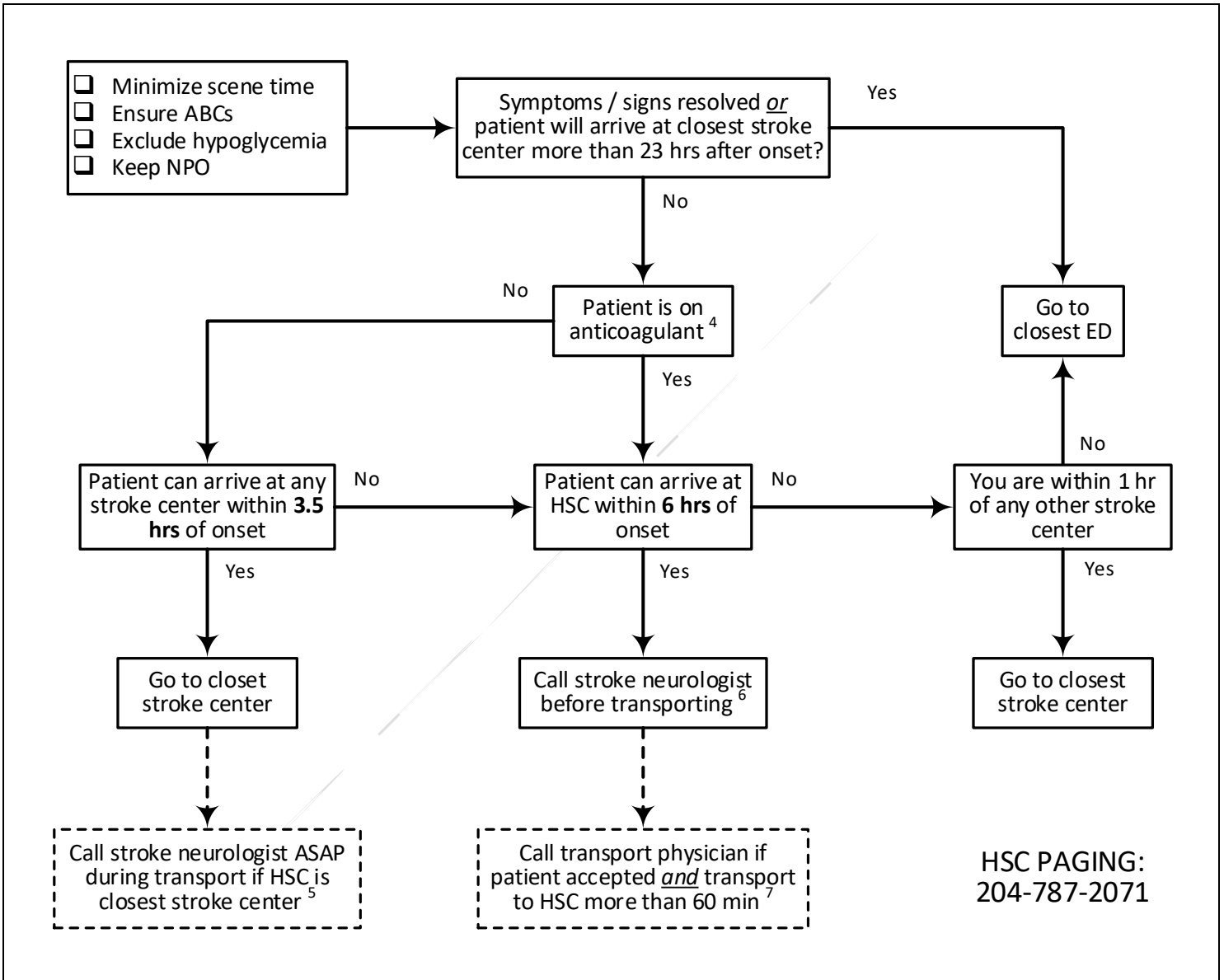
	<b>E15 - ACUTE STROKE</b>	
	Adult	MEDICAL
Version date: 2024-01-19		Effective date: 2024-02-13 (0700)



<b>IDENTIFIER:</b>	EMR: EMR only	PCP: PCP & ICP	ICP: ICP only	None - All providers
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**Table 1: MANITOBA STROKE CENTRES<sup>2</sup>**

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

**INDICATIONS**

- Onset within the last 23 hours 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

**CONTRAINDICATIONS**



- 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. For the purpose of this care map, stroke onset will be defined as the time at which neurological symptoms or signs first appeared or the time at which the patient was last seen to be at their neurological baseline.
2. Because of the potential need for rapid referral to the Health Sciences Center (HSC) for interventional stroke treatment or neurosurgical assessment and the challenges with patient repatriation, paramedics will only transport to a Manitoba stroke center (table 1).
3. In certain locations, such as a rural emergency department (ED) or Northern nursing station, it may not be possible for a physician to assess the patient in a timely manner. To limit delay, a nurse may initiate an interfacility transport (IFT) without assessment by a physician. The Medical Transportation Coordination Center (MTCC) will authorize the IFT without the requirement of a receiving physician. Paramedics will manage this as if it were a primary response call.

4. Patients on anticoagulants cannot receive intravenous thrombolysis (IVT). Some may be suitable for endovascular thrombectomy (EVT) available only at HSC.  
 Anticoagulants are listed in reference H11. The most common agents include apixaban (ELIQUIS), dabigatran (PRADAXA), rivaroxaban (XARELTO), and warfarin (COUMADIN).
5. As soon as possible during transport, call HSC paging (204-787-2071) and request to speak to the “on-call stroke neurologist” for a “stroke-25 outside call”.
6. As soon as possible before transporting, contact the stroke neurologist. They may advise going directly to HSC, or transporting to an alternate site for initial medical assessment and diagnostic imaging.
7. If the neurologist advises direct transport to HSC and the transport time will be greater than 60 minutes, promptly contact MTCC and request to speak to the “Provincial transport physician” for possible air intercept.
8. The stroke neurologist may advise paramedics to inform the Virtual Emergency Care and Transport Resource Service (VECTRS) who can provide “stroke-25 activation” to HSC and pre-register the patient for computed tomography (CT) imaging and angiography. Paramedics may be directed to transport the patient directly to CT.
9. 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.

LINKS
<ul style="list-style-type: none"> <li>• H11 - ANTICOAGULANTS</li> </ul>

APPROVED BY	
	
EMS Medical Director	EMS Associate Medical Director

VERSION CHANGES (refer to X05 for change tracking)
<ul style="list-style-type: none"> <li>• Simplified flow chart &amp; notes</li> <li>• Revised indications &amp; contraindications</li> <li>• Direction to go to telestroke site if within one hour</li> <li>• Identifier legend at bottom of flow chart replaces work scope statement in header</li> </ul>

### APPENDIX A: STROKE ASSESSMENT

#### Initial information:

- Patient age & gender
- Stroke symptoms or signs
- Time of onset
- Indicate if the patient is on an anticoagulant
- Time to closest stroke center or telestroke site
- Advanced health care directive

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

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

#### Initial clinical assessment

- Vital signs, including point-of-care glucose
- Los Angeles Motor Scale (LAMS - appendix B)
- 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)

#### Medical history *(obtain as much detail as possible)*

- Within the last 3 months has the patient had a surgical procedure, major traumatic injury, myocardial infarction, and/or any serious bleeding?
- Has the patient had a seizure within the last 24 hours?
- What other health conditions does the patient have?
- Does the patient have a bleeding or clotting disorder?
- Is the patient on an anticoagulant? What other medications does the patient take?
- Is the patient allergic to any medication or substance?
- When did the patient last eat or drink?

### APPENDIX B: LOS ANGELES MOTOR SCALE (LAMS)

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