	E15 - ACUTE STROKE (ALL AGES)		
	Version date: 2025-03-16		Effective date: 2025-04-30 (07:00)
PCP = PCP- ACP ICP= ICP & ACP ACP = ACP only None =EMR - ACP			

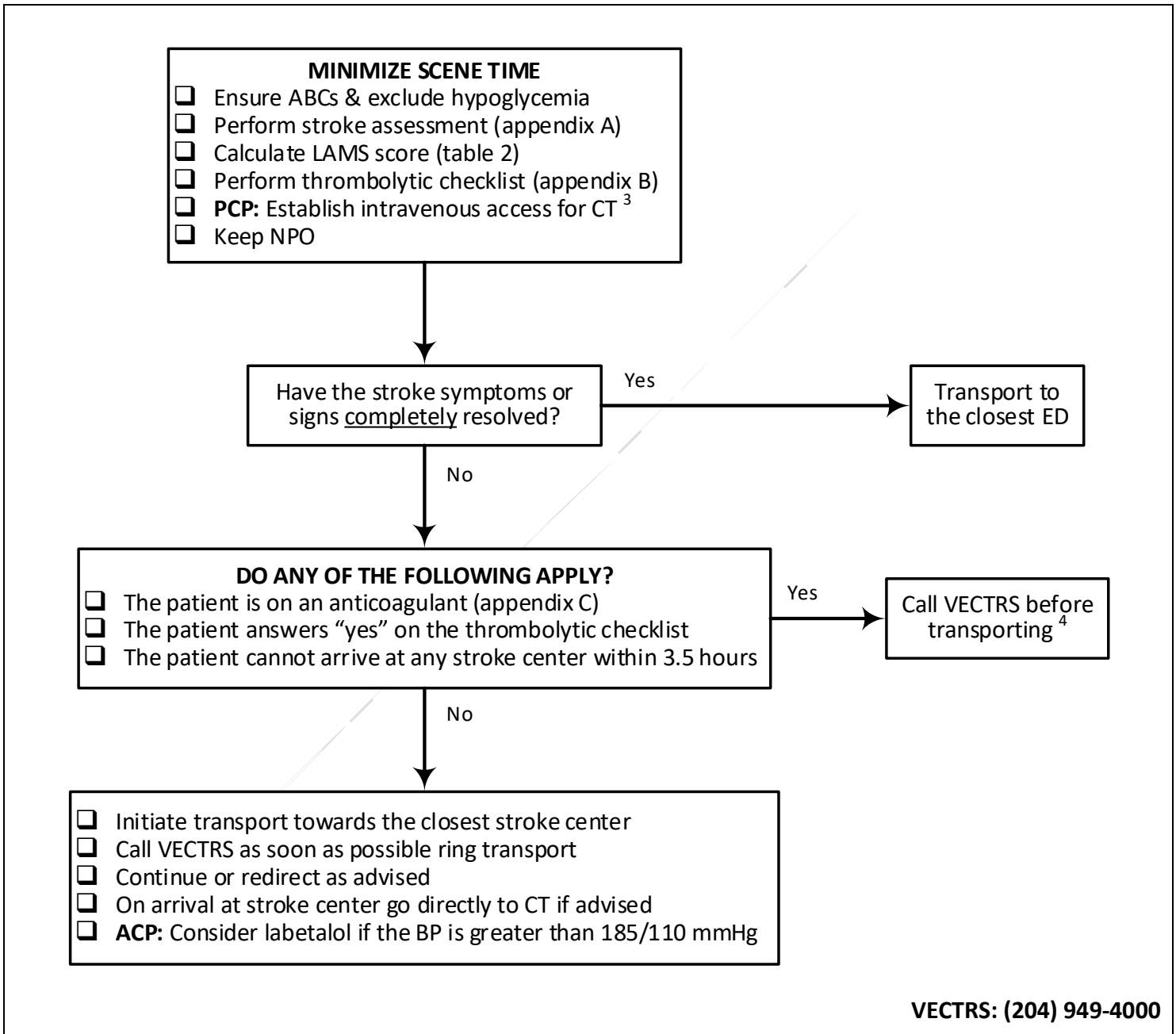


Table 1: MANITOBA STROKE CENTRES ⁵

Bethesda Regional Health Centre (Steinbach)	Health Sciences Centre (Winnipeg)
Boundary Trails Health Centre (Winkler)	Portage District General Hospital
Brandon Regional Health Centre	St. Anthony's General Hospital (The Pas)
Dauphin Regional Health Centre	Thompson General Hospital

Table 2: LOS ANGELES MOTOR SCALE (LAMS)

---	0	1	2
FACIAL DROOP	absent	present	---
ARM DRIFT	absent	drifts down	falls down
GRIP STRENGTH	normal	weak	no grip

INDICATIONS

- Known or suspected acute stroke defined as the onset within the last 23 hours ² of a new neurological deficit, including any of the following:
 - Altered level of consciousness
 - Unilateral weakness or numbness
 - Vision loss or double vision
 - Slurred speech or aphasic
 - Trouble comprehending speech
 - Imbalance

WARNINGS

- Instability of the airway, breathing or circulation that cannot be managed with available prehospital personnel, procedures, or equipment
- Glasgow coma score equal to 8 or less
- Symptoms or signs due to hypoglycemia and resolve with euglycemia
- Health care directive or advanced care plan indicating comfort care only (ACP-C)

NOTES

1. Without delaying patient care, don't forget to address the following as soon as possible.
 - a. If an air pre-alert or auto launch has been issued, the Medical Transportation Coordination Center (MTCC) will need an initial report for the transport physician (A12).
 - b. Call the Virtual Emergency Care & Transport Resource Service (VECTRS) and indicate that you have a patient with an acute stroke.
2. For the purpose of this care map, stroke onset will be presumed to be the time at which neurological symptoms or signs first appeared, or the time at which the patient was last known or witnessed to be at their neurological baseline. Stroke neurologists often refer to this as LKW or the time that they were "last known well".

For example, if a patient was LKW when they went to bed at 10:00 pm, and was found to have a deficit at 4:00 am, the onset will be presumed to have occurred at 10:00 pm.
3. Diagnostic imaging (DI) needs an 18-gauge peripheral intravenous (IV) catheter in the antecubital fossa to inject contrast for the computed tomography (CT) scans. The right arm is preferred, but the opposite arm can be utilized in the event that the patient has had prior lymph node surgery, a dialysis fistula, or no available veins.
4. Some of these patients may still be candidates for intravenous thrombolysis (IVT), but some may require endovascular therapy (EVT) which is available at the Health Sciences Center (HSC) in Winnipeg.

VECTRS *may* direct you to first proceed to a non-stroke facility that has CT capacity (e.g. Swan River, Selkirk) for angiography, followed by secondary interfacility transfer to the comprehensive stroke center at HSC.
5. Because of the potential need for transfer to HSC and the logistics of patient repatriation, paramedics will only transport to a Manitoba stroke center (table 1).
6. For patients being transported to HSC, VECTRS will activate the stroke team ("stroke-25") and transmit a CT requisition. If the VECTRS clinician advises you to take the patient directly to CT, do the following:
 - Take the patient to emergency department (ED) receiving hallway.
 - One paramedic will remain with the patient, while the other will inform the triage nurse that the stroke-25 patient has arrived.
 - An emergency clinician will assess the patient to confirm that the patient can safely proceed to CT or may redirect you to the resuscitation room if the patient is unstable.
 - After CT, paramedics will remain with the patient until the disposition is determined.
 - If the patient does not require treatment or admission at HSC, paramedics may be directed to return the patient to a designated site within the Regional Health Authority (RHA) from where the patient was first picked up or where the patient resides. This will be considered as an extension of the initial primary 911 call and does not need to be booked as an IFT.
7. For patients being transported to other telestroke sites, VECTRS will provide a stroke pre-alert to the facility. Depending upon local practice, you may be advised to take the patient directly to CT or to present first to the ED. Paramedics will remain with the patient until the disposition is determined.
8. Paramedics will encourage an individual who is able to verify the time of onset and/or provide collateral information and/or provide substitute (proxy) consent to accompany the patient. If the proxy cannot accompany the patient, obtain appropriate information (e.g. phone number) for immediate contact and advise them to remain readily available.
9. Paramedics will provide notification (an estimated time of arrival) to receiving ED staff at an appropriate interval before arrival.

10. Note that in certain Provincial facilities (e.g. personal care home, rural / remote emergency department, Northern nursing station) a physician may not be readily available to assess a suspected stroke patient in a timely fashion.

To limit delays to treatment, some Regional Health Authorities (RHA) instruct their staff to call “911” for a primary response. Alternatively, some RHA staff may be directed to call the Medical Transportation Coordination Center (MTCC) to request an urgent interfacility transport (IFT).

In either scenario, MTCC will authorize these without requiring the name of a sending or receiving physician and paramedics will manage these as a primary 911 call.

LINKS

- None

APPROVED BY



EMS Medical Director



EMS Associate Medical Director

VERSION CHANGES (refer to X05 for change tracking)

- Addition of advanced work scope and labetalol

APPENDIX A: FOCUSED STROKE ASSESSMENT

Identifying information *(required to access prior medical records):*

- Patient name
- Date of birth
- Personal health information number (PHIN)

Initial information:

- Patient age & gender
- Stroke symptoms or signs
- Time of onset or last known to be well (LKW) ²
- Indicate if the patient is on an anticoagulant
- Time to closest stroke center or telestroke site
- Advanced health care directive

Initial clinical assessment

- Vital signs, including point-of-care glucose
- Los Angeles Motor Scale (table 2)
- Focused neurological examination for stroke - note right or left:
 - Level of consciousness (alert, responds to voice, responds to pain or unresponsive)
 - Speech (normal, slurred, incomprehensible or mute)
 - Smile (normal, partial droop or complete droop)
 - Arm strength (normal, slow drift or rapid fall)
 - Leg strength (normal, slow drift or rapid fall)
- Thrombolytic checklist (appendix B)
- Significant medical history

APPENDIX B: THROMBOLYTIC CHECKLIST

Active internal bleeding with last 21 days (e.g. gastrointestinal or urinary tract)	Yes	No
Intracranial or intraspinal surgery, serious head trauma or stroke within last 3 months	Yes	No
Major surgery or serious non-head trauma within last 14 days	Yes	No
Recent arterial puncture at non-compressible site within last 7 days	Yes	No
Lumbar puncture within last 7 days	Yes	No
History of intracranial hemorrhage, arteriovenous malformation (AVM), or aneurysm	Yes	No
Witnessed seizure at onset of stroke	Yes	No
Pregnancy	Yes	No
Recent myocardial infarction	Yes	No
Blood glucose less than 2.7 mmol/L or greater than 22.2 mmol/L	Yes	No

APPENDIX C		
ORAL ANTICOAGULANTS		
GENERIC NAME	CANADIAN NAME	AMERICAN NAME
Apixaban	ELIQUIS	ELIQUIS
Betrixaban	<i>Not available in Canada</i>	BEVYXXA
Dabigatran	PRADAXA	PRADAXA
Edoxaban	LIXIANA	LIXIANA
Rivaroxaban	XARELTO	XARELTO
INJECTABLE ANTICOAGULANTS		
Dalteparin	FRAGMIN	FRAGMIN
Danaparoid	ORGARAN	ORGARAN
Enoxaparin	LOVENOX	LOVENOX
Fondaparinux	ARIXTRA	ARIXTRA
Nadroparin	FRAXIPARINE	FRAXIPARINE
Tinzaparin	INNOHEP	INNOHEP
Unfractionated heparin	HEPARIN	HEPARIN