Stroke Update 2014

Stroke prevention and management in primary care

A free forum at the Accelerating Primary Care Conference

The Westin Edmonton Hotel November 23, 2014

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Stroke Update 2014

This free forum for primary care clinicians was held in conjunction with the annual Accelerating Primary Care conference in Edmonton, Alberta, November 23, 2014. The forum saw three physician leaders review the latest developments in the continuously advancing field of stroke prevention and care, with a particular focus on the role of primary care.

The forum was organised by the Alberta Health Services (AHS) Cardiovascular Health & Stroke Strategic Clinical Network (SCN) and the Institute of Health Economics.

The forum was sponsored by Boehringer Ingelheim (Canada), with support from Bayer.

Program

Detection and Treatment of Atrial Fibrillation: What's new in prevention and how to choose what's best for my patient.
University of Alberta,
WMC Health Sciences Centre.
Ken Butcher, MD, PhD, FRCP(C)

TIA Recognition and Management: Early triage risk stratification and treatment.
Thomas Jeerakathil, BSc, MD, MSc, FRCPC, FABN
Associate Professor, University of Alberta
Co-physician lead, ASPIRE TIA Triaging Project
Northern Stroke Lead CV/S SCN

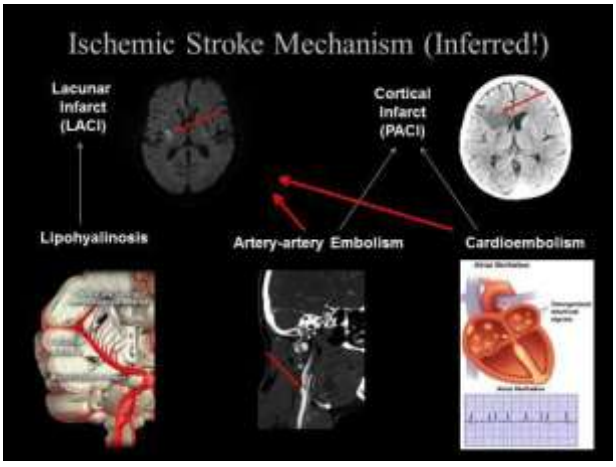
•Aligning health care policy with evidence-based medicine: When guidelines and policy conflict, what's a doc to do?
• An update on Cardiovascular Health and Stroke Strategic Clinical Network: Aligning with Primary Care.
Blair J. O'Neill, MD, FRCP(C), FACC
Professor of Medicine, University of Alberta,
Interventional Cardiologist, Mazankowski AHI
Senior Medical Director, CV Health and Stroke SCN,
Alberta Health Services
Past President, Canadian Cardiovascular Society

Detection and Treatment of Atrial Fibrillation: What's new in prevention and how to choose what's best for my patient.

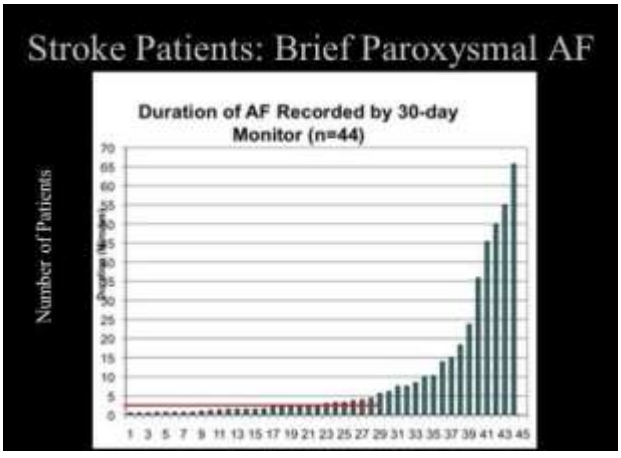
Dr. Ken Butcher

In this 45 minute presentation, Dr. Butcher reviewed how to diagnose stroke and discussed the burden of Cardioembolic and Cryptogenic Stroke. He talked about the recent advances in the treatment and prevention of Atrial Fibrillation and Cardioembolic Stroke, including discussion on the new oral anticoagulants.

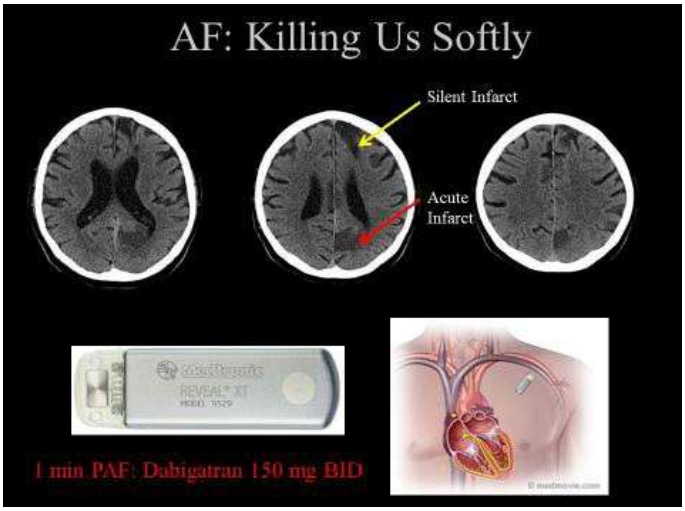
'Stroke diagnosis begins and ends with brain imaging – Time is Brain. Cardioembolic stroke now is the number one cause of stroke. Everybody who has a stroke gets the proper neuroimaging, in the ideal world if you don't see the stroke on a CT we like to do an MRI scan.'



'In our patient who has an event, and has no other risk factors for a stroke, even these brief runs of AF are significant'



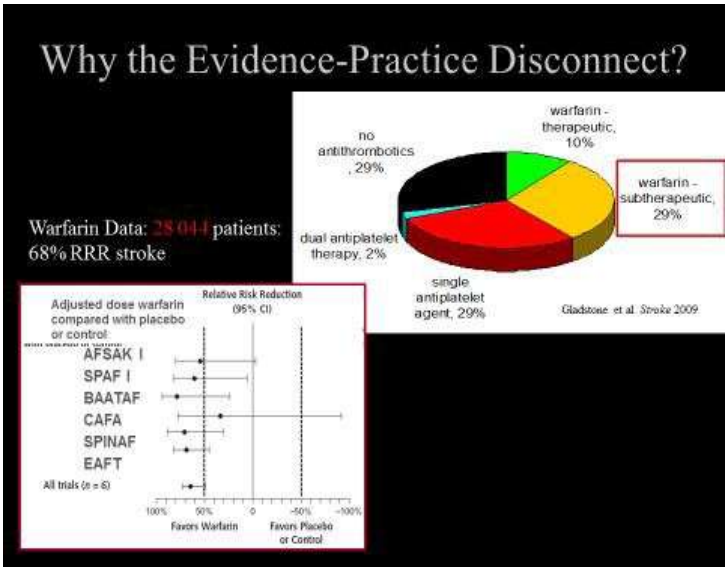
'When you see I your practice a patient with AF who you think has never had a stroke, it doesn't mean they actually haven't had a cerebral infarct. It never ceases to amaze me how much of our brains we can lose due to cerebral embolism and really just not notice it!'



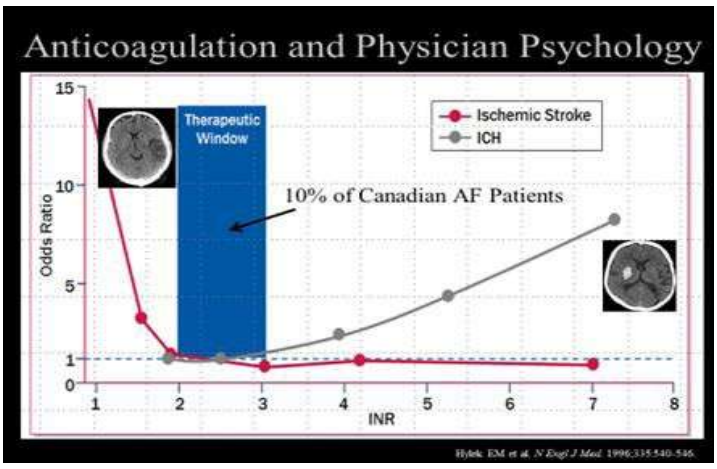
'The future is going to be more prolonged cardio rhythmic recording of one sort or another on our patients.'

How do we prevent cardio embolic stroke?

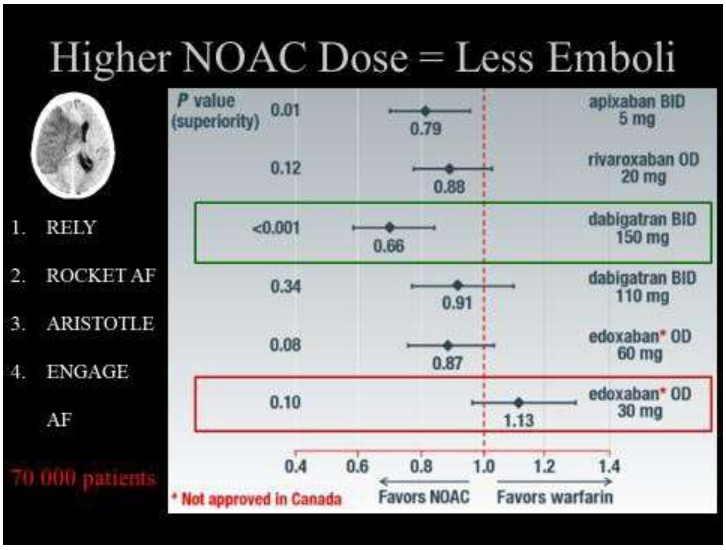
'Anticoagulation has been shown for quite some time to be an effective therapy. Evidence shows a 68% risk reduction, which is the most effective thing I can do in stroke clinic to prevent stroke.'



'Statistically the most likely event is an ischemic stroke, not a haemorrhagic one, so we need to turn our thinking around about how we're protecting our patients.'



'Direct oral anticoagulants are the drugs of the present and future, and they have and will continue to replace Warfarin.'

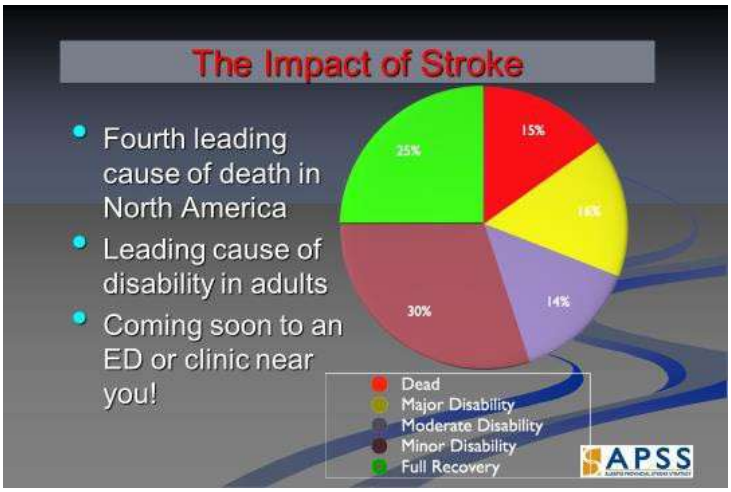


TIA Recognition and Management: Triage, Risk Stratification, and Treatment

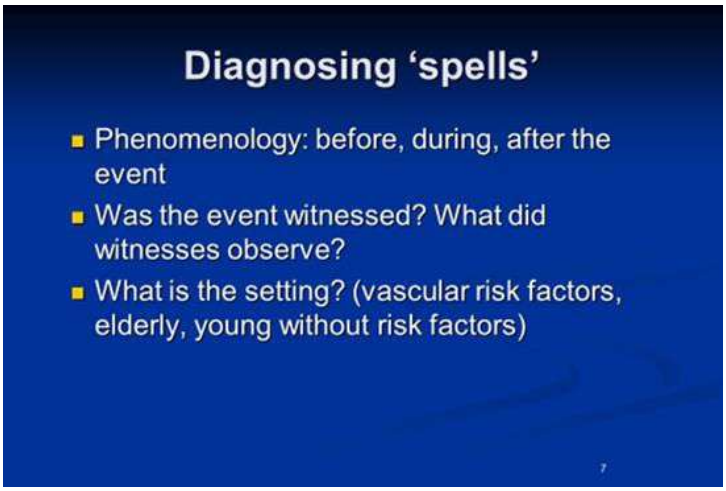
Dr Tom Jeerakathil

This presentation looked at the diagnosis of likely TIA syndromes and how to identify and manage the high risk TIA patient urgently. Dr. Jeerakathil also explained the mechanism for physicians to access rapid care for TIA.

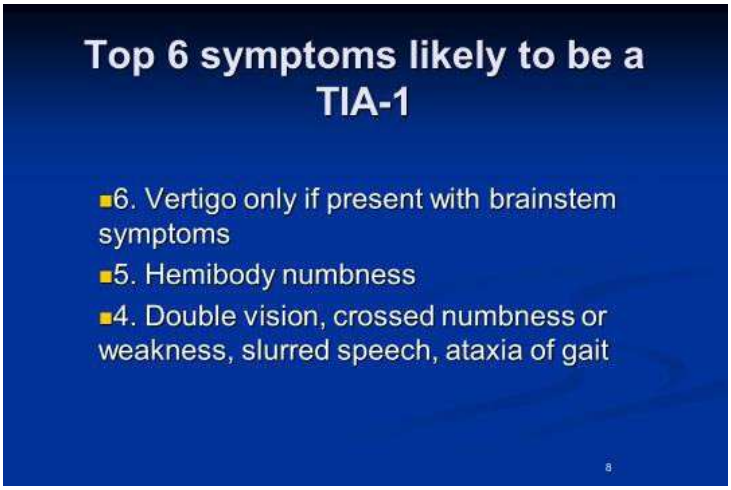
'Over 30% of stroke patients will end up dead or severely disabled. 50% will end up with a lesser degree of disability and one quarter will make a complete recovery. Stroke is the leading cause of disability in adults. We need to take advantage of any opportunity to prevent stroke.'

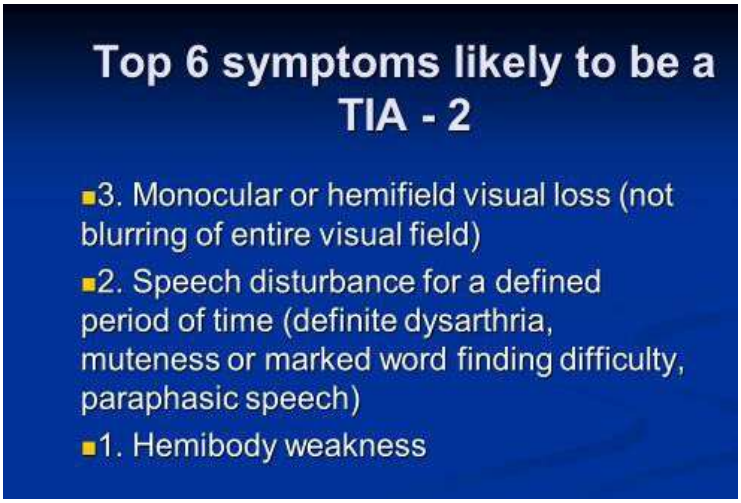


Diagnosing 'Spells'
'As you approach this event, you're entirely reliant on their history and that of bystanders frequentl



'From my experience these are the most important symptoms, in order of importance'



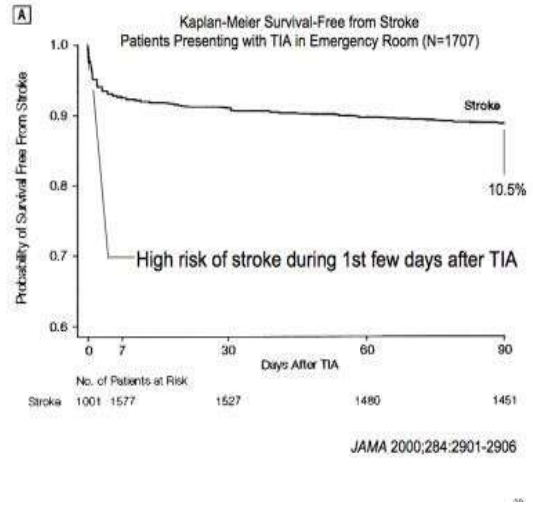


'You have the advantage in Primary Care, because you will be seeing them early on in the syndrome and sometimes they have residual signs and symptoms that are gone by the time we see them in ED'

Diagnosing 'spells'

- Phenomenology: before, during, after the event
- Was the event witnessed? What did witnesses observe?
- What is the setting? (vascular risk factors, elderly, young without risk factors)

'Up to 40% of strokes can be preceded by a TIA that might not have been recognised and may have been a golden opportunity for stroke prevention if we treated it in the right way.'



How do we stratify risk?

'Clinical features allow you to stratify risk. The highest proportion is in those with the highest score, but there's more people at medium risk and they actually have more events, so your risk prediction and triaging model has to include these.'

ABCD² Score

Rothwell et al. Lancet; 2007; 369: 283-292

	Yes	No
Age ε 60 yrs	1	0
Bp ε 140/90	1	0
Clinical Features		
Unilateral weakness (with or without speech disturbance)	2	0
Speech deficit without weakness	1	0
Duration		
> 10 min < 59 min	1	0
ε 60 min	2	0
Diabetes	1	0

Score ε 4 = High Risk

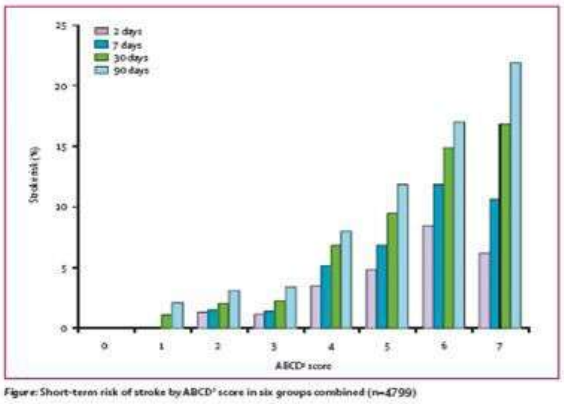


Figure: Short-term risk of stroke by ABCD² score in six groups combined (n=4799)

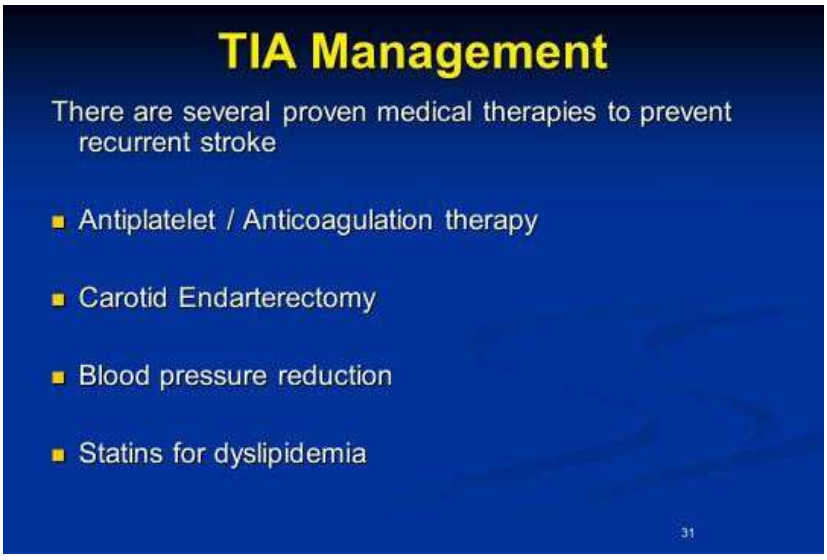
Predictive Value of the ABCD2 progostic score

ASPIRE/APSS TIA Triaging Protocol

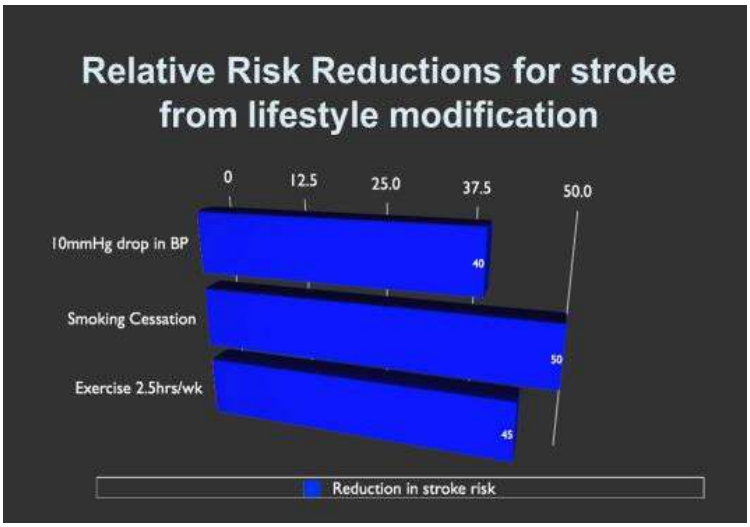
'We try to see the highest risk patients as quickly as we can…we recommend that you actually call the RAAPID lines even while you are in clinic. With a patient in front of you, you can speak to a stroke neurologist and we will triage the event with you.'

Why do we have to be so aggressive?

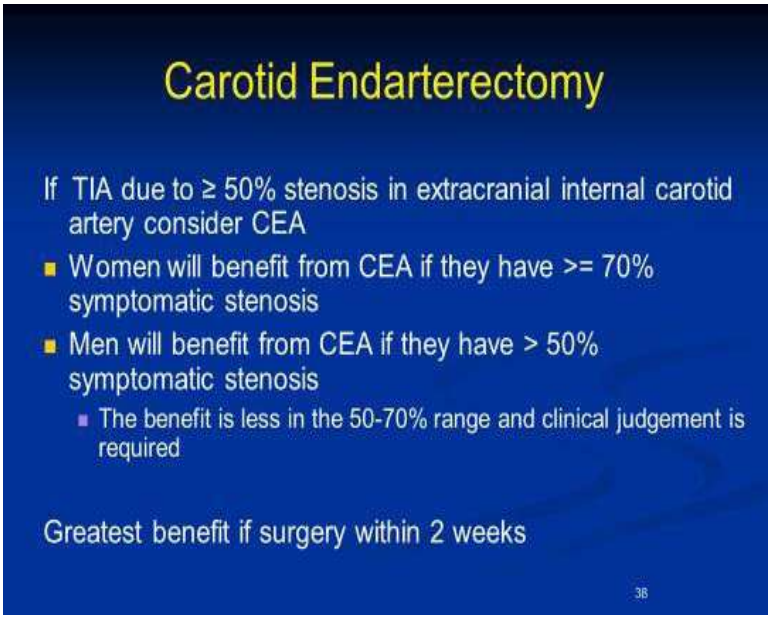
'After an urgent clinic model of next day or same day access, where the patient gets urgent brain imaging, vascular imaging of the neck and is started on a number of stroke prevention medications right away, what they found was an 80% relative risk reduction in risk of recurrent stroke after TIA'



'There are a number of proven treatments, including lifestyle modification.'



'Because the risk of stroke recurrence is front loaded, when you wait too long you get all the risk of the procedure and less benefit.'

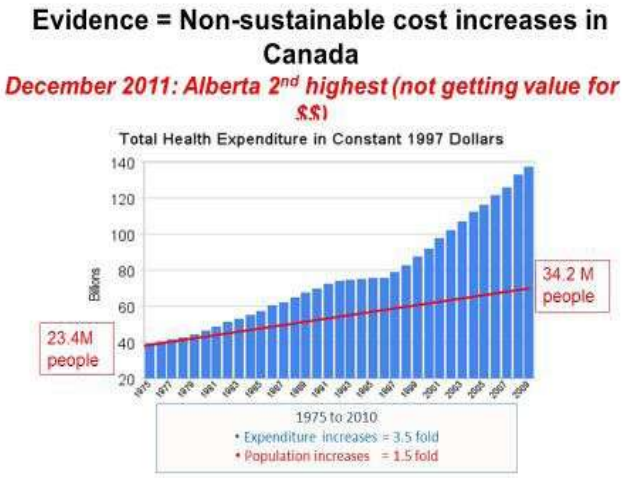


Aligning health care policy with evidence-based medicine: When guidelines and policy conflict, what's a doc to do?

Dr. Blair O'Neill

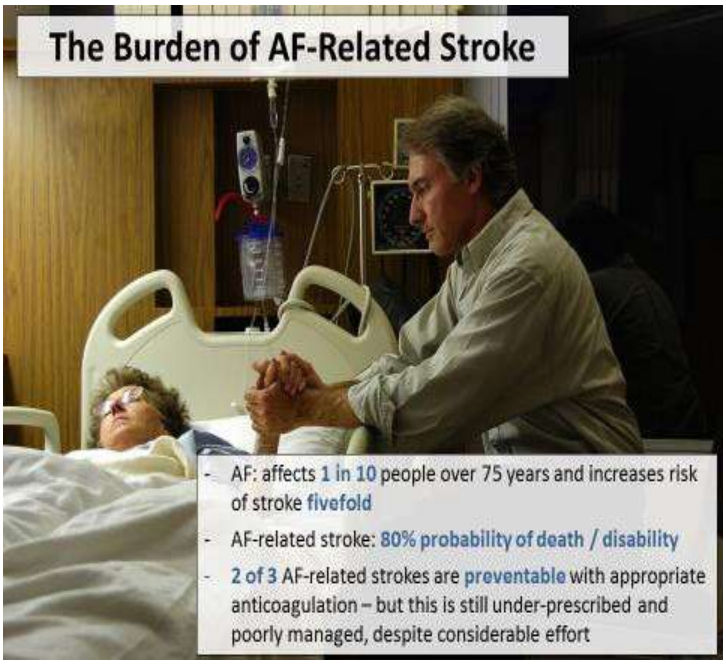
Having just completed his National role on the Executive of the Canadian Cardiovascular Society, Dr. O'Neill discussed some of the obstacles to the implementation of evidenced based medicine in the Canadian Health Care System, based on a paper he co-authored for the Canadian Journal of Cardiology.

'It's been harder for pharmaceutical companies to get their drugs approved. First of all, Health Canada has to approve them, then they have this other step, which is the Canadian Pricing Review Agency. So, despite evidence of benefit, sometimes drugs never come to the Canadian market because there is no agreement on price.'

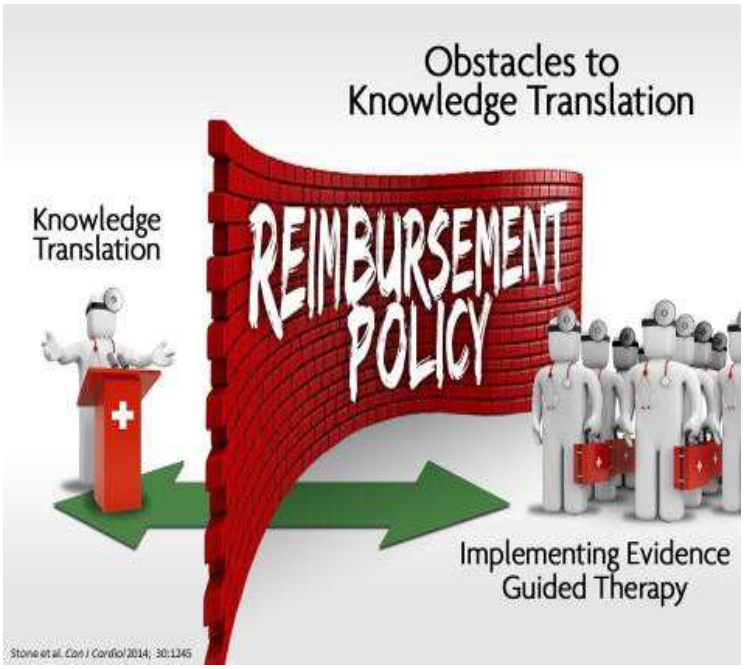


'There is a discrepancy with what a guideline might say and what a patient can in reality afford'

'With each decade of life over the age of 60 the risk of atrial fibrillation increases several fold, so, with the aging population, we are on the verge of an AF 'epidemic' because of the baby boomers. Of course, this is important because up to 1 in 5 strokes are caused by underlying AF.'



'We know we have difficulties in getting new practices adopted, even without policy barriers.'



'However preventing strokes is tremendously cost effective, avoiding the burden of long term care. The problem is we practice in a silo based system, where acute care and long term care are funded separately from pharmaceuticals, in practice leading to gaps in our systems of care – effectively, non-universality of our universal health system.

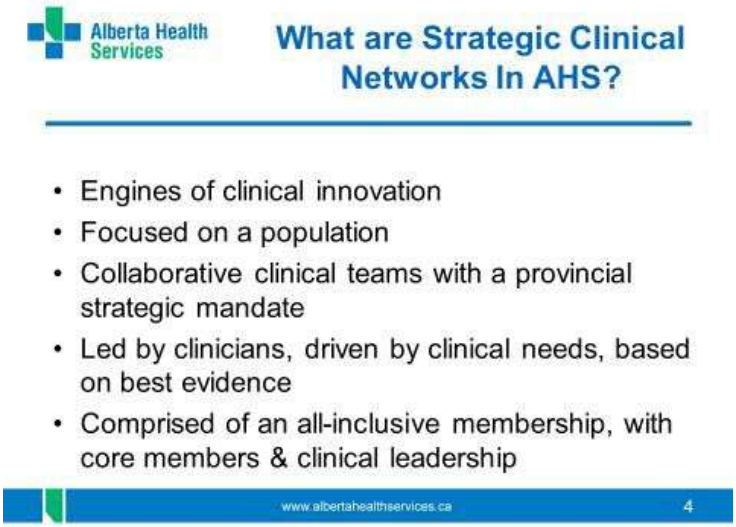
'Drug budgets come from a different bucket than acute are costs or chronic long term costs…. So we don't see the full costs spread over the system. We, as patient advocates, need to keep pushing that concept.'

Cardiovascular Health and Stroke Strategic Clinical Network

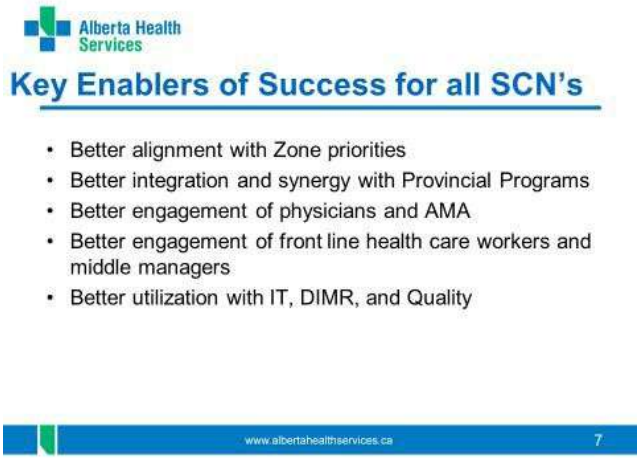
Dr. Blair O'Neill

This presentation provided an update on the Strategic Care Networks (SCN) particularly the Cardiovascular Health and Stroke SCN. Dr. O'Neill commented on the importance of the Primary Care Strategic Network which is due to be launched in 2015, as Primary Care is fundamental in binding patient care with all the specialty SCNs. He discussed the ideas behind the work of the SCNs and some of the projects which overlap with Primary Care.

'SCNs purpose is around trying to improve the system we all believe in. You, as Primary Care Doctors, are an important health care portal where most patients enter the system. It's also where patients return after acute care and where most chronic disease management really occurs.'



'As the SCN's core committee consists of primary care, front line health care providers from all the Zones, our priorities tend to be 'bottom-up'. They are ideas that have come from the front lines, and we are trying to take them back up within the organization.'



The Vascular Risk Reduction Project

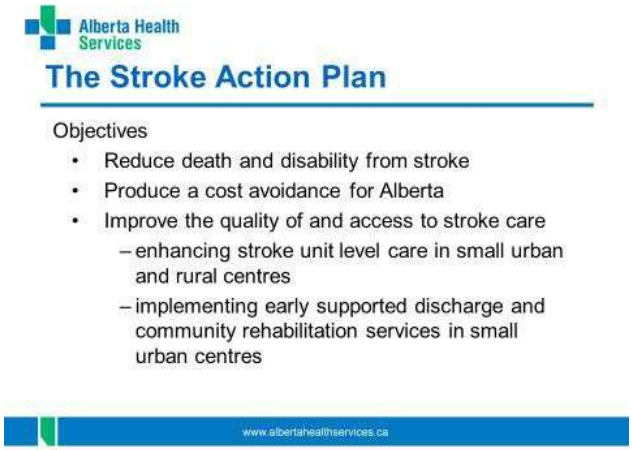
'We brought together cardiovascular and stroke and the commonality is prevention. We put together a program that would focus on working with existing entities in the province of Alberta to improve our screening and prevention at the primary care level, implementing our C-CHANGE screening maneuvers.'

'Vascular risk factors are universal to most if not all chronic diseases- cancer risk, orthopedic risk for joint replacement; obesity, which of course is the leading cause of diabete. Hence, all of these chronic diseases have a large potential for reversibility or even prevention, if you treat the risk factors early enough.'

The Stroke Action Plan

'We need to incorporate evidence-based best practice protocols into the everyday practice of what a Nurse, or Physician or Occupational Therapist is doing. No two patients are the same, so one has to be willing and able to vary care based on patient need and feed that data back in a learning loop to update the protocol. Stroke Action Plan brings best stroke care to small to medium sized primary stroke centers that cannot have a conventional "Stroke Unit."'

'Stroke Action plan brings practioners together in a "learning collaborative" to create Stroke Unit – Equivalent Care across rural Alberta'.

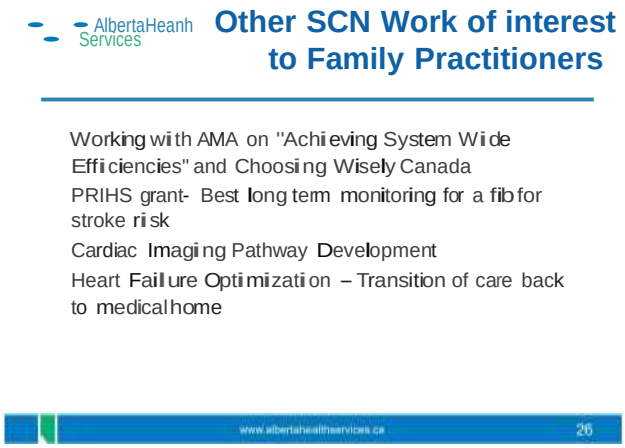


'As a Cardiovascular Specialist I learned how important those first 3 – 6 months are after a Stroke. It's when all the neuroplasticity is preserved and rehabilitation potential is maximal. After that time the deficit becomes fixed, and you're unlikely to improve any further.'

'It's the care that Stroke patients receive after they get in the hospital that makes up to a 5% difference in survival and makes a huge impact on the extent of disability.'

The Stroke Action Plan is a large project designed to see if we can improve the outcomes for patients presenting with Stroke outside of Edmonton and Calgary.'

'That transition of care – from acute care back to the community, where so often the ball is dropped is incredibly important. Stroke Action Plan with Early Supported Discharge is designed to improve both the inpatient care as well as ensure continued recovery into the community



Speaker Biographies

Dr. Ken Butcher BSc (Hon); PhD; MD; FRCP(C)
Neurologist, Division of Neurology, Dept of Medicine, University of Alberta, Canada

Ken Butcher is an Associate Professor in Neurology at the University of Alberta. His major clinical and research interests are in acute stroke care. He completed his PhD concurrently with his MD, at the University of Western Ontario. His thesis was based on the autonomic effects of stroke. Following his Neurology residency at the University of Alberta, Ken completed a postdoctoral Fellowship in MRI and advanced CT imaging of acute stroke in Australia. In 2006 he returned to Alberta, and took up his current faculty position. His active research projects include a randomized controlled trial of blood pressure reducti on in intracerebral hemorrhage and MRI studies aimed at extending the time window for stroke thrombolysis. Ken has personnel awards and grant-in-aid funding from the Alberta Heritage Innovates Health Solutions, Canadian Institutes of Health Research and Heart and Stroke Foundation of Canada. He holds a Canada Research Chair in Cerebrovascular Disease and the Heart and Stroke Foundation of Alberta, NWT and Nunavut Professorship in Stroke Medicine.

Dr Thomas Jeerakathil BSc, MD, MSc, FRCP(C), FABN (Neurology)
Associate Professor, University of Alberta

Dr Jeerakathil completed his medical school training in Saskatoon, Canada and his neurology residency at the University of Alberta in Edmonton. Receiving an American Academy of Neurology Clinical Training Fellowship allowed him to complete a clinical fellowship in Stroke Neurology at Boston University Medical Center and a research fellowship with the Framingham Heart Study. While there he completed a Master's degree in Epidemiology at Boston University School of Public Health and subsequently returned to the University of Alberta in Edmonton where he is now an associate professor of neurology, educational director of the stroke fellowship program and involved in teaching, research, and clinical work. He covers the inpatient stroke service at the University of Alberta Hospital and is one of the telestroke neurologists that provide acute stroke treatment support to the northern half of the province. Dr Jeerakathil also chaired the Evaluation and Quality Improvement Pillar of the Alberta Provincial Stroke Strategy and is involved in provincial and national quality improvement initiatives and projects for stroke. He currently the Northern Stroke Lead for the Cardiovascular and Stroke Clinical Network. He has an interest in health services, clinical, and population-based research.

Dr. Blair Joseph O'Neill, MD, FRCPC, FACC
Divisional Director, Division of Cardiology Professor of Medicine

Dr. Blair O'Neill is the former Division Director of Adult Cardiology for both Dalhousie University and for the University of Alberta and currently practises as an interventional cardiologist at the Mazankowski Alberta Heart Institute. He recently assumed the position of Senior Medical Director for the Cardiovascular Health and Stroke Strategic Clinical Network for Alberta Health Services.
The Strategic Clinical Networks are new AHS entities intended to help ensure a sustainable publicly funded health care system by using evidence to improve value for money. Other functions of the SCN's are to support population and public health initiatives, to develop best practices and clinical to support clinical pathways for dissemination and implementation, to develop and publish measures and performance across quality dimensions, to assess and reassess technologies and enable evidence development, to prioritize outcomes and interventions for improvement by AHS Zones and across the continuum of care, as well as to work with zones and communities in order to undertake a medium and long term view of needs and service development to drive quality and sustainability. Dr O'Neill's role is to engage clinical experts, users, patients and members of the public to design service models and implementation strategies to achieve goals as well as to work with the 5 AHS Zones to implement, evaluate and optimize innovative service delivery models. The SCN proactively develops and uses research to generate new knowledge and apply the knowledge translation skills within the Academic Health Network (AHN) to solve important clinical problems. Innovation is key to improving the health care system and hence is a critical success factor for the networks.Dr. O'Neill remains actively involved in clinical research in the area of cardiovascular health and prevention, health systems, health services and outcomes research and has been a principle investigator of many trials concerning the management of acute coronary syndromes, hyperlipidemia, endothelial dysfunction, and the use of new devices in interventional cardiology. He is a member of the Executive Steering Committee of "A Novel Approach to Cardiovascular Health by Optimizing Risk Management" (ANCHOR), an innovative approach to screening for patients at moderate to high risk of CV disease and reducing risk scores in primary care settings.
A member of several professional committees, Dr. O'Neill is active in his professional community. He has served as member of the Council of the Canadian Cardiovascular Society from 1996-2001 and President of Canadian Cardiovascular Society (2010-2012), as well as past chairman of its Access to Care Committee. For his work in setting targets and benchmarks for Access to Cardiac Care, Dr O'Neill was awarded the Heart and Stroke Foundation's 2006 Public Policy Award. He also chairs the Common CV Data Definitions and Quality Indicator Strategic Oversight Committee.

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Stroke Update 2014 is an example of IHE's expertise in knowledge transfer event programming and organisation. We develop and manage seminars, forums, workshops and conferences on a range of health related matters. For more information contact us at info@ihe.ca.

http://www.ihe.ca/research/knowledge-transfer-initiatives/