

# Impact and Clinical Outcomes of the Chest Pain Optimal Care Pathway

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## Introduction

- Chest pain is the most common presentation to the emergency room (ER) with about 8 to 10 million visits and costs up to \$10-13 billion dollars in the US annually
- As the vast majority of these cases have no evidence of acute myocardial infarction (AMI), rapid rule-in and rule-out diagnostic testing strategies have been trialed in the ER to quickly risk stratify and identify low-risk patients, but fear of early downstream events limits utilization

## Objective

- To assess the impact of our Chest Pain Optimal Care Pathway on 30-day events

## Study Design

- Retrospective analysis of adults who presented to UK ER with the primary complaint of non-traumatic chest pain from 6/1/18 to 6/1/19 and were subsequently discharged without receiving any inpatient intervention or testing
- The Chest Pain Optimal Care Pathway was implemented starting 12/11/18, allowing for about 6 months pre- and post- intervention

## Outcomes

- Primary outcome: Major adverse cardiovascular events (cardiovascular or unknown cause of death, acute MI, or unplanned non-ACS PCI/CABG)
- Secondary outcomes: Planned outpatient interventions, ischemic evaluation, and outpatient follow-up within our system

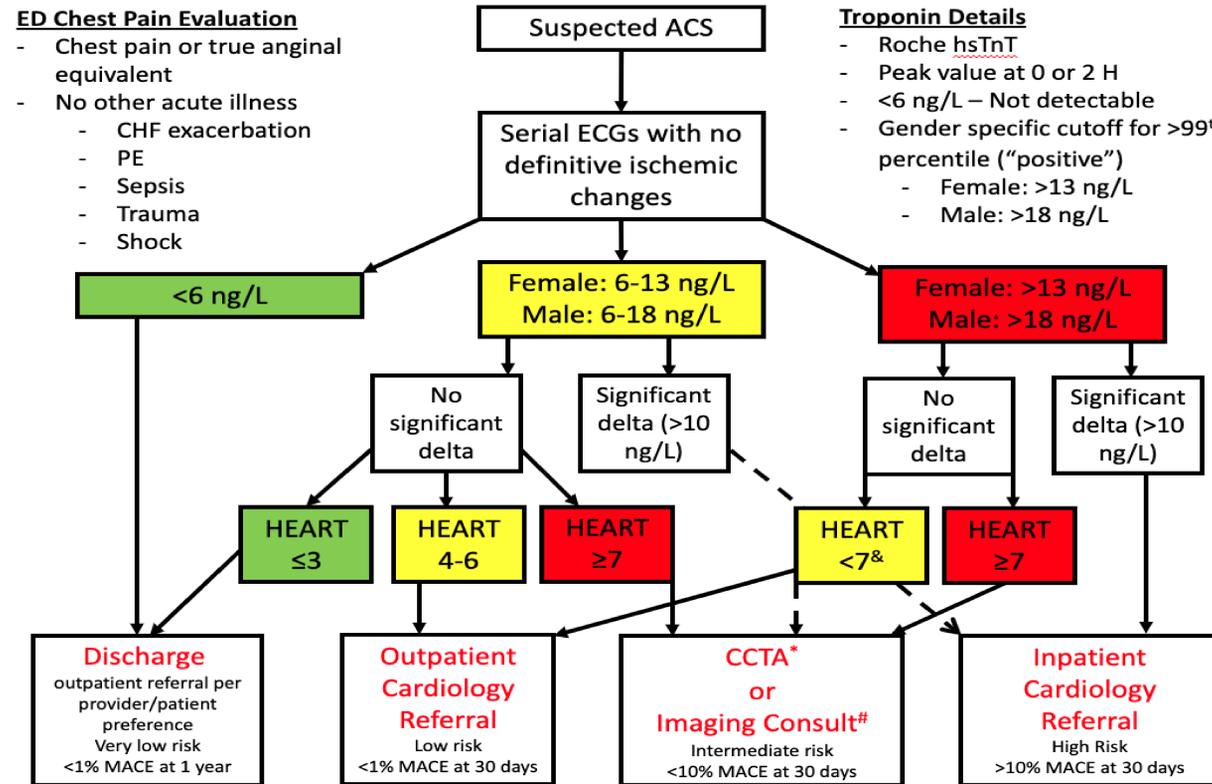


Figure 1. Chest Pain Optimal Care Pathway Algorithm

## Impact of Troponin Optimal Care Pathway

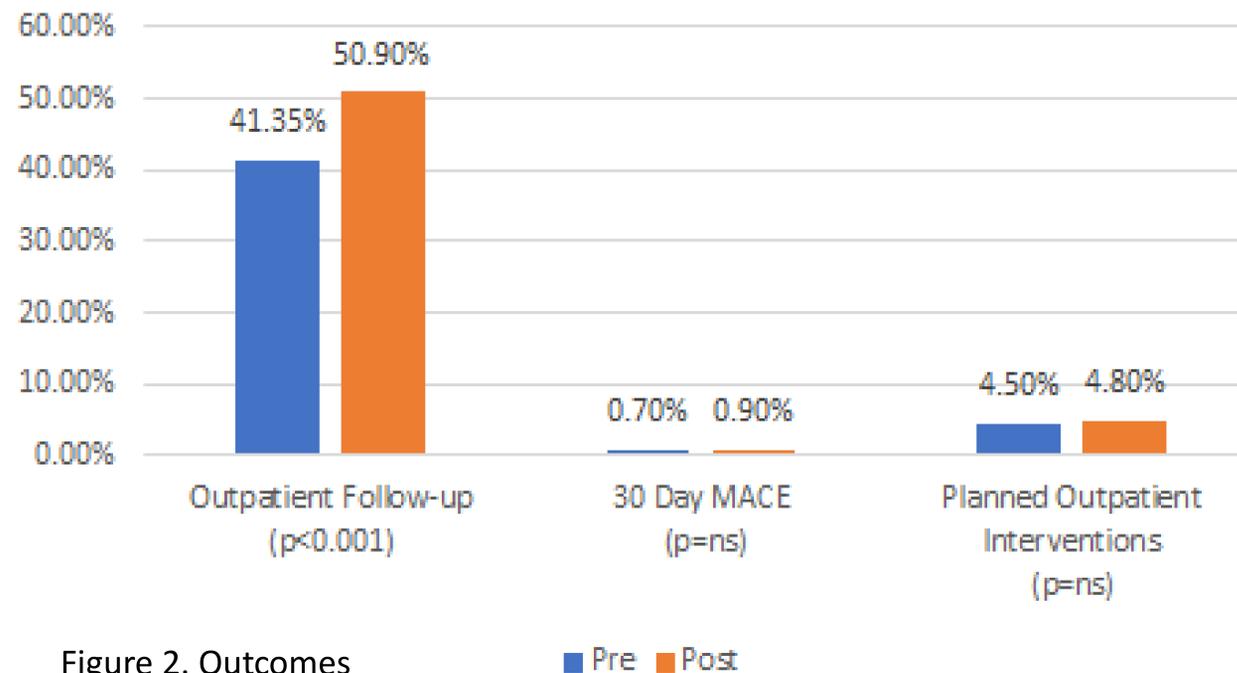


Figure 2. Outcomes

## Results

- 3759 patients who presented with chest pain during the study period, 1830 pre-intervention and 1929 post-intervention
- Of these, 1738 had follow-up data in our system, with a significantly higher proportion of patients following up in post-intervention (41.3% vs 50.9%, p<0.001)
- No difference in the primary outcome of MACE at 30 days (0.7% vs 0.9%, p=ns)
- No differences in planned outpatient interventions (0% vs 0.3%, p=ns), outpatient testing (4.5% vs 4.8%, p=ns)

## Conclusion

- The introduction of a Chest Pain Optimal Care Pathway at our institution is a safe strategy with a low risk of MACE events at 30 days after being discharged from the ED for chest pain
- Within 6 months of implementation, preliminary data appears to show that not only did our pathway result in non-inferior outcomes, but it also assisted in helping patients achieve higher rates of outpatient follow-up for further care

Authors' Disclosure: None

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