

2016 Level One Heart Attack Program Outcome Report

VOLUME 10 | NUMBER 1 | 2017

Level One Heart Attack Program interventional therapies are available 24 hours a day, 365 days a year.

INNOVATIVE LEVEL ONE HEART ATTACK PROGRAM: NO PATIENT EXCLUDED FROM TREATMENT*

Since implementing the Level One Heart Attack Program in March 2003, Minneapolis Heart Institute® at Abbott Northwestern Hospital has treated 5,292 patients with Level One STEMI. This program, which was the first of its kind in the United States to coordinate community emergency departments

with trained emergency transportation professionals and an expert angioplasty team, is available 24/7. When compared to benchmarks, the Level One program shows a significant reduction in mortality rates.

*No patients excluded based on age, cardiogenic shock, cardiac arrest, comorbidity, etc.

LEVEL ONE HEART ATTACK OUTCOME REPORT – MARCH 1, 2003 THROUGH DECEMBER 31, 2016

STEMIs		Mortality at 30 days/1 year⁵	
Total¹	5,292	Zone 1	6.1%/8.7%
Zone 1 ²	2337	Zone 2	6.2%/9.7%
Zone 2 ³	1442	ANW	7.3%/10.6%
Abbott Northwestern ED ⁴	1513	Overall mortality	6.5%/9.5%
Male/Female	71%/29%	Stroke at 30 days	1.0%
Average Age	63.1	Reinfarction at 30 days	1.4%
Anterior MI or LBBB	38.2%	Outcomes with exclusions⁶	
Cardiogenic Shock	11.4%	Mortality at 30 days	0.7%
Pre-PCI cardiac arrest	10.1%		
Transport ground/air	53.9%/46.1%		
Median Elapsed Time			
Zone 1	96 mins		
Zone 2	122 mins		
Abbott Northwestern ED	56 mins		
Cath lab to balloon	15 mins		
Overall Program Outcomes			
In-Hospital Mortality	5.8%		
Median hospital length of stay	2 days		
TIMI major bleeding	2.8%		

- Total number of STEMIs treated at Abbott Northwestern Hospital
- Zone 1: Hospitals 22-60 miles from Abbott Northwestern Hospital. No thrombolytic therapy. Immediate transfer and PCI.
- Zone 2: Hospitals 61-190 miles from Abbott Northwestern Hospital. Half-dose thrombolytic therapy followed by immediate transfer and PCI.
- Patients presenting directly to Abbott Northwestern Hospital or who were already admitted
- Excludes patients with cardiac arrest, cardiogenic shock, age ≥80, or non-cardiac related death; (n=3565 patients remaining)

LEVEL ONE HEART ATTACK OUTCOME REPORT – JANUARY 1, 2016 THROUGH DECEMBER 31, 2016

STEMIs		30 Day Outcomes	
Total¹	374	Overall Mortality	5.4%
Zone 1 ²	153	Zone 1	7.8%
Zone 2 ³	79	Zone 2	3.9%
Abbott Northwestern ⁴	142	ANW	3.8%
Male/Female	71%/29%	Stroke at 30 days	0%
Average Age	63.3	Reinfarction at 30 days	1.6%
Anterior MI or LBBB	37.7%		
Cardiogenic Shock	9.7%		
Pre-PCI cardiac arrest	11.0%		
Transport ground/air	68.5%/31.5%		
Median Elapsed Time			
Zone 1	99 mins		
Zone 2	119 mins		
Abbott Northwestern ED ⁵	46 mins		
Abbott Northwestern EMS Activated ⁶	41 mins		
Abbott Northwestern Non-EMS Activated ⁷	55 mins		
Cath lab to balloon	16 mins		
Overall Program Outcomes			
In-Hospital Mortality	4.9%		
Median hospital length of stay	2.0 days		
TIMI major bleeding	2.7%		

- Total number of STEMIs treated at Abbott Northwestern Hospital
- Zone 1: Hospitals 22-60 miles from Abbott Northwestern Hospital. No thrombolytic therapy. Immediate transfer and PCI.
- Zone 2: Hospitals 61-190 miles from Abbott Northwestern Hospital. Half-dose thrombolytic therapy followed by immediate transfer and PCI.
- Patients presenting directly to Abbott Northwestern Hospital or who were already admitted
- Patients presenting directly to Abbott Northwestern Hospital whose STEMIs by EMS or Self/Family Driven (n=121)
- Patients presenting directly to Abbott Northwestern Hospital via EMS whose STEMIs were activated prior to arrival (n=88)
- Patients presenting directly to Abbott Northwestern Hospital via EMS whose STEMIs were not activated prior to arrival (n=8)

One Call Transfer Center Any patient. Any time. **612-863-3911** | Fax 1-844-206-0071

Abbott Northwestern's One Call Transfer Center, available 24/7, ensures a streamlined process for transferring and admitting patients for all referring hospitals and physicians. All of Minneapolis Heart Institute®'s protocols and other helpful resources are available 24/7 at mplshheart.com. Contact Mark Ebeling, Manager-CV Emergencies Program at 612-775-3694 with questions about any of Minneapolis Heart Institute®'s emergency protocols.



MINNEAPOLIS
HEART
INSTITUTE

Allina Health
ABBOTT
NORTHWESTERN
HOSPITAL



MINNEAPOLIS
HEART
INSTITUTE

Allina Health
ABBOTT
NORTHWESTERN
HOSPITAL

920 East 28th Street
Minneapolis, MN 55407

LEVEL ONE OVERSIGHT COMMITTEE

Emmanouil Brilakis, MD
Nicholas Burke, MD
Ivan Chavez, MD
Mario Goessl, MD
Timothy Henry, MD

Christopher Kapsner, MD
David Larson, MD
Daniel Lips, MD
Michael Mooney, MD
Wesley Pedersen, MD

Anil Poullose, MD
Scott Sharkey, MD
Paul Sorajja, MD
Jay Traverse, MD
Yale Wang, MD

Beth Cairns, NP
Mark Ebeling, RN
Ross Garberich, MS
John Hibbs, BS
Matt Pavlovec, RN

The Level One Heart Attack Program relies upon a high degree of collaboration between community hospitals, Abbott Northwestern Hospital and the Minneapolis Heart Institute®.

Aitkin – Riverwood Healthcare Center
Alexandria – Douglas County Hospital
Arlington – Sibley Medical Center
Blue Earth – United Hospital District
Brainerd – St. Joseph’s Medical Center
Cambridge – Cambridge Medical Center
Chaska – Two Twelve Medical Center
Crosby – Cuyuna Regional Medical Center
Faribault – District One Hospital
Glencoe – Glencoe Regional Health Services
Grantsburg, WI – Burnett Medical Center
Hutchinson – Hutchinson Medical Center
LeSueur – Minnesota Valley Health Center
Litchfield – Meeker County Memorial Hospital

Minneapolis – Abbott Northwestern Hospital
Mora – FirstLight Health System
Morris – Stevens Community Medical Center
New Prague – Queen of Peace Hospital
New Ulm – New Ulm Medical Center
Northfield – Northfield Hospital
Olivia – RC Hospitals & Clinics
Owatonna – Owatonna Hospital
Plymouth – Abbott Northwestern-WestHealth
Shakopee – St. Francis Medical Center
Sleepy Eye – Sleepy Eye Medical Center
Waconia – Ridgeview Medical Center
Willmar – Rice Memorial Hospital

mplsheart.com