

Improving care for the transferred STEMI patient by reducing transfer to balloon time

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Data Abstractor

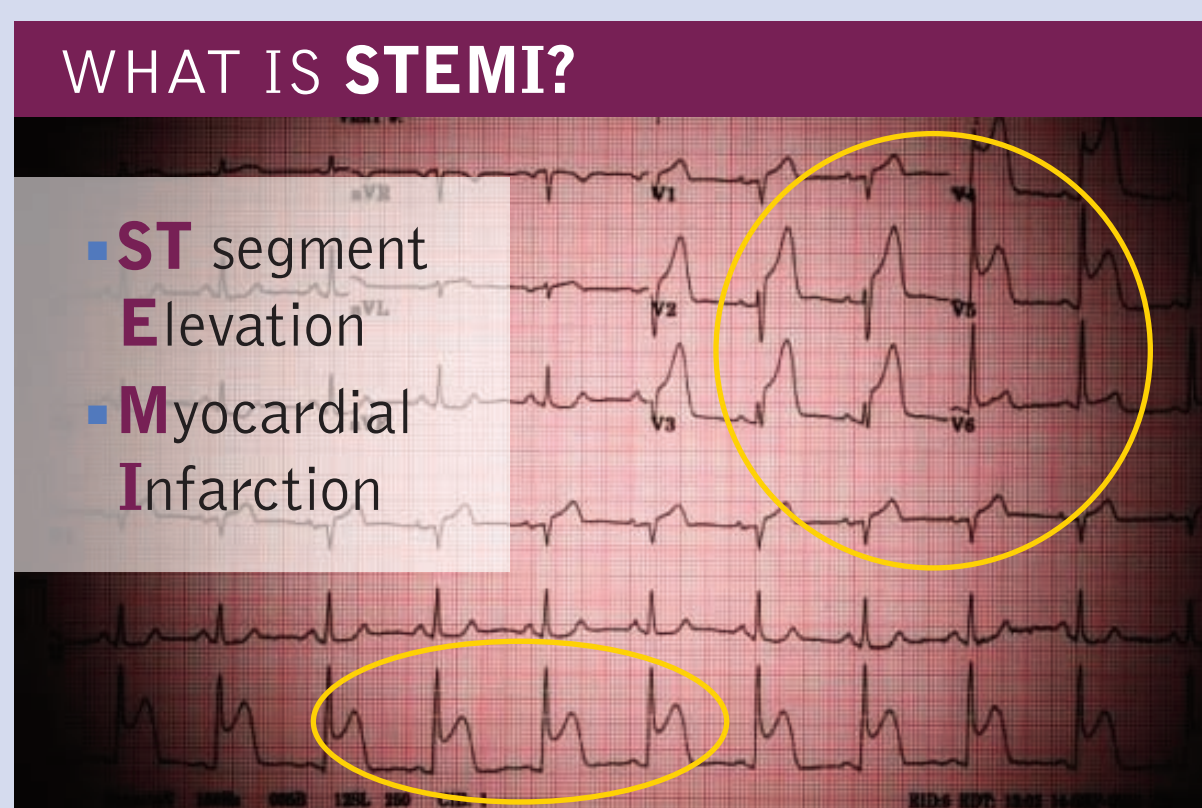
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ABSTRACT

After success with our in house Door to Balloon [D2B] times, our hospital wanted to improve our Transfer to Balloon [T2B] time. In 2009 a local community hospital (renamed Lansdale Hospital) was purchased and became part of our health care system. In our regular PCI infarct meetings it was noted that from the time the patient arrived at Lansdale Hospital's Emergency Room until balloon at Abington Memorial Hospital was averaging 190 minutes. To significantly improve the care for the patient being transferred to our primary PCI center out team worked to engage the emergency room physicians, staff and managers, as well as the cardiologists at Lansdale Hospital.

GOALS

- To improve longterm outcomes of the STEMI patient while maintaining patient safety by expediting the process.
- To identify the patient, rapid notification and acceptance of receiving hospital, and transportation of STEMI patient, to ensure a 90-minute D2B time.



PROBLEMS

- STEMI patients in the Emergency Room [ER] waited to be seen by the cardiologist before a decision to transfer was made.
- A helicopter landing zone that was across the street from the hospital. This requires transport from the ER to the helicopter by a transport ambulance service for the patient to be flown to our facility.
- Transfer process was confusing, depending on time of day a different process was in place to gain acceptance for the transfer to be sent.

IT'S A TEAM EFFORT



- EMS Liaison
- Cardiologist
- Emergency Room Physician
- Cath Lab Manager
- Cath Lab Staff
- Transferring Facility ER Representative

METHOD

- Pre-hospital notification**
We have worked with the EMS services to increase the ability to receive early notification of a STEMI patient. Our hospital has the ability to receive EKG transmission from the local EMS services. We have also hosted an educational lecture to increase the paramedics' ability to recognize a STEMI EKG.
- Decision to transfer**
Emergency Room physicians at Lansdale were enabled to activate the transfer system as soon as a STEMI patient was identified at their facility.
- Create a ONE CALL transfer process**



Created a process that enables the emergency room physician to activate the PCI transfer without cardiology consult at their hospital, and patient is automatically accepted by our interventional cardiologist.

One Call Transfer line: Transfer liaison conference calls with the emergency physician and accepting interventional cardiologist (acceptance confirmed on first call)

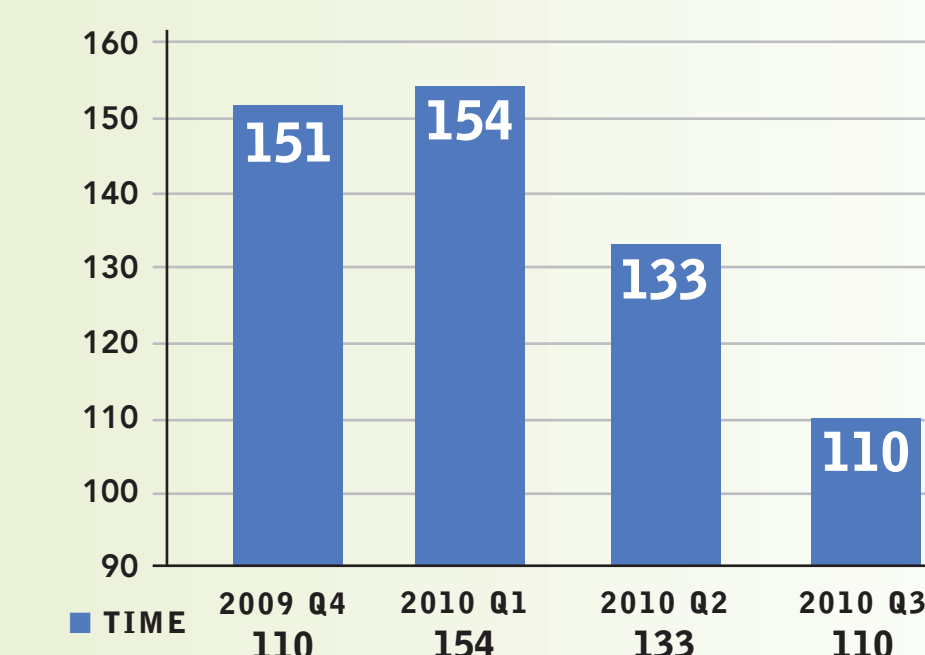
Simultaneous activation of ambulance service for transport to helipad, EMS helicopter and cardiac cath lab team.

- Customize our data collection tool and communicate via email the completed tool within 24-48 hours**
Staff completes worksheet during the procedure, the next day the door to balloon tracking tool is completed.

E-mail to emergency room manager and physician, cath lab manager and interventional cardiologists and center for safety and quality

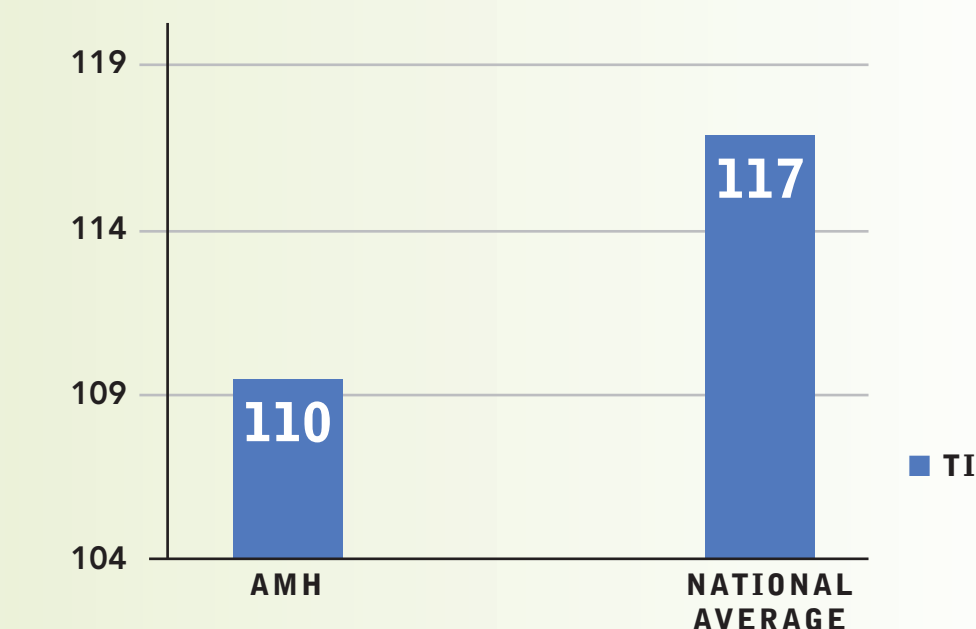
- Identify when time intervals were exceeded and request follow up**
Physician, staff and quality improvement staff review and address issues as close to real time as possible
- Monthly PCI Meetings**
Collaborative team that includes: EMS liaison, chair, Dept. of Medicine, ER physician and manager, interventional cardiologist, Cath Lab manager, Cath Lab staff representative, Lansdale ER manager, ACC data manager, quality service staff, chief of staff, Critical Care nurse representative

DOOR TO BALLOON TRANSFER TIMES FOR STEMI PCI



Door time from receiving facility to balloon time was decreased by more than 40 minutes in one years time
ACC-NCDR PCI™ Outcomes Report

REDUCED BELOW NATIONAL AVERAGE 2010 Q3



Transfer to balloon time was reduced from 117 minutes to 110 minutes, a 7 minute reduction below the national average for 2010 Q3
ACC-NCDR PCI™ Outcomes Report

CONCLUSION

Our hospital successfully reduced the transfer to balloon time for the STEMI patient by 42 minutes. In comparison to other hospitals based on NCDR- PCI data for 2010 Q3 we reduced our time to 110 minutes which is 7 minutes less than the national average of 117 minutes. We have everyone engaged in the process, and by coordinating efforts have been able to provide safe and expedient care for the critically ill STEMI patient.

STAFF WORKSHEET

The staff worksheet is used to help collect time intervals throughout the case and heighten consciousness of time delays.

FUTURE GOALS

- To reduce this time even further to meet the 90-minute door to balloon time.
- Develop contingency plans for when weather may prevent helicopter transport.
- Increase the knowledge of all parties involved through ongoing education and timely feedback.

THE POWER TO HEAL

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DATA COLLECTION TOOL

This is a sample of the data collection tool that is e-mailed to the whole PCI team usually within 24 hours of the lab visit. This allows any questions about the times to be addressed quickly. It is also then further reviewed at our monthly team PCI Meetings. We look at what went well and what areas of the process can be improved to decrease transfer time while still maintain patient safety.

	DATE	TIME (military)	Minutes from Hospital Arrival Time	Maximum Time Interval from Arrival
Patient name	Doe, John			
MR#	000000			
Time of Hospital Arrival	LDH	Sun. 09-26-10	21:15	0min
Mode of Arrival	EMS			
Triage Time		21:15		
Time Seen by ER Physician		21:18		
Time of first patient contact	Dr Smart			
Time EKG order				
Time of 1st EKG (closest to hospital arrival time)		21:16	1 min	5-10 minutes
EKG Components Met (yes/no)		YES		
Physician Interpretation		YES		
Status ACUTE MI		YES		
Status STEMI		YES		
Status LBBB				
Physician Signature		YES		
Time Cardiologist Called				
Time Cardiologist Responded				
Decision Time - PCI		21:17		
Interventionalist Called		21:18	3 min	15min
Interventionalist Responded		21:20	5 min	
Time Interventionalist Arrived		21:20		15min
Cath Lab Team Called		21:20		immed after call
Cath Lab Team Responded		21:20		within 45min
Time Cath Lab Team Arrived		21:55	40 min	
Cath Procedure				
Time Patient arrived in Cath Lab	AMH	22:25	70 min	<55min
Cath Procedure Started		22:38	83 min	<70min
Procedure End Time		22:53	98 min	<90minutes
TOTAL MINUTES FROM HOSPITAL ARRIVAL TO BALLOON TIME			98 min	
Hosp USA to Tx 40mins Tx time 30min			AMH-DTB 28 mins	98 min
			AMH-DTB 28 mins	91:28 = 98 mins