Recommendations to optimize the use of thrombectomy for stroke in Québec: a healthcare system perspective

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BACKGROUNDBackground
Randomized trials have shown that thrombectomy (endovascular treatment, EVT) is a highly effective treatment for ischemic stroke patients with large vessel occlusions. We were mandated by the Ministry of Health and Social Services to make recommendations to optimize use of this technology in Québec.

METHODSMETHODS

DEVELOPMENT OF RECOMMENDATIONS ON THE BASIS OF A SYNTHESIS OF INFORMATION FROM DIFFERENT SOURCES

SCIENTIFIC DATA
- Guidelines
- Health Technology Assessment reports
- Expert consensus documents
- Policy documents from Ontario and Alberta
- Quebec “real world” data [2017-2018]

CONTEXTUAL DATA
- Consultations with interdisciplinary experts
- Consultation with professional association representatives
- Consultation with healthcare managers
- Consultation with stroke patients
- Consultation with stroke team members

EXPERIMENTAL DATA
- Consultation with on-site stroke team members
- Consultation with stroke team leaders
- Consultation with healthcare managers
- Consultation with interdisciplinary experts

FOUNDING PRINCIPLES FOR THE RECOMMENDATIONS
- a global vision of Québec’s healthcare system, in which the stroke care continuum operates
- equitable access to care and services
- efficient use of the system’s currently existing structures and resources before planning the addition of new EVT programs
- consideration of the patient’s perspective in the offer of services, notably with regard to preferences and life objectives

RESULTS

RECOMMENDATIONS FOR THE MINISTRY
- Designate stroke care networks
- Determine care pathways and processes to be put in place in each network
- Support implementation of effective methods of 24/7 communication to facilitate optimal decision-making
- Establish a provincial protocol to standardize the performance of diagnostic imaging and the sharing of images between hospitals
- Support development and maintenance of the quality of the care networks

RECOMMENDATIONS FOR EVT CENTRES
- All designated EVT centres should:
  - Implement mechanisms for 24/7 rapid mobilization of EVT teams and the necessary resources, notably imaging services
  - Ensure follow-up of patients who receive EVT, including determination of the modified Rankin Scale score at 90 days, in person or by telephone, and documentation of the result, given the relative novelty of the technology and the evolution in indications
  - Produce, in close collaboration with stakeholders from EMS and the network’s non-EVT facilities,prehospital, intrahospital and interhospital protocols specifying the optimal care pathways and processes, according to the particularities of the given network

RECOMMENDATIONS FOR EMS (EMERGENCY MEDICAL SERVICES)
- Emergency medical services in each stroke care network should:
  - Ensure the standardized use, by all ambulance technicians, of the best tool for initially identifying a major stroke (currently, 3/3 on the Cincinnati Prehospital Stroke Scale)
  - Apply the protocols established for the network
  - Implement, in accordance with the protocols established for the network, the necessary measures for prioritizing, in a safe manner:
    - direct transport of patients suspected of having a major stroke and likely to benefit from EVT to a designated EVT centre
    - transport of patients who are not likely to benefit from EVT to a secondary centre for clinical evaluation
    - urgent interhospital transport from a secondary (or other) facility to an EVT centre, when endovascular treatment is indicated
    - rapid repatriation of stroke patients from an EVT centre to a secondary centre

RECOMMENDATIONS FOR NON-EVT CENTRES WITH AN ON-SITE STROKE UNIT
- Ensure immediate, priority access to imaging services for suspected stroke patients and timely thrombolysis, when indicated
- Ensure rapid referral of patients who might benefit from EVT
- Accept patients repatriated by the EVT centre, with no right of refusal

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CONCLUSION
The synthesis of scientific literature, clinician and patient experience and real-world Québec data enriched the formulation of recommendations tailored to various stakeholders in the healthcare system. A collaborative effort is required to optimize use of thrombectomy in Québec.