**Supplement 1: Relevant Survey Questions and Interview Guide**

1. **Case and Relevant Questions from *Practice Current* Survey**

A 65-year-old patient presents with acute-onset of right-sided weakness lasting several hours and is found to have 80% left-sided extracranial internal carotid artery stenosis. After appropriate hyper-acute management, a plan is made for revascularization (endarterectomy or stenting) within the next week. A statin is started.

**1) Based on just this information, what anti-thrombotic agents will you typically favor in this patient while awaiting carotid revascularization (endarterectomy/stenting)? *Please select all options you would order as part of this patient’s anti-thrombotic regimen.***

[ ] None  
[ ] Low-dose Aspirin (75 to 81mg)  
[ ] High-dose Aspirin (160 to 325mg)  
[ ] Cilastazol  
[ ] Clopidogrel  
[ ] Direct-acting oral anticoagulant (DOAC)  
[ ] Heparin  
[ ] Low molecular weight heparin  
[ ] Ticagrelor  
[ ] Other - Write In:

**2) If there is evidence of an intravascular thrombus at the area of carotid stenosis in this patient, what anti-thrombotic agents will you typically favor in this patient while awaiting CEA/CAS? *Please select all options you would order as part of this patient’s anti-thrombotic regimen.***

[ ] None  
[ ] Low-dose Aspirin (75 to 81mg)  
[ ] High-dose Aspirin (160 to 325mg)  
[ ] Cilastazol  
[ ] Clopidogrel  
[ ] Direct-acting oral anticoagulant (DOAC)  
[ ] Heparin  
[ ] Low molecular weight heparin  
[ ] Ticagrelor  
[ ] Other - Write In:

Demographic Questions

**1) In what country is your practice located?** (Respondent selects from list of all countries)

**2) How many years have you been in practice?**   
[ ] In training  
[ ] Less than 10 year  
[ ] More than 10 years

\*Complete survey used previously published in Ganesh A, Bartolini L, Singh RJ, Al-Sultan AS, Campbell DJ, Wong JH, Menon BK. Equipoise in management of patients with acute symptomatic carotid stenosis (hot carotid). Neurology: Clinical Practice. 2021 Feb 1;11(1):25-32.

1. **Hot Carotid Interview Guide**

**Interview Guide for In-Depth Interview with Physicians**

**This guide is not an exhaustive list of questions. Be flexible in the interview process and adapt your questions to suit the topics and concerns raised by the participants.**

**DNO: ||\_||\_|\_|\_|\_|\_|\_|\_||\_|\_|**

**Date of interview: \_\_\_/\_\_\_/\_\_\_ Location: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Interviewer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Duration of Interview: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**DEMOGRAPHIC INFORMATION**

|  |  |  |  |
| --- | --- | --- | --- |
| **Respondent**  **ID** | **Sex** | **Speciality** | **Country/Region** |
|  |  |  |  |

* **Primary Work Setting (Academic, Community, etc):**
* **Years of practice:**
* **How many strokes or TIA have you encountered in the last 12 months?**
* **How many patients with acutely symptomatic carotid stenosis have you encountered in the last 12 months?**

Thank you for agreeing to participate in our interview today. We wish to discuss your experience in managing patients with acutely symptomatic carotid stenosis (>50%), in the pre/peri-operative period as they await revascularization with endarterectomy/stenting. As part of this interview, we will also ask you some questions about your management of patients with symptomatic carotid stenosis <50% and some non-stenotic pathologies, as well as intraluminal thrombi.

We are seeking to better understand how physicians approach the risks versus benefits of various anti-thrombotic options in these patients, and how they envision the field evolving in the near future.

Please note that this conversation will be audio-recorded.

**1. EXPERIENCE MANAGING ACUTELY SYMPTOMATIC CAROTID STENOSIS**

**1.A Overview of typical management**

Please describe your role in stroke/TIA management at your centre, and your typical role in the management of patients with acutely symptomatic carotid stenosis.

What’s your preferred imaging modality?

Please describe your current approach to managing patients with acutely symptomatic carotid stenosis.

* What carotid revascularization procedure is typically preferred at your centre?
* How long does the patient typically wait in your centre before getting carotid endarterectomy? Carotid artery stenting?
* What anti-thrombotic agents will you typically favour in patients who are awaiting carotid revascularization (endarterectomy/stenting)?
* Who decides (or has a say in deciding) the anti-thrombotic regimen for patients in the peri-operative period at your centre?
* Have you practiced in any other Centres or Countries other than the one where you are presently working?
  + How was the prevailing practice or philosophy similar or different in those centres?
* Can you tell us a bit about how your patients seem to think regarding the management of their carotid pathology? Has that differed in different centres where you have practised?
  + Have you noticed any differences in prevailing patient philosophies based on different demographics?
* Are there any challenges or uncertainties that you face in this process?

**1.B Factors influencing management decisions**

What are the factors that you take into account when choosing an anti-thrombotic regimen for these patients?

* If the patient is already on an anti-platelet agent (e.g. ASA), will this change your approach? If so, how?
* Does the type of procedure being performed make a difference? i.e. Is there one regimen you favour in endarterectomy versus another in carotid stenting?
* Are there any specific clinical features that would increase/decrease your enthusiasm for additional agents beyond single anti-platelet and statin therapy in these patients?

If prompts required:

* + Demographics, Risk factors, Co-morbidities
  + Type of event (stroke/TIA)
  + Severity of event, Number of events
  + Days awaiting procedure
  + Type of procedure anticipated
  + Availability of surgeon/interventionist
  + Swallowing
* Are there any specific imaging features that would increase/decrease your enthusiasm for additional agents beyond single anti-platelet and statin therapy in these patients?

If prompts required:

* + Degree of stenosis
  + Nature of plaque (smooth versus ulcerated, irregular, etc)
  + Microembolic signals
  + Tandem disease, intracranial disease
  + Uncertain mechanism
  + Microbleeds
  + Number of strokes on imaging
  + Size of stroke on imaging
  + Evidence of haemorrhagic transformation on imaging etc.

**1.C. Nested discussion about <50% stenosis and other non-stenotic pathologies**

In your practice, how do you manage patients with acutely symptomatic carotid stenosis with **degree of stenosis <50%?**

Are there any challenges or uncertainties that you face in this process?

What are the factors that you take into account when choosing an anti-thrombotic regimen for these patients with <50% carotid stenosis?

* If the patient is already on an anti-platelet agent (e.g. ASA), will this change your approach? If so, how?
* Do you perform revascularisation procedures on some of these patients?
  + What factors drive this decision?
  + Is there one anti-thrombotic regimen you favour in endarterectomy versus another in carotid stenting?
* Are there any specific clinical features that would increase/decrease your enthusiasm for additional agents beyond single anti-platelet and statin therapy in these patients?
* Are there any specific imaging features that would increase/decrease your enthusiasm for additional agents beyond single anti-platelet and statin therapy in these patients?
* How about patients with acutely symptomatic dissections?
  + Do you perform revascularisation procedures on some of these patients?
    - What factors drive this decision?
  + Is there one anti-thrombotic regimen you favour in endarterectomy versus another in carotid stenting?
    - What factors drive this decision or choice?
* How about patients with carotid webs?
  + Do you perform revascularisation procedures on some of these patients?
    - What factors drive this decision?
  + Is there one anti-thrombotic regimen you favour in endarterectomy versus another in carotid stenting?
    - What factors drive this decision or choice?

**1.D. Nested discussion about intraluminal thrombus**

In your practice, how do you manage patients with **intraluminal thrombi (ILT) on imaging**?

Are there any challenges or uncertainties that you face in this process?

What are the factors that you take into account when choosing an anti-thrombotic regimen for these patients with ILT? (Consider the prompts below if needed)

* Does the location of the ILT influence your decision? If so, how?
* Does whether/not the ILT is in a symptomatic vessel influence your decision? If so, how?
* In a patient being considered for carotid revascularization, does evidence of an ILT in the area of carotid stenosis change your approach to peri-procedural anti-thrombotic management? If so, how?
* Is Carotid revascularization deferred at your centre if the patient has an intravascular thrombus near the carotid stenosis on imaging?
  + If so, for how long, and how are the patients managed in the interim?
* If the patient is initially managed on medical therapy and has persistent thrombus, will the revascularisation be performed?
  + If yes, do you have any preference for the timing and type of procedure (CEA vs CAS)?

**2. PERCEPTIONS AND OPINIONS OF CURRENT EVIDENCE**

What are your thoughts on the current state of evidence about anti-thrombotic management in patients with acutely symptomatic carotid stenosis? Specifically those awaiting CAS/CEA?

Do you consider your approach to be well justified by current evidence? Or do you see yourself as operating outside or beyond the current evidence?

What specific gaps, if any, do you find in the current evidence? What uncertainties remain?

**3. VISION/ATTITUDES TOWARDS FUTURE RESEARCH**

Do you envision the peri-procedural management of these patients changing in the near future? How?

What new research/trials do you think would change your current practice? Are there any such trials currently under way?

What are your thoughts about further trials of different anti-thrombotic regimens in patients with acutely symptomatic carotid stenosis?

If could compare benefits/risks of any regimens for this indication, what would they be?

What would you consider to be the most important outcome measures to demonstrate the superiority of one approach over another for this indication?

* Are there any imaging endpoints that you would view as acceptable surrogates?

What factors encourage/discourage you from participating in such trials?

* What are some appealing aspects of pursuing a randomized controlled trial in this population?
* What do you envision as core challenges in pursuing a trial in this population?

Do you have any additional comments or suggestions fror optimizing the peri-operative anti-thrombotic management for patients with symptomatic carotid stenosis?

Thank you for participating in today’s interview. Using the information you provided, we will work on developing a potential clinical trial to optimize the peri-operative anti-thrombotic management of patients with acutely symptomatic carotid stenosis.