

# Optimizing the Diagnosis of Acute Myocardial Infarction/Injury in Women

Can one simple change in how we diagnose myocardial infarction improve care for women and reduce their risk of cardiovascular events and death?

## What is CODE-MI?



CODE-MI is a multi-centre, stepped-wedge, cluster-randomized controlled trial funded by CIHR



Focusing on the need for different standards of evaluation for women with ischemic symptoms



The study is running in 30 hospitals across 8 provinces

## Women with acute coronary syndrome = underdiagnosed and undertreated.



Therefore, women are at **higher risk of mortality** following their infarction.

## Why?

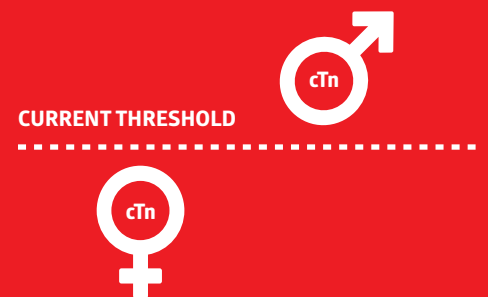
Using a single level high-sensitivity cTn (hs-cTn) threshold to identify patients with a myocardial infarction (MI) may contribute to the underdiagnosis of MI in women.

A single, overall cTn threshold is still used in most clinical settings, despite evidence and guidelines recommending sex-specific thresholds.

## The importance of sex-specific thresholds

Women's levels of hs-cTn are **lower than the overall threshold currently being used**, and lower than the threshold in men, for all assays.

CURRENT THRESHOLD



## Women have different levels of cTn than men because of factors like:

- Unequal heart mass
- The protective role of estrogen
- Thrombotic activity
- Different mechanisms of ischemia

## CODE-MI will...

- Use the 99<sup>th</sup> percentile female threshold for the diagnosis of MI in women presenting to the ED with ischemic chest pain, instead of the overall 99<sup>th</sup> percentile threshold
- Provide an opportunity to test the impact of sex-specific thresholds on the diagnosis, treatment, and outcomes of women presenting to ED with ischemic chest pain