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COVID-19 and the management of ST-segment elevation myocardial infarction (STEMI): Adaptations to provincial standards

English summary of an updated rapid response

Une production de l'Institut national
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SUMMARY

COVID-19 and the management of ST-segment elevation myocardial infarction (STEMI): Adaptations to provincial standards

Preamble

This document was prepared in response to a request from the Ministère de la Santé et des Services sociaux (MSSS), in the context of the public health emergency due to coronavirus disease (COVID-19) in Québec. The objective was to conduct a summary review of published data and to mobilize key knowledge-holders to inform public decision-makers and professionals in health and social services. Given how rapidly the document was generated, its findings and positions are not based on an exhaustive review of published data, an assessment of the methodological quality of studies using a systematic approach, nor on an elaborate consultation process.

INESSS's position (April 20, 2021)

Based on the scientific literature available at the time of writing and on the consultations conducted, **INESSS is of the opinion that the management of ST-segment elevation myocardial infarction (STEMI) in the setting of a SARS-CoV-19 pandemic must be based on the following principles**:

- Ensure the protection of the patient (and other patients in the vicinity) from SARS-CoV-2 infection;
- Ensure the protection of health care personnel who are trained in the appropriate use of personal protective equipment;
- Promote clinical activities identified as priorities and communication between partners in care networks, with the aims to preserve hospital resources and maintain quality of care;
- Maintain the overall organization of services for the management of STEMI, despite the public health emergency related to COVID-19, as well as monitoring of processes and treatment times during the pandemic.

In addition, the following are to be integrated into the provincial standards for STEMI:

- 3 additional standards for prehospital emergency services;
- 2 additional standards for hospitals that do not provide percutaneous coronary intervention (PCI) and 3 additional standards and one modified standard for hospitals that offer PCI;
- 5 additional standards for networks and one additional standard for support of quality improvement.

Summary of adaptations to standards

The additional standards primarily address reducing the risk of SARS-CoV-2 infection, limiting the number of providers involved in patient care and assessing and communicating infection risk. One of the additional standards expands performance monitoring to assessing the impact of COVID-19 on treatment delays.

The single modified standard adds a brief stop in the emergency department for suspected STEMI patients who have been transported to a PCI hospital by ambulance, prior to going to the catheterization laboratory, to evaluate risk associated with STEMI, risk of SARS-CoV-2 infection and respiratory status.

It is emphasized that for suspected STEMI patients managed by prehospital emergency medical services, **the preference for reperfusion treatment by primary PCI following direct transport to a PCI centre remains the provincial standard,** regardless of the patient's known or suspected COVID-19 status. An exception to this should be made only in the situation of complete incapacity to provide hemodynamic services.

Summary of methodology

Professional society recommendations were integrated in this rapid response with Québec experience of the first wave of the COVID-19 pandemic (March to July 2020). A search in the PubMed bibliographic database (March 1, 2020 – February 23, 2021) was carried out to retrieve recommendations published by authorities and learned societies in Canada, the United States and Europe. A multidisciplinary committee of physicians, researchers and healthcare managers were consulted by videoconference in July 2020, and the document was reviewed by a clinical advisory panel and two external readers.

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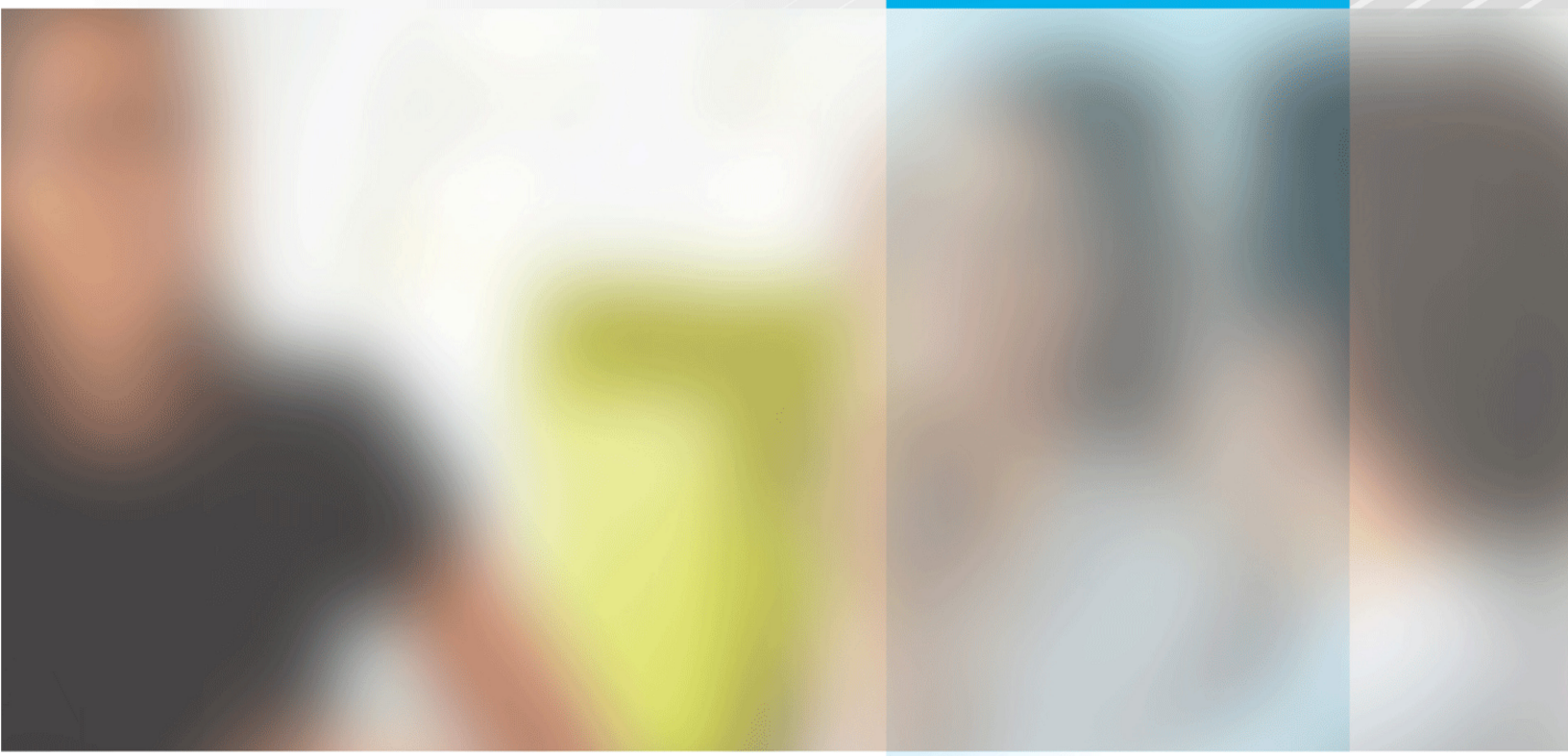

Siège social

2535, boulevard Laurier, 5e étage
Québec (Québec) G1V 4M3
418 643-1339

Bureau de Montréal

2021, avenue Union, 12e étage, bureau 1200
Montréal (Québec) H3A 2S9
514 873-2563
inesss.qc.ca

Institut national d'excellence en santé et en services sociaux
Québec