

Secondary Stroke Prevention Best Practices

Highlights to Pique Your Interest

August 2021



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Key to Stroke Prevention

- Appropriate and timely assessment
- **Aggressive** risk factor management



www.strokebestpractices.ca



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Secondary Prevention of Stroke

7th Edition Update 2020 is now available and published in pre-print in the Canadian Journal of Neurological Sciences.

<https://www.youtube.com/watch?v=QulKJZ7X1DU>



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Reminders-We all have role to play

- In all healthcare settings across continuum-screen, ID, assess, & document vascular risk factors, lifestyle management issues
- Provide individualized info and counselling about possible strategies to modify lifestyle & vascular risk factors
- At each encounter discuss & document **adherence** to prescribed secondary prevention tx plan(s) (pharmacotherapy & lifestyle changes), explore & address non-adherence, and provide counselling & engage in joint goal setting to encourage adherence



Risk Stratification & Virtual Care



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Risk Stratification

NEW

HIGH Risk- ≤ 48 Hours of symptom onset

- Anyone with new stroke/TIA symptoms
- Direct patients to ED
- Complete CT or MRI with neurovascular imaging (e.g., CTA) ASAP & before discharge from ED

ALL Others- ≥ 48 hours after symptom onset

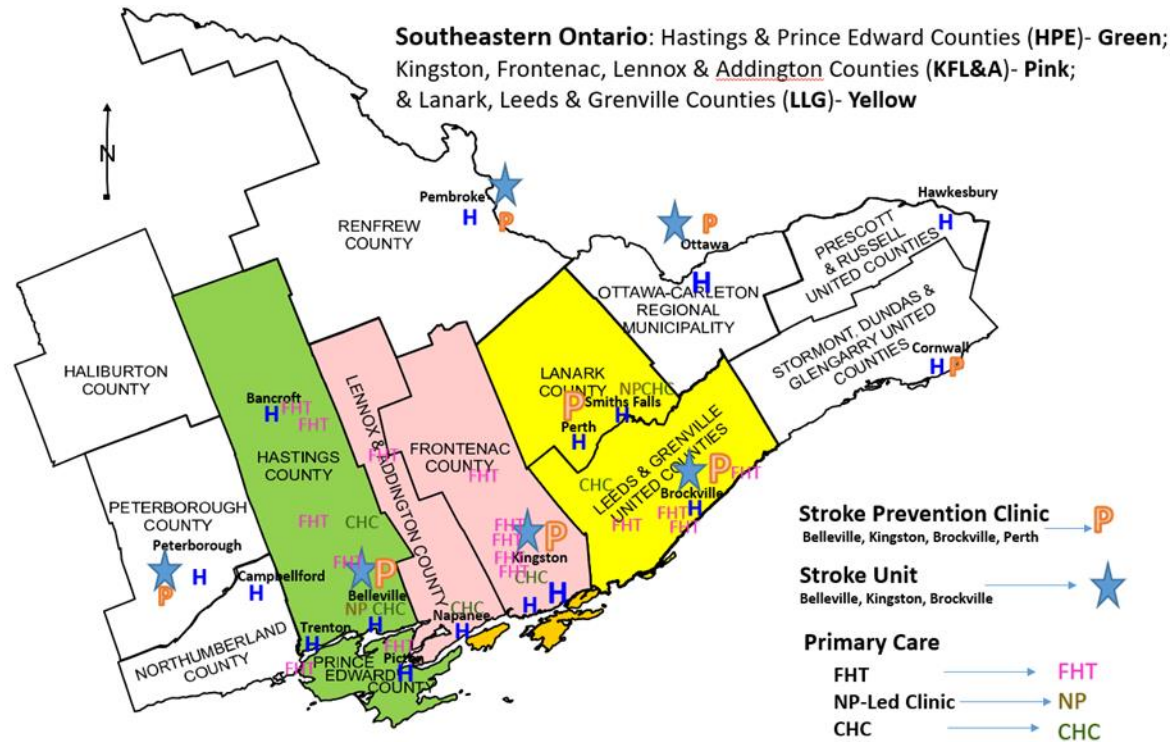
- Comprehensive clinical evaluation & investigations ASAP by stroke expert



Stroke Prevention Clinic

Goal of SPC is to reduce incidence of future strokes-

- Expediting assessment & treatment
- Providing quick access to consultation by stroke specialist & diagnostic testing
- Identifying risk factors for stroke
- Educating patients & family members about risk factor management



<https://www.strokenetworkseo.ca/about/stroke-prevention-clinics>

Virtual Care



- Have virtual care processes & technology to ↑ access to services for those not requiring in-person visits, especially rural & remote areas
 - Follow established/validated criteria to determine best modality for each patient based on purpose & goals for visit
 - Consider patient values, preferences, health goals, medical complexity, social determinants of health, & health needs
- Refer to [CSBPR Virtual Care Toolkit 2020](#) & *Heart & Stroke Virtual Care Decision Framework for additional guidance and criteria*

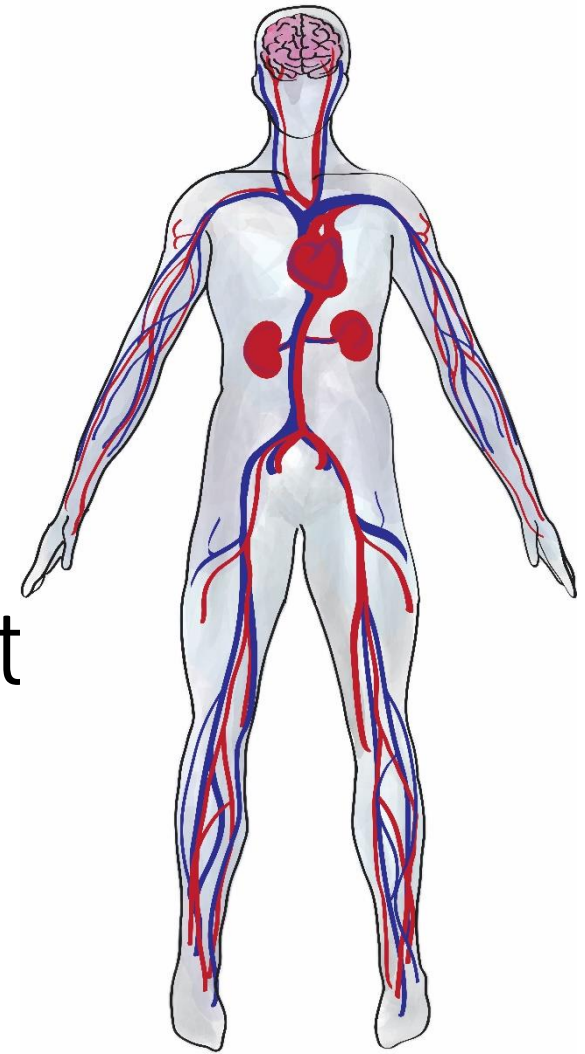


Virtual Care- Clinical Considerations

- Have **triage protocols** & local intake criteria to see patients in timely manner
- Include decision tools to ID patients for **in-person vs virtual visits**, & scheduling mechanism that support **collaborative team approach**
- Establish **contingency plan for timely in-person visit after virtual**, if needed
- Follow **validated approaches to virtual neuro exams**
- Ensure **processes for booking follow-up** tests, referrals & other consults
- Ensure **appropriate documentation & communication to team members**
- Encourage patient/family acquire **home BP monitor**; provide education or resources on proper use. Ensure follow-up & management of BP
- Consider **prolonged cardiac monitors sent to patient's home** then returned by mail
- Have **data collection & QI mechanisms**



Lifestyle & Vascular Risk Factor Management



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Healthy Balanced Diet



- Counsel & educate individuals with TIA or stroke to follow healthy eating pattern & balanced diet or refer to Dietitian
 - Refer to [Canada's Food Guide](#)
- Follow a Mediterranean-type or DASH diet
- **New** counselling suggestions:
 - High fibre choices such as whole grains, beans, and legumes instead of processed or refined grains such as white bread & pasta
 - Lower fat/sugar dairy products & unsweetened fortified soy beverages
 - Water as drink of choice for hydration
 - Sugary drinks (e.g., energy drinks, fruit drinks, juice, soft drinks, flavored coffees) add calories & have little to no nutritional value



Physical Activity



- Counsel/educate to reduce sedentary behaviors + time; work towards ↑ activity goals, as tolerated; participate in aerobic exercise 4 to 7 days per week, to accumulate at least 150 mins per week in episodes of 10 mins or more, in addition to routine activities of daily living

NEW

- Consider initiation of **aerobic training** post stroke or TIA once medically stable. To ensure continuity of appropriate interventions, reassess at transition points along continuum based on changing neuromotor & cardiopulmonary capacities to participate in aerobic training

Clinical consideration

- **Aerobic exercise intensity** should be individualized-consider functional limitation, co-existing medical problems, need for EST, & planned exercise intensity (i.e., light, moderate, or vigorous)
- Refer to [Stroke Engine Aerobic Exercise Info](#)



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Weight Management

- Counsel/educate to set healthy weight loss goals and develop individualized plans to achieve goals

NEW

- Use multi-pronged approach to support sustainable weight loss or gain that includes counselling & education, ↑ physical activity, & behavioural interventions

Clinical Consideration

- When discussing weight, consider completion of comprehensive hx that explores root causes of weight gain & avoids stigma/judgment
- Refer to 2020 [Canadian Adult Obesity Clinical Practice Guidelines](#)



Recreational Drug Use

NEW

- If taking **Cannabis** for medical indications, counsel regarding any potential increased risk of stroke to support informed decision-making

Clinical Consideration

- At present, some possible association of smoking cannabis with ↑ed stroke & CV events. However, there is lack of high-quality evidence to provide clear guidance. Consider individual patient factors
- Refer to 2020 [Canada's Lower-Risk Cannabis Use Guidelines](#)



Smoking Cessation

- Pharmacotherapy + behavioural therapy should be considered in all smoking cessation programs & interventions
- NRT, varenicline and bupropion are 3 pharmacological agents to be considered as first-line therapy

NEW

- Begin pharmacotherapy for smoking cessation ASAP (e.g., while in hospital)
- Valid to use stepwise approach that starts with reduction in smoking & progresses to full cessation
- Consider referral to virtual smoking cessation services, programs, supportive resources & clinics to optimize success of cessation



Smoking Cessation-Clinical Considerations

NEW-Use of E-Cigarettes

- While some individuals may find vape products helpful in smoking cessation, evidence re population-based effectiveness is not clear
- Some evidence shows people who vape to quit cigarettes may continue to vape
- Emerging evidence indicates association between vaping & \uparrow BP; strength in that association is not currently clear
- Most common in Canada is using both vape + combustible tobacco; include smoking cessation strategies for both
- Educate + counsel regarding risks vs benefits of e-cigarettes with stroke, including young stroke



Oral Contraceptives, HRT

NEW

- Discuss pregnancy & implications for stroke recurrence as routine part of post-stroke management for all female stroke survivors of reproductive age
- Address contraception based on patients' fertility & pregnancy plans & stroke mechanism & type
- Alternatives, including progesterone-only oral contraceptives, progesterone-only or non-hormonal intrauterine devices, or barrier contraception can be considered in consult with experienced provider in contraceptive methods
- Consider alternatives to estrogen containing hormonal contraceptives for women with hx of migraine with aura especially if also current tobacco smokers
- In ischemic stroke, estrogen-containing contraceptives or HRT that can ↑ risk of thrombosis should be carefully considered; in most avoided



Emerging Risk Factors














Influenza infection, vaccination, and stroke risk

- Influenza vaccination is recommended
 - Associated with ↓ risk of stroke or CV events, particularly in patients with CV risk factors

Air pollution and stroke risk

- Counsel individuals regarding long-term exposure to air pollutants, particularly avoiding or minimizing exposure to particulate matter ≤ 2.5 μm in diameter, which may be associated with ↑ risk of stroke & CV disease



MY STROKE RISK FACTORS																		
RISK FACTORS	CURRENT	TARGET	THINGS I CAN CHANGE															
	Today's blood pressure:	<table border="1"> <tr> <td colspan="3">Systolic (mm Hg)</td> </tr> <tr> <td colspan="3">Diastolic (mm Hg)</td> </tr> <tr> <td>Below 140</td> <td>Below 130</td> <td>Below 135</td> </tr> <tr> <td>Below 90</td> <td>Below 80</td> <td>Below 85</td> </tr> <tr> <td>CLINIC</td> <td>DIABETES</td> <td>AT HOME</td> </tr> </table>	Systolic (mm Hg)			Diastolic (mm Hg)			Below 140	Below 130	Below 135	Below 90	Below 80	Below 85	CLINIC	DIABETES	AT HOME	
Systolic (mm Hg)																		
Diastolic (mm Hg)																		
Below 140	Below 130	Below 135																
Below 90	Below 80	Below 85																
CLINIC	DIABETES	AT HOME																
	Cholesterol: LDL: Triglycerides: Non HDL-C: HDL:	Total: <5.2 LDL: < Triglycerides: <1.7 Non HDL-C: <2.6 HDL: >1.0 [men] >1.3 [women]																
	HbA1C: Fasting blood sugar:	For most people: HbA1C: 7% or less Fasting blood sugar: 4-7mmol/L																
	<input type="checkbox"/> Smoking <input type="checkbox"/> Cutting back <input type="checkbox"/> Non-smoker	Smoke and tobacco free																
	Waist circumference:	Men: <102 cm (40") Women: <88 cm (35")																
	Meals/day: Fruits & veggies/day:	3 meals per day 7 servings of fruits & vegetables/day																
	Exercise: Minutes/day: Days/week:	150 minutes moderate to vigorous activity per week in periods of 10 minutes or more																
	Drinks/week:	Women: <10 drinks a week to a maximum of 2 per day. Men: <15 drinks a week to a maximum of 3 per day. In some cases NO alcohol.																
	Sleep ____ hours/night Sleep apnea: Yes or No	Sleep 6 to 8 hours/night																
	<input type="checkbox"/> Feeling stress <input type="checkbox"/> Feeling depressed	Reduce activities that cause stress																
	Atrial fibrillation: <input type="checkbox"/> Yes <input type="checkbox"/> No	Medication prescribed:																

[Stroke Prevention Patient Summary](#)

Hypertension, Diabetes & Dyslipidemia



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Blood Pressure Management



- Assess /manage BP in everyone with stroke or TIA
- Target BP < 140/90 mm Hg for ischemic stroke or TIA
- Target SBP < 130 mmHg for **small subcortical stroke** (i.e., lacunar stroke)

NEW

- With **ICH**, aggressively monitor, treat, & control BP <130/80 mmHg
- Tx with **ACE inhibitor + thiazide/thiazide-like diuretic** is recommended. Long-acting diuretic may be considered over short-acting. Use of ACE + ARB not recommended

Clinical Consideration

- Patients with non-revascularized critical intra or extracranial arterial stenosis experiencing neuro symptoms attributed to hemodynamic (low flow) cerebral or retinal ischemia (e.g., orthostatic TIAs), it's reasonable to aim for higher than usual BP target for prevention of hemodynamic stroke. If asymptomatic, follow usual BP target in post-acute stroke
- Refer to [Hypertension Canada Guidelines](#)



Lipid Management

- Initiate aggressive lifestyle changes to lower lipid levels (including dietary modification and exercise)
 - Statin pharmacotherapy Rx -- **non-cardioembolic** ischemic stroke or TIA for target **LDL level <1.8mmol/L**
 - **Add-on therapies for LDL-Lowering:**
 - Ischemic stroke + atherosclerotic CV disease with LDL > 1.8 mmol/L despite maximal statin therapy, **ezetimibe** may be considered
 - If LDL level is not achievable, consider referral to metabolic, lipid management or stroke expert to consider **adding PCSK9 inhibitor**
- Add-on therapy for hypertriglyceridemia (≥ 1.5 mmol/L)**
- Ischemic stroke with established atherosclerotic CV disease or diabetes + additional vascular risk factors, who have elevated Tg levels despite statin, icosapent ethyl 2 g bid may be considered to ↓ risk of vascular events

STATIN Intolerance

- Confirm indication for statin; systematic evaluation of contribution of statins to patient's symptoms (including temporary statin cessation with observation of symptoms, dose-adjustment, use of alternate agents)
- *Refer to the current [CCS Dyslipidemia Guidelines](#)*



Diabetes Management

- In patients with stroke + type 2 diabetes in whom glycemic targets are not achieved with standard oral antihyperglycemic medications, consider antihyperglycemic agent with demonstrated benefit on CV major outcomes (e.g., SGLT-2 inhibitors or GLP-1 receptor agonists)

Clinical Consideration:

- *Pioglitazone after Ischemic Stroke or TIA* trial suggested that while there is benefit of pioglitazone for stroke prevention in patients with positive insulin resistance, it is offset by increased risk of fractures and bladder cancer. A post-hoc analysis of patients with prediabetes and good drug adherence suggested benefit of pioglitazone over placebo with regards to stroke, ACS, hospitalization for heart failure, and progression to diabetes. Decision to use this drug could be considered based on patient specific risk profile
- Refer to the current [Diabetes Canada Clinical Practice Guidelines](#) for additional info



Antiplatelet Therapy & Anticoagulation



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Antiplatelet Therapy- (single/ double/+DOAC?)

ACUTE ANTIPLATELET THERAPY (in ED)

- If acute ischemic stroke/ TIA, start at least 160 ASA as loading start after imaging has excluded ICH
- This should be done within 24 hrs of symptom onset (ideally within 12 hrs)

WHO GETS DUAL ANTIPLATELET THERAPY?

1) Minor Stroke/ TIA

- Anyone with symptoms of **minor stroke (NIHSS 0-3)/TIA**, not a major risk of bleeding:
 - A **single loading dose of clopidogrel (300 mg or 600mg) + ASA 160mg** followed by **ASA 81mg + Clopidogrel 75mg x 21d** followed by monotherapy after
- Longer duration DAPT (beyond 21days) **is not recommended** and should only be reserved for specific indications (arterial stent or intracranial atherosclerosis)
- Patients should be counseled that ASA + clopidogrel should continue for only 21 days, followed by monotherapy
- Another reasonable short-term dual antiplatelet treatment option is low-dose ASA + **ticagrelor** (180 mg loading dose, followed by 90 mg bid) x 30 days



Antiplatelet Therapy

2) Stroke/TIA secondary to Intracranial atherosclerotic disease (ICAD)

- If symptomatic **intracranial** atherosclerotic stenosis of 70-99%, and low estimated bleeding risk, the **SAMMPRIS protocol** should be considered → DAPT x 3mths, followed by monotherapy + high-dose statin, BP treatment, and structured lifestyle modification

Antiplatelet + Low dose rivaroxaban

- For carefully selected patients with CAD or PAD meeting **COMPASS trial criteria**, + low bleeding risk + no hx of lacunar stroke or hemorrhagic stroke, rivaroxaban 2.5 mg BID + low-dose ASA is reasonable. This should not be used within first month after stroke



Cardiac Assessment

- If > 65 yo with ischemic stroke or TIA
 - Palpate pulse, auscultate heart sounds or do ECG rhythm strip to screen for undiagnosed atrial fibrillation
- If < 60 yo being investigated for embolic ischemic stroke or TIA of undetermined source, echo with saline bubble study is recommended to detect PFO if it may change management (i.e., potential candidate for PFO closure or anticoagulant therapy if PFO was detected)



Anticoagulation Therapy- no AF

- For patients with an embolic stroke of undetermined source, and no known atrial fibrillation, **anticoagulant therapy is not currently recommended over low-dose acetylsalicylic acid** for secondary stroke prevention [Evidence Level A]. Additional trials are ongoing to investigate this issue



Anticoagulation for Atrial Fibrillation



Timing of Initiation of AC following Stroke

- Optimal timing to start anticoagulant therapy after an ischemic stroke has not yet been well defined by clinical trial evidence, current practice is based on expert consensus
- Brief TIA and no visible infarct or hemorrhage on imaging → within the first 24 hours
- Minor clinical stroke/small non-hemorrhagic infarct on imaging, → 3 days days post-stroke
- Moderate clinical stroke/moderate-sized infarct on imaging (without hemorrhage on CT), → 6-7 days post-stroke
- For patients with a severe clinical stroke/large-sized infarct on imaging (without hemorrhage on CT), → 12-14 days post-stroke



Anticoagulation for Atrial Fibrillation



Stroke while on DOAC Therapy

- For patients with afib who experience ischemic stroke or TIA in spite of anticoagulant therapy:
 - ID & address medication nonadherence
 - ensure correct DOAC dosing or warfarin INR control
 - avoid DOAC drug-drug interactions
 - investigate and treat other potential stroke etiology
 - promote general vascular risk factor modification
- Continue current DOAC or switch to different anticoagulant are both reasonable. Currently, evidence is lacking to make specific recommendations
- Routine addition of ASA to anticoagulant is not recommended because of ↑ bleeding risk without clear evidence of benefit unless medical indication



Anticoagulation Effectiveness for Atrial Fibrillation- KEY

- **Medication adherence should be continually assessed and reinforced for patients on all oral anticoagulants at each follow-up visit**



Anticoagulation Effectiveness for Atrial Fibrillation- KEY

- For patients prescribed DOAC, **avoid inappropriate under-dosing** as associated with ↑ stroke risk
- For patients with **afib and chronic stable CAD (+ >1-year post-PCI or CABG), addition of antiplatelet to DOAC therapy is not recommended** as ↑ bleeding risk without providing any significant benefit in reducing ischemic events (cardiac or cerebral)
- *Refer to current [CCS](#) guidelines for patients with recent coronary ischemic events*
- *See CSBPR Appendix Four for Selection of Anticoagulant Agents for Management of Atrial Fibrillation after stroke or TIA*



Perioperative Recommendations if on OAC



STEP 1: First risk stratify bleeding risk during the surgery

- **HIGH RISK:** major abdominal surgery (e.g., cancer resection), major thoracic surgery, major orthopedic surgery, and any cardiac, spinal, or intracranial surgery. Any patient having neuraxial anesthesia is classified as high-bleed-risk because of the risk for spinal epidural hematomas which could cause limb paralysis
- **LOW/ MODERATE RISK:** most surgeries that are < 1h and there is no neuraxial anesthesia
- **MINIMAL RISK:** tooth extractions, root canal, skin biopsies, cataract surgery, and selected colonoscopies, for which anticoagulants can be continued without interruption. Permanent pacemaker and internal cardiac defibrillator implantation, as well as cardiac catheterization

STEP 2: Look at recommendations for DOAC interruption

- **Minimal risk:** no interruption
- **Low to moderate-bleed-risk** surgery or procedure (major abdominal/ thoracic/ orthopedic OR any cardiac, spinal or intracranial)
 - stop DOAC day before procedure + day of procedure (i.e., skip 2 days total), & restart day after procedure
- **High-bleed-risk** surgery or procedure, stop DOAC 2 days before procedure, day of procedure, and one day after procedure (i.e., skip 4 days total)
- *Note: exception of patients on dabigatran with impaired renal function (CrCl <50 mL/min) in whom an additional 1-2 days of interruption is suggested before surgery or procedure*
- *Refer to Clinical Considerations for additional information*



Perioperative Recommendations if on OAC

- Patients with afib receiving **warfarin** for stroke prevention who require temporary warfarin interruption for elective surgery or procedure:
 - **Low to moderate stroke risk** (e.g., CHADS2 score 0-4), stop warfarin x 5 days pre-procedure, & resume within 24 hours post-procedure, without heparin bridging
 - **High stroke risk** (e.g., CHADS2 score 5-6 or prior perioperative stroke), heparin bridging is suggested during warfarin interruption, typically with twice-daily LMWH x 3 days before & 3 days after
- Patients with **mechanical heart valve** stopping warfarin 5 days pre-procedure is recommended & resume within 24 hours post-procedure
- Heparin bridging is recommended for select patients with mitral valve bio-prosthesis and for high-risk patients with aortic valve bio--prosthesis (e.g., with additional risk factors for stroke)
- If bridging pre-op, forego post-op bridging in select patients, especially those undergoing high-bleed-risk procedures



Perioperative Recommendations if on Antiplatelet

- For patients receiving **ASA** for stroke prevention who require elective or urgent (within 7 days) CEA or CABG, continue ASA without interruption
- For patients receiving **dual antiplatelet therapy** with ASA + P2Y12 inhibitor (e.g., clopidogrel, ticagrelor) for secondary stroke prevention who require urgent CEA (within 7 days), continue ASA + P2Y12 inhibitor perioperatively
- For patients undergoing other types of surgery, continuing **ASA** could be considered before low/moderate-bleed-risk surgery or procedure. Interrupting ASA before high-bleed-risk surgery or procedure could be considered for 7-10 days
- *Refer to Table 8 suggested management for antiplatelet therapy for elective surgery*
- *Refer to Thrombosis Canada clinical guide for peri-operative management of patients on oral anticoagulant therapy at <https://thrombosiscanada.ca/clinicalguides>*



Extracranial Carotid Disease & Intracranial Atherosclerosis



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Symptomatic Carotid Stenosis

- If revascularization is being considered for carotid stenosis based only on carotid ultrasound, then CTA or contrast enhanced MRA is recommended to confirm the degree of stenosis and guide surgical decision-making, as well as to assess for tandem disease
- Carotid endarterectomy is generally more appropriate than CAS for patients over age 70 years who are otherwise fit for surgery as current evidence indicates stenting carries a higher periprocedural risk of stroke and death in older patients. [Evidence Level A]
- Carotid stenting may be considered for patients who are not operative candidates for technical, anatomic, or medical reasons. [Evidence Level A]



Asymptomatic / Remotely Symptomatic Carotid Stenosis

- CEA may be considered for some highly selected individuals (60-99%)
- Benefit of carotid endarterectomy for women with 60-99% asymptomatic carotid artery stenosis is not clear and should only be considered in highly selected patients [Evidence Level B] in consultation with a health professional with stroke expertise
- Otherwise, can consider for patients with **life expectancy greater than 5 years** and in a **centre with acceptable risk of surgical complications** (<3% risk of periprocedural morbidity/ mortality)

Clinical Considerations:

- Although impact on clinical decision-making regarding revascularization of asymptomatic patients is uncertain, several factors may confer higher risk of stroke in patients with asymptomatic stenosis, including:
 - Progression of stenosis over time
 - Ipsilateral covert brain infarcts on imaging
 - Ipsilateral intracranial embolization on transcranial doppler
 - Plaque morphology on non-invasive imaging (ex. volume, echolucency, intraplaque hemorrhage)



Symptomatic Vertebral Artery Stenosis

- For patients with symptomatic vertebral artery stenosis (extracranial or intracranial), medical therapy is recommended over stenting for secondary stroke prevention



Cervicocephalic Artery Dissection

- There is uncertainty about efficacy of antiplatelet therapy vs. anticoagulation with heparin or warfarin; either treatment is considered reasonable; base decision on individual risk/benefit analysis considering imaging features of dissection (presence and degree of stenosis, intraluminal thrombus, vessel occlusion, pseudoaneurysm), brain imaging, patient characteristics, & bleeding risk



Other Cardiac Issues & Cancer Associated Ischemic Stroke



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Patent Foramen Ovale (PFO)

Patients with a recent ischemic stroke suspected to be related to a PFO should have an evaluation by healthcare professionals with stroke and cardiovascular expertise

Common Issues:

- For patients requiring long-term anticoagulation for other reasons, the benefit of PFO closure is uncertain, and treatment decisions should be based on individual patient characteristics & risk versus benefit profile. [Evidence Level C]
- For patients with a recent ischemic stroke attributed to a PFO who do not undergo PFO closure and are aged 60 years or younger, either antiplatelet or anticoagulant therapy is recommended for secondary stroke prevention, unless there is a separate evidence-based indication for chronic anticoagulant therapy. [Evidence Level B]



Heart Failure, Decreased Left Ventricular Ejection Fraction, Cardiac Thrombus

- For patients with stroke/ TIA who are in sinus rhythm and have a **LA/ LV thrombus** demonstrated by echocardiography or other imaging modality, **anticoagulant therapy is recommended for greater than 3 months**
- For patients with stroke /TIA who are in sinus rhythm and have severe left ventricular dysfunction (**ejection fraction $\leq 35\%$) without evidence of left atrial or left ventricular thrombus, the net benefit of anticoagulant therapy compared with antiplatelet therapy is uncertain, and the choice of management strategies should be individualized**



Cancer Associated Ischemic Stroke



- Patients with active malignancy + ischemic stroke or TIA should undergo standard etiological work-up for stroke, including vascular imaging & cardiac rhythm monitoring
- Consider stroke mechanisms associated with malignancy when determining etiological investigations, including non-bacterial (marantic) endocarditis, hypercoagulability, paradoxical embolism due to venous thrombosis, tumor-related vascular compression, & stroke related to anti-cancer treatments
- With active malignancy + ischemic stroke or TIA in whom a cancer-associated hypercoagulable state may have contributed, consider anticoagulation over antiplatelet. When anticoagulation is used, LMWH is preferred. Role of DOAC is unknown but under study -- may be reasonable after consideration of patient preference

Clinical Consideration

- With active malignancy + ischemic stroke or TIA with concurrent VTE in whom stroke is presumed due to paradoxical embolus, follow guidelines for management of DVT and PE in cancer patients which includes LMWH and selected DOACs
- Refer to www.thrombosiscanada.ca



Learn more

Prevention & Vascular Health

- ▶ General
- ▶ Atrial Fibrillation
- ▶ Blood Pressure
- ▶ Depression
- ▶ Healthy Living
- ▶ Indigenous Health
- ▶ Vascular Health Resources



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Save the Date!

- Primary Care + Stroke Prevention Clinic CME event taking place virtually on **February 16th, 2022**
- If you'd like to participate in planning this event, Contact Heather Jenkins-
Heather.Jenkins@kingstonhsc.ca
- Survey helping us plan this event is coming your way soon
- See [summary](#) of previous 2 events with links to resources



Highlights of Changes

- Triage
- Diagnostic workup (imaging, echo for PFO detection, pulse palpation for opportunistic atrial fibrillation screening, & thrombophilia testing)
- Virtual Care
- Influenza vaccination
- Cautions related to air pollution
- Permissive hypertension related to critical stenosis of extra or intra cranial artery
- PCSK9 inhibitor therapy for lipid management
- Duration of dual antiplatelets post TIA or minor stroke
- Atrial Fibrillation management
- Embolic strokes of undetermined source (ESUS trials)
- THALES trial
- Perioperative management of anticoagulant and antiplatelet therapy
- Vertebral artery stenting
- Cervicocephalic artery dissection
- Management of PFO
- Cancer-associated stroke



Questions & Discussion

www.strokenetworkseo.ca

For further information: See our website or
contact

[Stroke Prevention Clinics in SEO](#)

Or

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