

# Effectiveness of AMI Patient Care in Pre-hospital Settings by Using Medical Priority Dispatch System

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## Introduction

Suzhou first aid center began to use the MPDS system in January 1, 2011.

The Suzhou emergency center in visits transport of 641 cases of acute myocardial infarction in patients with treatment of retrospective analysis, aims to explore the medical priority dispatch system in acute myocardial infarction patients with pre hospital treatment of advantage.

## Materials and Methods

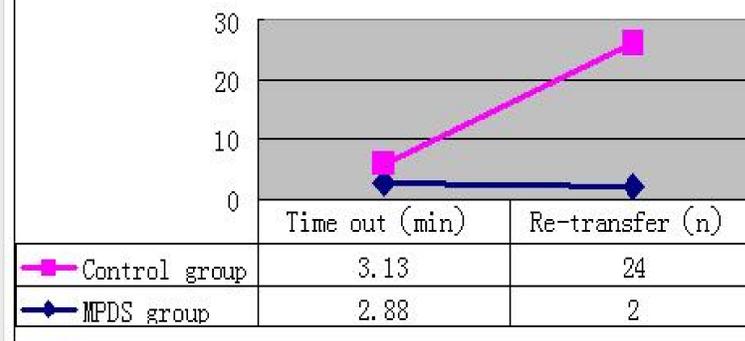
641 AMI patients, who Suzhou Emergency Center had been involved in their pre-hospital treatment and transportation from January 2008 to January 2014 were picked out as the objective to study. These patients were divided into MPDS Group (389 cases, after Suzhou Emergency Center implemented MPDS), and Comparison Group (252 cases, before MPDS was implemented). The study compared the timeliness of ambulance on the run, re-transfer rate, door-to-balloon time, FMC time, etc.



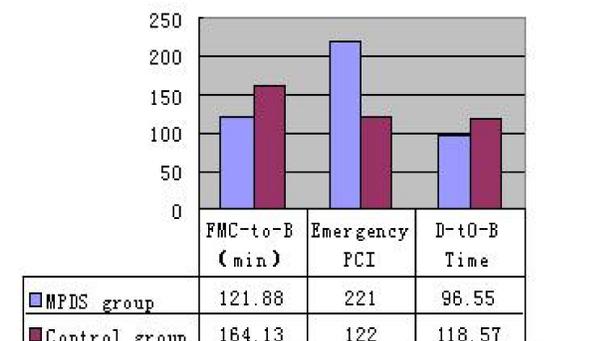
	MPDS group (389)	Control group (252)	P value
Age ( $\bar{x} \pm s$ , year)	62.35 $\pm$ 7.61	60.44 $\pm$ 6.52	>0.05
Male/Female	212/77	157/95	>0.05
SBP ( $\bar{x} \pm s$ mmHg)	133.36 $\pm$ 12.97	134.29 $\pm$ 14.73	>0.05
DBP ( $\bar{x} \pm s$ mmHg)	86.64 $\pm$ 5.43	83.86 $\pm$ 12.68	>0.05
Chest pain 6H (n)	208	142	>0.05
Chest pain 12H (n)	52	29	>0.05

In the treatment of 641 cases, there were no significant differences in gender, age, and other aspects. the number of PCI cases in the MPDS group was 56.81%, and the control group was 48.41%, and the MPDS group was better than the control group in the PCI group.

Comparison of two groups of patients with treatment



Comparison of two groups of patients with treatment



## Results

The average D-TO-B time in PCI operations for MPDS Group is 96.55  $\pm$  9.42 min, while that for the Comparison Group is 118.57  $\pm$  10.54 min. Moreover, the average FMC time for MPDS Group is 121.88  $\pm$  11.42 min, while that for the Comparison Group is 164.13  $\pm$  19.55 min (P < 0.01), which is obviously statistically significant. 2 re-transfer cases of MPDS Group, comparing 24 re-transfer cases in Comparison Group, with P < 0.01, is also statistically significant.



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## Discussion

The average D-TO-B time in PCI operations for MPDS Group is 96.55  $\pm$  9.42 min, while that for the Comparison Group is 118.57  $\pm$  10.54 min (P < 0.01)

Moreover, the average FMC time for MPDS Group is 121.88  $\pm$  11.42 min, while that for the Comparison Group is 164.13  $\pm$  19.55 min (P < 0.01).

Which is obviously statistically significant. 2 re-transfer cases of MPDS Group, comparing 24 re-transfer cases in Comparison Group, with P < 0.01, is also statistically significant.

## Conclusion

By providing pre-hospital care to AMI patients with MPDS, it can apparently reduce the time of patient care, and improve patients outcome.

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