

2011 Level One Heart Attack Program Outcome Report

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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, the Minneapolis Heart Institute® at Abbott Northwestern Hospital has treated 3,435 patients with Level One STEMI using this unique treatment which is the first of its kind in the United States to coordinate community emergency

departments with trained emergency transportation professionals and an expert angioplasty team 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, 2011

STEMIs

Total¹	3,435
Zone 1 ²	1,541
Zone 2 ³	1,041
Abbott Northwestern ED ⁴	853
Male/female	71%/29%
Average age	62.6 years
Anterior MI or LBBB	34.4%
Cardiogenic shock	10.9%
Pre-PCI cardiac arrest	9.0%
Transport	
Ground/air	44%/56%

Median Elapsed Time

Community ED arrival to balloon inflation at Abbott Northwestern	
Zone 1	94 min
Zone 2	122 min
Abbott Northwestern	58 min
Cath lab arrival to balloon inflation, Zone 1 and 2	15 min

Overall Program Outcomes

In-hospital mortality	5.3%
Mortality at 30 days/1 year**	
Zone 1	5.8%/8.5%
Zone 2	6.3%/10.3%
Abbott Northwestern ED	6.0%/10.6%
Overall mortality at 1 year	9.6%
Overall cardiovascular mortality 1 year	7.1%
Stroke rate at 30 days	0.9%
Reinfarction at 30 days	1.1%
Median hospital length of stay	3.0 days
TIMI major bleeding	2.1%
**No significant difference among any groups	

Outcomes with exclusions used by other programs and clinical trials⁵

Mortality at 30 days	0.9%
Mortality at 1 year	2.1%

LEVEL ONE HEART ATTACK OUTCOME REPORT – JANUARY 1, 2011 THROUGH DECEMBER 31, 2011

STEMIs

Total¹	392
Zone 1 ²	169
Zone 2 ³	99
Abbott Northwestern ED ⁴	124
Male/female	67%/33%
Average age	63.5 years
Anterior MI or LBBB	37.4%
Cardiogenic shock	10.8%
Pre-PCI cardiac arrest	9.7%
Transport	
Ground/air	48%/52%

Median Elapsed Time

Community ED arrival to balloon inflation at Abbott Northwestern	
Zone 1	91 min
Zone 2	115 min
Abbott Northwestern	43 min
Abbott Northwestern pre-activated by EMS	34 min
Cath lab arrival to balloon inflation, Zone 1 and 2	15 min

Overall Program Outcomes

In-hospital mortality	6.9%
Mortality at 30 days**	7.70%
Stroke rate at 30 days	0%
Reinfarction at 30 days	0.5%
Median hospital length of stay	3.0 days
TIMI major bleeding	4.6%

Outcomes with exclusions used by other programs and clinical trials⁵

Mortality at 30 days	0.4%
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- Total number of STEMIs treated at 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 entering the Level One Program through Abbott Northwestern's Emergency Department.
- Excludes patients with cardiac arrest, cardiogenic shock, age ≥80, or non-cardiac related death (n=2330 patients remaining for the 2003-2011 data and n=232 patients remaining for the 2011 data)

One Call Transfer Center *Any patient. Any time.*

612-863-3911 | Fax 1-888-764-8218

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 David Hildebrandt, RN, NREMT-P at 612-863-4085 with questions about any of Minneapolis Heart Institute®'s emergency protocols.



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NORTHWESTERN
HOSPITAL

920 East 28th Street
Minneapolis, MN 55407

LEVEL ONE OVERSIGHT COMMITTEE

Nicholas Burke, MD	Daniel Lips, MD	David Hildebrandt, RN, NREMT-P
Tim Henry, MD	Mike Mooney, MD	Robert Tyberg, RN
David Hurrell, MD	Wes Pedersen, MD	Beth Cairns, NP
Christopher Kapsner, MD	Anil Poulouse, MD	Ross Garberich, MS
David Larson, MD	Scott Sharkey, MD	Matthew DeMay, BS



ONLINE VERSION AVAILABLE

Minneapolis Heart Institute's Level One Heart Attack Outcome Report can also be found online at mplsheart.com by clicking on Publications & Research.

The Level One Heart Attack Program relies upon a high degree of collaboration between community hospitals, Abbott Northwestern Hospital and the Minneapolis Heart Institute*. Currently, 30 hospitals and health care facilities participate in the program.

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
Grand Rapids – Grand Itasca Clinic and Hospital
Grantsburg, WI – Burnett Medical Center
Hutchinson – Hutchinson Medical Center
LeSueur – Minnesota Valley Health Center
Litchfield – Meeker County Memorial Hospital

Minneapolis – Abbott Northwestern Hospital
Monticello – New River Medical Center
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
Redwood Falls – Redwood Area Hospital
Shakopee – St. Francis Medical Center
Sleepy Eye – Sleepy Eye Medical Center
Springfield – Springfield Medical Center
St. Peter – River's Edge Hospital and Clinic
Waconia – Ridgeview Medical Center