



# The Barts Heart Attack Centre early discharge pathway:- a novel protocol for next day discharge after primary PCI for ST-elevation myocardial infarction

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## Background and Purpose

Heart attack services have improved clinical outcomes following ST elevation myocardial infarction (STEMI) by facilitating early reperfusion by primary percutaneous coronary intervention (PCI). Knowledge of the coronary anatomy adds an important element to risk stratification of patients for recurrent cardiovascular events. Early discharge after primary PCI is welcomed by patients and increases efficiency of healthcare.

## Aim

To assess the safety and feasibility of a novel early hospital discharge (EHD) pathway for low-risk STEMI patients.

## Methods

Between March 2020 and April 2021, 500 patients who were treated by primary PCI for STEMI who were deemed low risk for early major adverse cardiovascular events (MACE) were selected for inclusion in the pathway (Fig 1)

## Inclusion Criteria

Successful Primary PCI, left ventricular ejection fraction (LVEF) >40%, no recurrence of ischaemic symptoms, absence of heart failure or haemodynamic instability, suitable social circumstances and mobile.

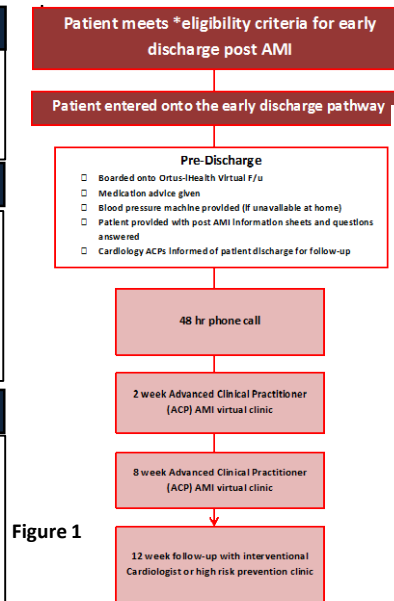


Figure 1

## Results

- Median length of stay for patients on the EHD was 27.5 hours (IQR 24.5 - 32.3) with a minimum of 17 and a maximum of 40 hours (Figure 2).
- Reduced Length of Stay post Pathway (Figure 3)
- Safe: 2 deaths (0.5%), both due to COVID-19 (both >30 days after d/c) with 0% cardiovascular mortality (Figure 4)
- No nosocomial COVID-19 infection
- Patient feedback showed 85% were 'satisfied'/'very satisfied'
- 100% of patients were followed-up (31% DNA before pathway)

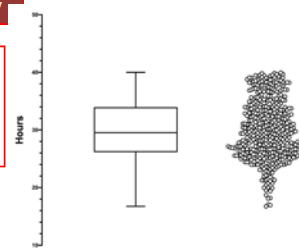


Figure 2

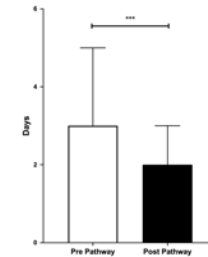


Figure 3

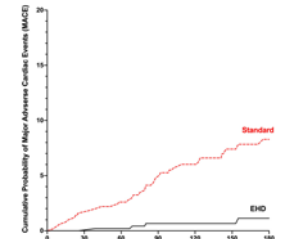


Figure 4

## Conclusions

This project shows the safe and successful implementation of an early post MI discharge pathway with an integrated and structural MDT virtual follow up schedule. This has shortened hospital admission times, optimised resource utilization, while at the same time enhancing the quality of post discharge care