

Module 2: Early Treatment

This module identifies best practices for the ED treatment of TIA or minor (nondisabling) stroke. The majority of TIA patients and some patients with minor stroke do not require admission to hospital and should be referred to an urgent TIA/minor stroke unit/TIA clinic/stroke-prevention clinic or comparable ambulatory care setting for rapid diagnostic and medical evaluation. All patients should be given appropriate cross-continuum prevention assessment and therapies (Modules 5 and 10).

Module 2 Recommended Practices	Contributing Sources of Evidence
2.1 Glucose management	
2.1.1 <u>Hypoglycemia</u> should be <u>corrected immediately</u>	Based on CSBPR (level B evidence)
2.1.2 <u>Blood glucose measurement should be repeated if the first random glucose value is > 11 mmol/L</u>	Based on CSBPR (level C evidence); consistent with NHS/NICE (level 1++ evidence) and Australia (level C evidence)
2.2 Body temperature	
2.2.1 <u>Temperature should be evaluated as part of routine vital signs every 4 hours for first 48 hours</u>	Based on CSBPR (level C evidence); consistent with SIGN (level C recommendation) and AHA/ASA (class I, level C evidence)
For temperature > 37.5 C:	Based on CSBPR (level B evidence); modified by expert advisory panel consensus; consistent with SIGN (level C recommendation) and AHA/ASA (class I, level C evidence)
<ul style="list-style-type: none"> • <u>initiate temperature-reducing measures</u> • <u>investigate potential infection</u> • <u>initiate antipyretic and antimicrobial therapy as required</u> 	
2.3 Cross-continuum prevention assessment and therapies	
2.3.1 <u>All patients</u> , whether admitted to hospital or discharged, should <u>be given appropriate cross-continuum secondary prevention assessments and therapies</u> (Modules 5 and 10)	Based on expert advisory panel consensus
2.4 Management of patients with TIA or minor (nondisabling) stroke	
2.4.1 The following OHTAC recommendations should be followed:	Based on the HQO EBA Is Transient Ischemic Attack a Medical Emergency?; (18) consistent with Australia (levels C and GPP evidence)
<ul style="list-style-type: none"> • OHTAC recommends that patients presenting with a <u>TIA with high-risk features^a or a minor stroke^b</u> undergo a <u>brain CT scan</u> and <u>initiation of antiplatelet therapy (provided this is not contraindicated)</u> as soon as possible and <u>no later than 24 hours after symptom onset, followed by other stroke-prevention treatments tailored to each patient</u>. With respect to the location of care, OHTAC recommends that: <ul style="list-style-type: none"> ○ <u>such immediate care be provided at a specialized TIA/minor stroke clinic^c</u> ○ <u>where delays to accessing a specialized TIA/minor stroke clinic pose risks to patient health</u>, evaluation (as outlined above) occur at an appropriately resourced ED, and further consideration be given to inpatient evaluation and management for stroke prevention. OHTAC further recommends the establishment of accreditation standards for TIA/minor stroke care to ensure equitable access to appropriate, high-quality care, irrespective of the location of initial presentation ○ <u>where medical attention has been sought after 48 hours from symptom onset</u>, patients be referred for evaluation at a specialized TIA/minor stroke clinic or alternatively an outpatient clinic with stroke-prevention services^d within 24 hours of initial presentation • OHTAC recommends that <u>patients presenting with a TIA without high-risk features^a</u> undergo a brain CT scan and initiation of antiplatelet therapy (provided this is not contraindicated) as soon as possible and no later than 24 hours after initial presentation, followed by referral to an outpatient clinic with stroke-prevention services^d for comprehensive evaluation and management within 1 month of symptom onset 	

Module 2 Recommended Practices	Contributing Sources of Evidence
2.4.2 Some TIA patients, such as those who present with fluctuating or crescendo hemibody ^a motor weakness, sensory loss, or speech difficulty, should be evaluated in the ED to be considered for admission to hospital	Based on expert advisory panel consensus
2.4.3 Patients with TIA or minor (nondisabling) stroke who <u>are not on an antiplatelet agent at the time of presentation</u> should be started on antiplatelet therapy immediately with 1 of the following after <u>brain imaging has excluded intracranial hemorrhage</u> : <ul style="list-style-type: none"> • ASA 160 mg loading dose, followed by enteric coated ASA (81–325 mg) daily. Most patients should be on a maintenance dose of 81 mg/day • clopidogrel 300 mg loading dose, followed by 75 mg/day • extended-release dipyridamole 200 mg/ASA 25 mg bid (load with ASA 160 mg first) 	Based on CSBPR (level A evidence)
2.4.4 Rectal or gastric ASA should be offered as necessary, such as for patients who fail swallowing screening	Based on expert advisory panel consensus

2.5–2.8 Recommendations are not applicable to TIA or minor (nondisabling) stroke

Abbreviations: AHA/ASA, American Heart Association/American Stroke Association; ASA, acetylsalicylic acid; Australia, Australian Clinical Guidelines for Stroke Management; CSBPR, Canadian Best Practices Recommendations; CT, computed topography; EBA, evidence-based analysis; ED, emergency department; HQO, Health Quality Ontario; OHTAC, Ontario Health Technology Advisory Committee; NHS/NICE, National Collaborating Centre for Chronic Conditions; SIGN, Scottish Intercollegiate Guidelines Network; TIA, transient ischemic attack.

^aSymptoms consistent with a hemispheric event, including sudden hemiparesis, speech difficulties, or monocular vision loss, and/or known high risk conditions associated with stroke, including atrial fibrillation (especially if inadequately anticoagulated) or known carotid artery atherosclerosis with > 50% stenosis (narrowing) on the side consistent with the hemispheric event.

^bPatients with very mild persistent symptoms or no residual symptoms but with a small asymptomatic infarct (stroke) on imaging

^cA clinic with stroke expertise and the resources to conduct all necessary investigations in 1 place to initiate rapid treatment, including brain and vascular imaging, heart monitoring, and laboratory tests.

^dFor example, a provincial stroke-prevention clinic or community neurology/internal medicine clinic with a stroke-prevention focus.

^eMotor weakness may be in 1 body segment (face, arm, or leg), but sensory loss must involve at least 2 contiguous segments (face/arm or arm/leg) on 1 side of the body to be considered highest risk.

The following implementation considerations were noted by members of the expert advisory panel.

Module 2 Implementation Considerations
General considerations <ul style="list-style-type: none"> • Standardized priority protocols should be established for all suspected stroke patients to receive treatment as soon as possible and be admitted to a stroke unit within the first few hours after presenting to an ED • Hospitals should have ready access to rectal ASA

Abbreviations: ASA, acetylsalicylic acid; ED, emergency department.