

Primary and Secondary Prevention of Vascular Disease in Primary Care

in Relation to Process and Clinical Care

The following questions and answers are from the March 6th Primary Care Stroke Update Panel Discussion.

Panelists included :

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Internist/Cardiologist, Assistant Prof. Depts. Medicine & Family Practice, Queen's University

A) Process Questions

Vascular Health Guidelines

1. Is there a recommended integrated vascular health guideline that I can incorporate into my practice?

Dr. Tobe answer:

- Recommends C-CHANGE the acronym for the Canadian Cardiovascular Harmonization of National Guidelines Endeavour (<http://c-changeprogram.ca/>).
- C-CHANGE containing prevention and treatment guidelines utilizing a consensus approach succeeded in condensing 469 recommendations pertaining to cardiovascular disease from many different guidelines to 89 recommendations into one integrated vascular health guideline.
- C-CHANGE plans to follow-up by updating guidelines in alignment with partnering organization such as CHEP.
- The C-CHANGE guidelines were endorsed and recommended for adoption across Canada by the Canadian Council of Federation of Health Innovation Working Group.
- Currently C-CHANGE is piloting web-based application tools to help with implementation into practice.

Dr. Curry Grant answer:

- Recommends the Canadian Cardiovascular Society (CCS) Guidelines that include a number of relevant guidelines that have recently been updated such as the CCS Dyslipidemia and Atrial Fibrillation 2012 updates.

Drs. Jin and Grant answers:

- Also recommend the Canadian Best Practice Recommendations for Stroke Care (www.strokebestpractices.ca) with a newly updated Stroke Prevention section with updates such as Antithrombotic Therapy for Atrial Fibrillation including an Anticoagulation Medication Profile table to help guide choice of therapy.

Vascular Risk Assessment

2. Is there a particular vascular disease risk assessment tool you would recommend?

Dr Grant answer:

- Risk assessment tools are useful to predict cardiovascular risk but should not supersede clinician's expert judgment.

All answers:

- Recommend the Framingham risk assessment tool for calculation of cardiovascular risk. Framingham can be downloaded or an on-line electronic calculator can be accessed . The Framingham Heart study also captures the assessment of risk for other vascular related diseases such as stroke.
- The Reynolds's Risk Score was also mentioned as being a suitable tool

Dr. Tobe answer:

The European SCORE tool is currently being evaluated as a simple risk assessment tool calculating risk score for cardiovascular disease.

3. What is the most important risk factor in relation to prevention that we should focus on given our limited resources... to get the most bang for your buck....e.g. sedentary life style, obesity, hypertension?

Dr. Tobe answer:

I am going to be highly controversial and I won't surprise you, I'm going to say measure blood pressure and you already know the patients age, age is a great predictor of risk. Given that the patient's blood pressure is a great screen for a whole bunch of other disease. An article that comes out in the May Canadian Journal of Cardiology about people who have hypertension, 90% of them have other risk factors and even though their BP may be controlled, generally there are other cardiovascular risk factors are not controlled, so screening for hypertension is a great way to identify other risk factors. Please be aggressive about controlling them, it's the best way to screen for patients who are at risk for chronic kidney disease. Typically they are going to get chronic kidney disease their BP will raise and patients with diabetes who have microalbuminuria their BP will go up and hypertension will identify patients with "micro and macro-vascular" risk and in all the clinical studies that are done, hypertension is extremely cost effective to manage and in fact, if you are looking at a patient with diabetes and hypertension, managing your BP is extremely cost beneficial.. One estimate was \$2,000/year/patient. You don't get better than that putting money back in the system...so there's my pitch for screening for hypertension AND...this year we got endorsement from the Canadian Task

Force for Preventative Health Care that have come out and supported the CHEP Recommendations, were in fact harmonized on screening recommendations for hypertension.

Quick example: As a nephrologist in the year 2000 we were very concerned in Canada because the number of new dialysis patients was rising at 10%/year and it was threatening to blow away all the budgets of all the hospitals. In Metro Toronto we were adding one dialysis unit every single year to accommodate the growth. Now we know in the last 13 years we have really achieved great BP control thanks to great health care practitioners like yourselves, and Canada is doing the best in the world at BP awareness treatment and control. Our rates are about 2/3 of our patients are treated and controlled which is better than anywhere else. We are seeing a reduction of heart attacks and strokes, also the number of new patients ending up on dialysis has shrunk to about 2-3%/year and we don't know that that analysis hasn't been done but I think it stands to reason that a lot of that is also due to a controlled BP, so we can actually see the results in real time.

Dr. Grant answer:

I certainly would agree with that and I would put smoking as a second or maybe equally as important with hypertension. Smoking of course causes various severe vascular diseases, particularly in young people. We find that most young people who have heart attacks are smokers and most people who have serious conditions like peripheral vascular disease are smokers, so we are aggressive with them and actually treating smoking as one of the most cost effective measures we can do as well.

Dr. Jin answer:

Hypertension without question is the #1 thing that needs to be controlled in primary care. No matter where you are in the world, whether you are in Asia or Africa or Canada the amount of stroke that you can attribute to just high BP is absolutely astonishing. I think in parts of Asia and Africa it's around 60% of stroke can be attributed solely to hypertension. You remove hypertension and you have the potential to remove about 60% of stroke in those regions. In Canada it's not that different, it's at least 40% and a lot of studies have suggested 50-60% as well. So that one risk factor alone, if that can be modified and controlled, we go a long way towards reducing not just stroke risk but all sorts of other cardiovascular risks as well. So that's where the money should be spent.

4. Is there any evidence supporting using the 'Urine for Microalbuminuria' test for screening patients for vascular disease risk?

Dr. Tobe answer:

- Urine for microalbuminuria test is not necessary with all patients with hypertension but is helpful to screen with patients with diabetes. There is not enough evidence to recommend routine microalbuminuria testing for patients with hypertension without diabetes or kidney disease. It is helpful to screen for specific reasons but it is not indicated to screen for everyone.

Dr. Jin answer:

- A microalbuminuria urine test can predict patients at increased risk for stroke and poorer outcomes with stroke.

5. How do you support behaviour change for those people with complex conditions who require frequent visits?

Dr. Tobe answer:

Behaviour changes are quite challenging and to get behaviour change in our patients you would have to spend a lot of time yourself or preference is to work in a team with an interprofessional group. How many of you are working in an interprofessional group? How many of you are not? A few...ok, so to get the behaviour changes it's really for patients to hear it from multiple sources. Your program hopefully should be theory-based like the theory of planned behaviour, that kind of thing is very helpful having the background as an approach to work with your patients or the Prochaska's Stages of Change kind of approach in getting your patients to move along as well as motivational interviewing. Most physicians, I'm one of them, really don't like doing motivational interviewing. It's long and hard but many nurses really enjoy doing motivational interviewing, so if you can convince someone in your group to take on the motivational interviewing that's a great way and then teach everyone else, it's a great way to help move patients along that continuum to behaviour change.

Question to the group:

Please don't be afraid to see your patients frequently. I think that's really important. The Saskatchewan database told us about the number of visits

Dr. Grant answer:

In our clinic we have a nurse who is very highly trained and she does our smoking cessation counseling and then we also have a dietitian so we do work as a team and try to change behaviour in that way. We are very limited by time of course and so it is very difficult. It requires ongoing visits in order to effect change, particularly with things like smoking where there is a high failure rate. We do our best.

Dr. Jin answer:

I will just be blunt, we don't do it really at all in the Kingston Stroke Prevention Clinic. In the Kingston Stroke Prevention Clinic it's very, very difficult to do this with the resources that we have. That's not an excuse but that is the way it is. It's exceptionally difficult to get people to change their behaviour and I think like most physicians, I'm probably as guilty of this as anybody. If there is a pill as opposed to sitting down for 45 minutes and talking with the patients about motivating them to exercise, you know, given how busy the clinic is and the time pressure I'd pretty much know what option I'm going to choose. That's really not going to cut it I think anymore, we are reaching...no I'm not going to say reaching the limit of what we can do with pharmacology but we are missing a big, big opportunity here and obesity is on the rise, there is no question about that. Diet is not exactly optimal in our community, especially in Southeast Ontario where we have a huge array of challenges facing us, so it is something that we have to work on. It's not clear exactly how to do, it's not clear what programs exactly are going to work. There are a number of successes out there though, so a lot of this is going to be just sort of teasing out which examples out there of successful programs can be applied with our setting and that's going to be ongoing work, probably in the next couple years.

B) Clinical Questions

Antiplatelet therapy

4. What are your suggestions regarding antiplatelet therapy in patients with multiple comorbidities e.g. both cardiac disease and stroke.

Dr. Jin answer:

- No specific recommendation of one antiplatelet over another:
 - o ASA, Aggrenox, Plavix
- Warfarin and ASA is a conundrum with- few indications for both and places patients at increased risk for hemorrhage
- ASA/dual platelet? No good answer
- Dual Antiplatelet therapy for symptomatic large intracranial artery disease may be considered but dual antiplatelet is not recommended greater than 3 months.
- Routine dual antiplatelet therapy is contraindicated for Lacunar stroke and is associated with greater risk for hemorrhage
- Still not enough evidence to support switching to another antiplatelet medication and if one is superior to another.
- Bottom line – For this patient population is all should be taking a single antiplatelet if possible
- Avoid combination of antiplatelet and anticoagulation

Dr. Grant answer:

- There are limitations or faults with stroke studies such as Caprie and CURE trials
- Recommend ASA 81 mg/day

5. Following Dr. Grant's presentation and recognizing patients spend less time in acute care what is your recommendation about the timing for initiation of anticoagulation in the community?

Dr. Grant answer:

- Most important to take patient's pulse and teach patient to take their pulse.
- Do an ECG and compare to a previous ECG if there is one.
- If patient is in atrial fibrillation–initiate antithrombotic therapy per criteria using the CHADS score and assessment for bleeding risk using the HASBLED tool.
- No delay in starting therapy
- Dabigatran still needs following
- However, do prescribe new anticoagulants if possible

Dr. Jin answer:

- There are benefits for increasing time in therapeutic range especially in certain regions where it was found that therapeutic INRs were low such as in India
- Time in therapeutic range is a good quality measure of anticoagulation management and varies greatly per regions around the world warfarin
- Use it if concerned re: therapeutic range
- We have returned to prescribing warfarin quite a bit instead of other new anticoagulant medications.

Dr. Grant

- RELY study– 14 major exclusions to new anticoagulants
- Need to be sure regarding indication of use.

Dr. Tobe

- Rarely use Dabigatran, but describes the scenario and asks a question when a patient arrives in the primary care office on a Friday PM, 4pm and ECG indicates Atrial fibrillation. If otherwise healthy start Dabigatran?

Dr. Jin

- Addresses same scenario of patient arriving on late Friday afternoon
- Could still start Warfarin on a Friday afternoon but need better follow-up and certainty of obtaining INR result on Monday
- Might start on Dabigatran – however also need to still check patient often for signs of bleeding.

Hypertension**6. How low can one go? What are the targets, do they vary per patient population? E.g. Diabetes, stroke, coronary artery disease, elderly.**

- Varies for different populations
- If on three medications for example and are able to lower the blood pressure just below 140/90- would stop there.
- If blood pressure is lowered to 110/70 and patient feels fine, would stop there.
- Diabetes <130/80 – lowest achieved BPs correlated with best health outcomes
- CAD, stroke – no strong evidence that need to go lower than 140/90

7. Question from the audience about what is the management recommended for isolated high systolic blood pressure in the elderly?

- For adults under 80 years old, aim to lower systolic blood pressure less than 140 and can lower systolic blood pressure slowly by 20mmHg for example if systolic over 160mmHg.
- For adults 80years old or older: Aim to bring blood pressure less than 150 mmHg Systolic.
- For patients with isolated elevated SBP can use diuretics and/or Calcium Channel blockers

If patients present with high systolic and low diastolic blood pressure not a good sign. This is a sign of “rigid pipes” and high risk for stroke/death. Aim to lower systolic blood pressure even by 10mmHg.