# Diagnosis of Critical Coronary Artery Disease Using Cardiac Catheterization in Patients With Stable Angina in NL

## Choosing Wisely Canada Recommendation

1. Don't order or refer for percutaneous coronary intervention in patients with stable Coronary Artery Disease (CAD) who do not have high-risk features, are asymptomatic, or have not been on optimal medical therapy.

## Practice Points

1. Typical angina is present when the following three criteria are present:
   a) retrosternal discomfort,
   b) provoked by exercise or stress,
   c) relieved by rest or NTG.
   The presence of one of the three criteria implies non-anginal chest pain with low probability of critical CAD, two criteria imply atypical angina with intermediate probability of critical CAD.

2. Exercise stress testing adds little to the probability of diagnosing critical disease in those without known CAD.

3. Myoview testing or coronary CT to identify patients at high ischemic risk improves the probability of diagnosing critical CAD with catheterization.

## Method

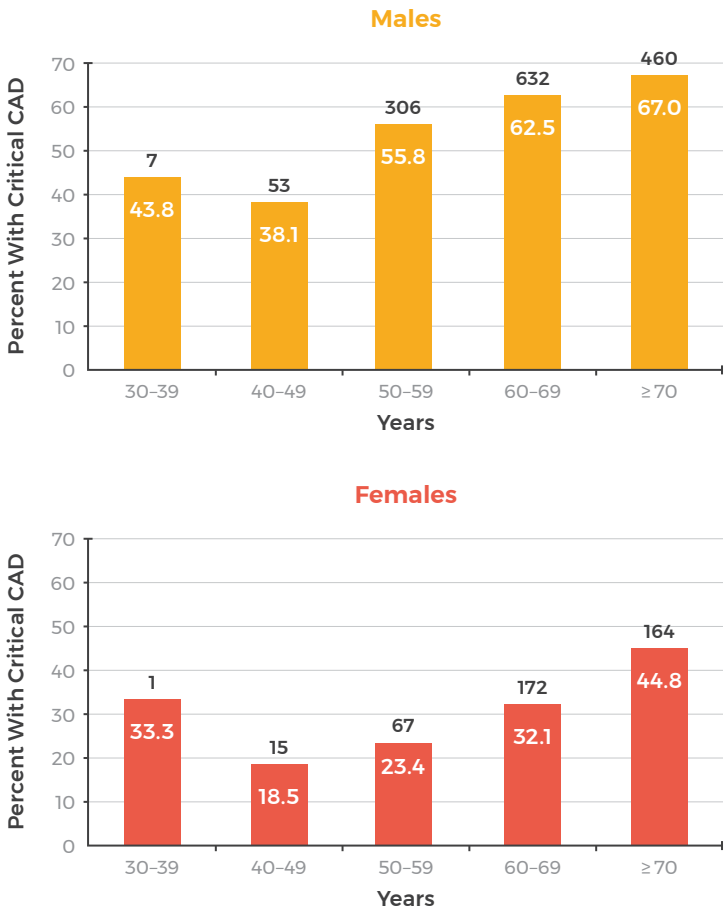
1. All patients in the APPROACH database who had cardiac catheterization (CC) for stable angina from 2007–2017 were analyzed. Critical CAD was defined as ≥ 1 vessel with stenosis ≥ 70% or left main artery ≥ 50 %.

## Results

- Over 11 years the average annual number of CCs done for stable angina was 901, with little difference in volume over time.

- From 2007–2010 the percentage with critical CAD was 55.0% and from 2014–2017 the percentage fell to 50%.

## Percentage of Patients who had CC for Stable Angina Diagnosed with Critical CAD by Age and Sex (2014–2017)




- The diagnosis of critical CAD is very poor in women and men aged less than 50 years, and poor in men aged 50 years and older.

- The percentage of males diagnosed with critical CAD decreased from 64.9% in 2007–2010 to 60.3% in 2014–2017. The percentage of females diagnosed decreased from 37.5% in 2007–2010 to 32.3% in 2014–2017.

## Conclusion

1. CC should only be undertaken in patients with stable angina with high risk features on history or non-invasive testing, provided coronary revascularization is considered an option.