stroke Foundation of Canada.



Jane Farquharson, Clare O'Connor and Judy Black are involved in efforts to reorganize stroke care and rehabilitation in Nova Scotia.

Reorganizing stroke care in Atlantic Canada

By Elaine Flaherty

HALIFAX

Atlantic Canadian leaders in stroke care and research hope to show the rest of the country how provinces can work together to create better and more organized care for stroke patients.

Under the aegis of Dalhousie University's Atlantic Health Promotion Research Centre, teams comprised of representatives from government health departments, the Heart and Stroke Foundation and clinicians are working together to craft integrated stroke strategies that will meet the needs of each of their provinces' residents.

"It's really a template for working together for health charities and across governments

and academic institutions," says Jane Farquharson, Executive Director of the Heart and Stroke Foundation of Nova Scotia and co-investigator on the Atlantic Canada Integrated Stroke Strategy Project.

"It's a great opportunity for us to collaborate on something that's important to all of us and that has a direct link to all four governments."

Ontario was first off the mark with its integrated stroke strategy, and Nova Scotia aims to be close behind.

Reorganizing Stroke Care in Nova Scotia, the 2002 report of the Heart and Stroke Foundation of Nova Scotia, outlines ways to reorganize stroke care and rehabilitation and calls for improved public education on how to recognize and prevent strokes.

Nova Scotia's provincial government accepted the strategy's recommendation two years ago, and in April, Finance Minister Peter Christie reaffirmed his government's support.

The continuing support is welcome, says Clare O'Connor, who liaises with government for the Heart and Stroke Foundation of Nova Scotia.

"The provincial government increased the budget for health and the finance minister said that implementing the stroke strategy was a top priority for his government in 2004-2005," she says.

"Increased overall funding, combined with the policy direction given to organized stroke care is great news. It reaffirms the significant impact that can be had by a committed group of volunteers such as those we've been privileged to work with at the Heart and Stroke Foundation of Nova Scotia and a government that is listening."

It's hoped that the success of the Nova Scotia strategy will smooth the way for the other three Atlantic provinces.

"What we're trying to do is develop a plan for Nova Scotia and then use the learnings to adapt it to New Brunswick, Prince Edward Island and Newfoundland," says Dr. Stephen Phillips, director of the acute stroke program at Halifax's Queen Elizabeth II Health Sciences Centre and co-investigator on the Atlantic stroke project.

The other three provinces are in earlier stages of developing stroke strategies, although Prince Edward Island is readying to hire its "stroke navigator." Each province will eventually hire such a navigator to steer the development and implementation of its strategy, says Dr. Renee Lyons, the project's principal investigator and director of the research centre. Drs. Lyons and Phillips are also research leaders with the Canadian Stroke Network.

Nova Scotia's progress will be used to the other provinces' benefit, Dr. Lyons says. Its successes and the obstacles it

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Atlantic: Translating research into action

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faces will provide key information for everyone else.

“We’ll beg, borrow and steal. Nobody will have to start from scratch.”

The Atlantic Integrated Stroke Strategy Project is itself a research project studying how to bring about policy change.

“The idea is to use this as a case study for how you implement policy change in the rest of Canada and other parts of the world,” says Dr. Lyons.

Or as Dr. Phillips describes it, “It’s a case study of a project in action.”

It is one of four Canadian Stroke Network-funded projects looking at knowledge translation, the art, or science, of taking what experts know and delivering it to the people who need to know it.

“The problem is that there is a huge gap between what we know and what we actually do, and it’s all about trying to close that gap,” says Dr. Phillips. “How do you translate the research findings into action?”

Delivering the information to those who need it is particularly critical in this region of the country.

The Yarmouth Stroke Project is also dealing with problems particular to rural areas. These challenges range from finding ways to get patients to appointments and support group meetings to helping stroke survivors whose emotional and cognitive problems haven’t been addressed.



“We have, in Atlantic Canada, the highest prevalence of stroke risk factors,” says Dr. Stephen Phillips.

“We have, in Atlantic Canada, the highest prevalence of stroke risk factors,” says Dr. Phillips. “And we do have higher disease frequency.”

The research is meeting the road in Yarmouth N.S., where a pilot project is looking at improving care for people with chronic health problems in rural areas.

“If we can look at stroke care and how to do things differently, it could be a model for other places,” says Dr. Lyons, who heads the Yarmouth project.

First researchers “painted the landscape,” says Dr. Lyons, studying the area’s population and needs, looking at its resources, and then looking at the best practices for stroke care from around the world.

And now the project is making changes in health care delivery, basically beginning to implement Nova Scotia’s stroke strategy in Yarmouth. It will become the area’s designated stroke care centre, filling one of the strategy’s recommendations that there should be one hospital in each region where stroke patients will be treated.

The Yarmouth project is also dealing with problems particular to rural areas, says Dr. Lyons. These challenges range from finding ways to get patients in far-

flung areas to appointments and support group meetings to helping stroke survivors whose emotional and cognitive problems haven’t been addressed.

Consulting stroke survivors and their families has helped the project’s workers understand how best to fill their needs, says Blaise MacNeil, the CEO and President of the Southwest Nova District Health Authority. “It should give us the required elements to construct a program to help that population,” he says. And “the key is that every change in stroke care that health providers now make is backed by extensive research,” he adds.

“We’ve learned a lot about what it’s like for families living with stroke,” says Dr. Lyons.

And while financial resources are slim in rural areas, human resources are not.

“Don’t underestimate what rural communities can do once they’re organized,” she says.

With Nova Scotia moving ahead on its stroke strategy, the Heart and Stroke Foundation has formed the Integrated Stroke Advisory Committee to serve as an umbrella group for anything related to stroke care.

“It encompasses everything from education to health policy related to getting the Integrated Stroke Strategy implemented, to programs, public education and awareness campaigns,” says Judy Black, the foundation’s cardiovascular emergency care/rehabilitation co-ordinator.

Adds Ms. O’Connor, “We don’t need to be waiting for full implementation of the Nova Scotia Integrated Stroke Strategy. We can move forward in other areas of stroke. The strategy will benefit Nova Scotians in time, but in the meantime we can be doing things on other issues that will have immediate benefits, for example working on increasing public awareness around recognizing the signals for stroke so people can take action.”

Stroke strategies ‘an international effort’

By Sheri Pincovski

Scotland, Australia and the European Union are mobilizing in the battle against stroke.

Researchers, students, scientific organizations, hospitals, health charities, and national governments are coming together in these countries with the goal of alleviating the impact of one of the top killer diseases and the leading cause of adult disability.

They have developed national stroke strategies to educate the public, improve access to stroke care, and harmonize the management of stroke across provincial and state governments.

In Scotland, they’re taking research knowledge and putting it into the hands of doctors and nurses. Australians are working to ensure adequate stroke care for everyone, including Aboriginals who have higher mortality rates. The member countries of the European Union, meanwhile, are training the next generation of stroke care specialists.

The Canadian Stroke Strategy, developed in partnership between the Canadian Stroke Network and the Heart and Stroke Foundation of Canada, shows many parallels with these other national initiatives.

“A number of countries are addressing these problems, and clearly the exchange between the Canadian Stroke Strategy and other national initiatives is very important,” say Dr. Antoine Hakim, CEO and Scientific Director of the Canadian Stroke Network.

Many different treatments have been developed to manage stroke care, but in Scotland “the problem seems to be implementing what works,” says Dr. Peter Langhorne, a Professor of Stroke Care at the University of Glasgow.

Scotland has turned to developing a national stroke strategy as a method of dealing with knowledge translation – getting laboratory results into practical



An international movement to end the scourge of stroke is gaining ground in Scotland, the European Union and Australia.

use in hospitals and clinics across the country, where the patient benefits most.

In March 2004, clinical standards were published to guide medical personnel in the care of stroke patients. The aim is to break down broad, abstract goals into “specific criteria by which hospital services can be judged,” says Dr. Langhorne.

These recommendations range from the specific and pragmatic – that all people with a diagnosis of stroke should be managed by a stroke specialist – to the long-term, through the creation of stroke units. It’s not just a physical location in a hospital: a stroke unit results from the application of a different way of thinking – a holistic, multi-disciplinary approach

which integrates all areas of stroke care in hospital.

Within the next year, hospitals in Scotland will receive visits from representatives of the National Advisory Committee on Stroke to evaluate their progress in the implementation of the guidelines. Also participating in these assessments are representatives from Chest, Heart and Stroke Scotland, a major health charity which contributed to the development of the recommendations.

Increasing the effectiveness of the Scottish stroke strategy also means targeting specific high-risk groups for improved stroke

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International: ‘Makes sense to work together’

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prevention, such as people with hypertension – one of the major risk factors for stroke – and those in lower socio-economic classes, who traditionally have higher rates of stroke and mortality.

Australians are addressing this same problem in a national stroke initiative, but here the health care disparity exists for Aboriginals and Torres Strait Islander peoples, who die from heart, stroke, and vascular disease at twice the rate of other Australians.

A national stroke strategy was necessary in Australia because of “the increasing evidence that interventions were effective and they weren’t being uniformly applied across the country,” says Dr. Geoffrey Donnan, Director at the National Stroke Research Institute and Professor at the University of Melbourne and Austin Hospital.

“In this country, there’s an enormous difficulty in getting health services to these minority groups.”

The recommendations of the National Strategy for Heart, Stroke, and Vascular Health in Australia include educating the public about the risk factors and symptoms of stroke, and improving access to health

The recommendations of the National Strategy for Heart, Stroke, and Vascular Health in Australia include educating the public about the risk factors and symptoms of stroke, and improving access to health care services for Aboriginals and Torres Strait Islander peoples.



Increasing the effectiveness of the Scottish stroke strategy also means targeting specific high-risk groups for improved stroke prevention, such as people with hypertension – one of the major risk factors for stroke – and those in lower socio-economic classes, who traditionally have higher rates of stroke and mortality.

care services for Aboriginals and Torres Strait Islander peoples.

Dr. Donnan’s hope is that the strategy will bring about “a uniform approach to stroke management Australia-wide... where all Australians have access to adequate stroke services.”

Currently only about 20% of Australians benefit from treatment at a specialized stroke unit. This is changing. A recent government investment of nearly \$12 million to develop 18 specialized stroke units in New South Wales was made possible through the influence of Australia’s national stroke initiative.

And there are other national stroke strategy success stories cropping up around the world.

Every year, the European Union Stroke Initiative operates a Stroke Summer

School, where young stroke researchers from 23 member countries come together to share experiences, knowledge, and, perhaps most importantly, to get to know one another.

“These are future opinion leaders,” says Dr. Markku Kaste, Chairman of the EUSI. “They should start to build their networks while they are young, so when they are in leading positions, they already have contacts across Europe.”

The EUSI funds all programs, lectures, and social events at the Summer School, requiring students to pay only for their travel expenses, “so that money is not an obstacle,” says Dr. Kaste.

The opportunity is not lost on the students, who learn how to manage stroke care, get updated on the latest clinical practices,

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World: Problem is growing

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interact with stroke specialists from across Europe, and create long-lasting friendships.

“It makes sense that we work together,” says Dr. Kaste.

The Summer School class of 2002 in Helsinki reunited a year later at another conference. The photos and stories on the web site reflect the students’ enthusiasm.

“Building these true international societies ...experts working together, that’s the only way you get things done,” comments Dr. Kaste. “Not with the money, but with friends, and your colleagues.” The EUSI is also engaged in many other activities, including the release of the

EUSI Recommendations for Stroke Management, approved by the European Stroke Council, the European Federation of Neurological Societies and the European Neurological Society. These recommendations are regularly updated by the EUSI, helping to harmonize stroke management in Europe.

The Canadian Stroke Network is aiming to tap into this movement. It is hosting a session on international stroke strategies at the World Stroke Congress in Vancouver. “Stroke is a worldwide problem, and it is growing,” says Dr. Hakim.

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Dr. Richard Riopelle, MD, McGill University

Dr. Aubrey Tingle, MD, President and CEO, Michael Smith Foundation for Health Research

Member Emeritus

Dr. H.J.M. Barnett, MD, University of Western Ontario

www.canadianstrokenetwork.ca

About the Canadian Stroke Network

The Canadian Stroke Network is an independent, not-for-profit corporation. It was established in 1999 to reduce the burden of stroke through leadership in research innovation.

It is made up of more than 100 of the country’s best and brightest scientists, clinicians, rehabilitation specialists and knowledge-translation experts from 24 universities across the country. Headquartered at the University of Ottawa, the Canadian Stroke Network brings together partners from government, industry and the non-profit sector, including the Heart and Stroke Foundation, one of the country’s largest health charities.



Canadian Stroke Network
Réseau canadien contre
les accidents cérébrovasculaires

The Canadian Stroke Network is part of the federal government’s flagship science and technology initiative, called the Networks of Centres of Excellence, or NCE program. The Networks of Centres of Excellence of Canada are unique partnerships among universities, industry, government and non-governmental organizations aimed at turning Canadian research and entrepreneurial talent into economic and social benefits for all Canadians. An integral part of the federal government’s Innovation Strategy, these nationwide, multidisciplinary and multisectoral research partnerships connect excellent research with industrial know-how and strategic investment.

