



# Program Quality Improvement Initiatives to Address STEMI Indicators

## Quality Performance Measurement and Monitoring Cycle Summary Document

Q2 2019/20 Discussions

March 2020

## Introduction

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In October and November of 2019, CorHealth Ontario (CorHealth), in partnership with the Ministry of Health, and LHINs, met with each of the 20 cardiac programs, for the fifth Quality Performance Measurement and Monitoring (QPMM) Cycle. Discussions focused on key indicators related to STEMI care included in the QPMM Quality Scorecard.

As part of the QPMM process, CorHealth produces a follow up document to share learnings, successes, efforts, and challenges across the province based on the discussions.

**Additional Resources:** CorHealth has published [resources to support STEMI providers](#) on the website, including the Ontario STEMI Bypass Protocol, the Ontario Emergency Department Protocol (education, pocket cards, algorithm), Partnership Maps, Paramedic 12-Lead ECG Guidelines, and a previous version of this document.

## Program Quality Improvement Initiatives

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The focus of this summary Q2 19/20 document aims to highlight four programs who have put in place successful quality improvement (QI) initiatives to address the STEMI indicators. Initiatives to address each indicator are colour-coordinated: **% of STEMI cases presenting to a PCI Hospital achieving Door-to-Balloon-Time ≤ 90 minutes**; **% of STEMI cases presenting to a Non-PCI Hospital achieving Door-to-Balloon-Time ≤ 120 minutes**, and **actions that work to address both indicators**.

### SCARBOROUGH HEALTH NETWORK

INITIATIVES	DESCRIPTION
<b><i>Working with EMS and Feeder Hospitals to Address False Activation of Code STEMI</i></b>	As a high-volume STEMI program, Scarborough Health Network (SHN, on the QPMM Scorecard as RVH), has identified false activations of the STEMI system as a target area of focus. To address this without impacting STEMI cases, the EMS activates Code STEMI, while conducting an ECG and consulting with interventionalists on real time results and patient symptoms. If it is confirmed that Code STEMI activation is not required, EMS will deactivate Code STEMI and bring the patient into the Emergency Department (ED) for further evaluation. SHN has created a space

for ED physicians to discuss suspected false positive cases. For hospital activated cases, the interventionalist does a verbal review post Code STEMI activation with ED physician giving them an opportunity to deactivate the Code STEMI.

***Providing EMS and Feeder Hospitals with Case-By-Case Feedback***

SHN works to sustain good communication and regular feedback with EMS and feeder hospitals. Noticing a feeder hospital time dropping in their door-in-door-out time, SNH now provides feedback on every case that comes into the program from EMS and the feeder hospital. This information is transferred through an encrypted email thread that includes physicians, nurse managers, and nurses. This email thread is sent out from the PCI coordinators at SHN and is supported by the STEMI program's interventionalists. This feedback creates accountability and interest in improvement on their feeder hospital's transfer times. It also helps EMS evaluate prehospital timeliness. These strategies have optimized response times and created a platform to discuss the patient journey, care of the patient and serves as an environment of learning and positive feedback for the whole team.

*For further information on these initiatives, please contact SHN's Hospital Administrator Trixie Williams [trwilliams@shn.ca](mailto:trwilliams@shn.ca)*



*Cath lab images from Scarborough Health Network*

**THUNDER BAY REGIONAL HEALTH SCIENCES CENTER**

**INITIATIVES**

**DESCRIPTION**

**Assessing Door-to-ECG Time with a Gendered Lens**

Thunder Bay Regional Health Sciences Center (TBRHSC) has identified patients self-transporting as a major focus area for the program. The team is currently putting effort into assessing Door-to-ECG times with a gendered lens, as gender can influence the presentation of typical angina and lead to longer times waiting for diagnostic testing.

**Applying Learnings and Process from Code Stroke to Code STEMI**

With the recent relaunch of the Code STEMI at TBRHSC, the team has chosen to take the learnings and processes already in place based on Code Stroke, to facilitate a more streamlined adoption of this new process in the program.

**Development of Code STEMI Infographic**

The team worked to create a visually striking, easy-to-read infographic on STEMI, including background information, key performance measures, and highlights the program's current results. The goal is to ensure that staff are aware of the terminology and key metrics. The infographic is posted around the program's high traffic areas.

For further information on these initiatives, please contact TBRHSC Hospital Administrator Meaghan Sharp [sharpme@tbh.net](mailto:sharpme@tbh.net)

**Code STEMI – Performance Measures Q2 2019**



**STEMI**  
ST-Elevation Myocardial Infarction

**Heart Attack**  
STEMI is a very serious heart attack in which one of the heart's major arteries is blocked

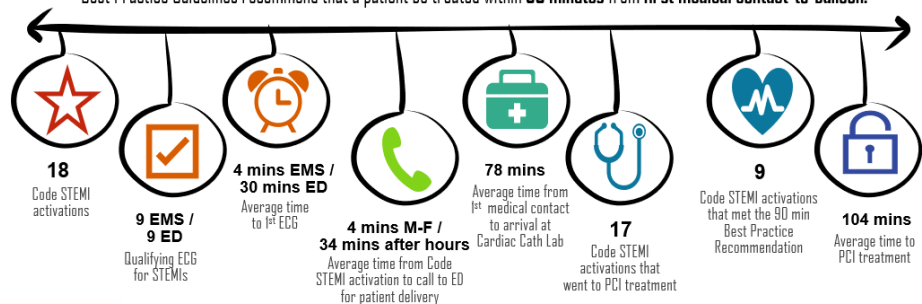
**Time**  
STEMI can cause death if not treated quickly

**12-Led ECG**  
12-lead electrocardiogram (ECG) is the primary diagnostic tool used for the identification of a STEMI

**Treatment**  
STEMIs are treated through the restoration of blood flow in the coronary artery through "reperfusion" modalities

**PCI**  
Percutaneous coronary intervention (PCI), a procedure in which the blocked coronary arteries are reopened using a balloon and / or stent

Timely reperfusion requires seamless transportation, diagnosis and treatment. Time is measured in minutes. Best Practice Guidelines recommend that a patient be treated within **90 minutes** from first medical contact-to-balloon.



## TRILLIUM HEALTH PARTNERS

### INITIATIVES

### DESCRIPTION

***Focusing on Door to ECG Time through Partnering with ED***

The team at Trillium Health Partners (THP) has worked to identify that streamlining the process in their ED and focusing on their Door-to-ECG time was a priority in order to meet the target. Working closely with the ED, a QI initiative was put in place to streamline this process. The initiative has been a critical success factor in THP's consistently high performance on this indicator.

*For further information on these initiatives, please contact THP's Hospital Administrator Robin Horodyski [robin.horodyski@thp.ca](mailto:robin.horodyski@thp.ca)*

## NIAGARA HEALTH SYSTEM

### INITIATIVES

### DESCRIPTION

***Supporting PCI Center Through a Focus on Door-in-Door-Out Initiatives***

The team at Niagara Health System (NHS) is working diligently on their Door-In-Door-Out times and ultimately supporting Hamilton Health Sciences (HHS) indicator targets for STEMI with some notable efforts on the following initiatives: collaboration between EMS and ED leadership to establish an alternate dispatch protocol; a parallel activation protocol, in which an ED physician can call an EMS contact to discuss the case; and in the future, looking into simulation work to help the team identify factors that lead to delayed times.

*For further information on these initiatives, please contact NHS Hospital Administrator Jill Randall [jill.randall@niagarahealth.on.ca](mailto:jill.randall@niagarahealth.on.ca)*