

Access to Cardiac Catheterization and Diagnosis of Critical Coronary Artery Disease (CAD) in Patients With ST Elevation Myocardial Infarction (STEMI) in NL

Guideline: American College of Cardiology/American Heart Association (ACC/AHA)

1. Patients with STEMI should have cardiac catheterization (CC) within 24 hours.

Practice Point

1. Randomized controlled trials demonstrate that patients who present with STEMI and have immediate CC ± revascularization have better clinical outcomes compared to conservative management.

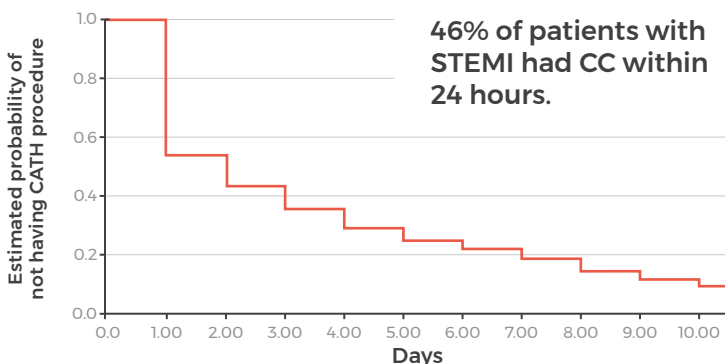
Methods

1. To determine access to CC and the rate of diagnosis of critical Coronary Artery Disease (CAD), an analysis of patients with STEMI entered in the APPROACH database from 2007-2017 was completed.
2. Critical CAD was defined as ≥ 1 coronary artery with ≥ 70% stenosis or ≥ 50% stenosis of left main coronary artery.

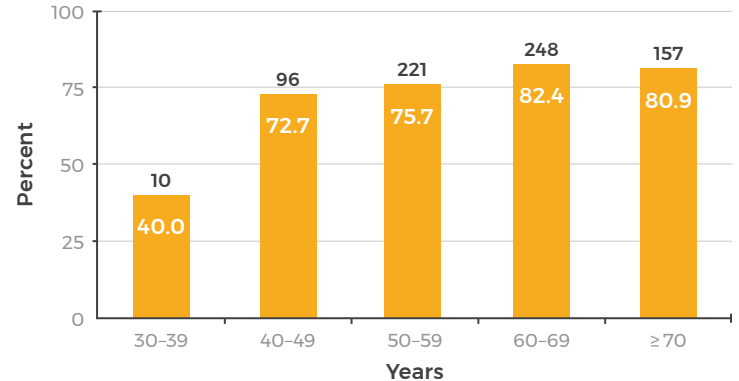
Results

- During the past decade the annual number of CCs undertaken because of STEMI increased from 254 in 2008 to 324 in 2017, an increase of 27.6%.

Time to CC in Patients With STEMI (2014-2017)

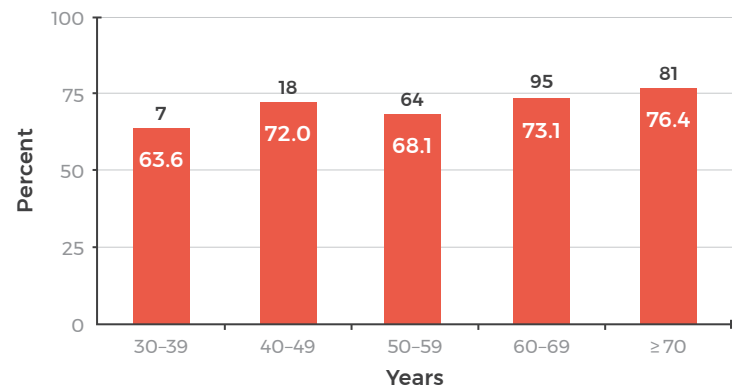


Percentage Diagnosed With Critical CAD in Male Patients With STEMI by Age



- The percentage of males diagnosed with critical CAD was 75.8% in 2007-2010 and 77% in 2014-2017.

Percentage Diagnosed With Critical CAD in Female Patients With STEMI by Age



- In females, the percentage was 75.4% in 2007-2010 and 72.7% in 2014-2017.

Conclusions

1. Access to CC for STEMI within 24 hours was poor. The catheterization lab has created 7 day a week, 24-hour-a-day, emergency availability to improve access.
2. Interventions to improve transfer times for STEMI patients admitted outside the Health Sciences Centre will be implemented.