

LEVEL 1 HEART ATTACK OUTCOME REPORT



Allina Hospitals & Clinics
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Level 1 Heart Attack Program interventional therapies are available 24 hours a day, 365 days a year.

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

The Level One Heart Attack Program has completed six consecutive years of operation. The Minneapolis Heart Institute® at Abbott Northwestern Hospital began this unique treatment program in March 2003, 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. Since its inception, 2,342 patients have been treated through the Level One Heart Attack Program. When compared to benchmarks, the Level One program shows a significant reduction in mortality rates.

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

LEVEL ONE HEART ATTACK OUTCOME REPORT – MARCH 1, 2003 THROUGH DECEMBER 31, 2008

Patients

Total	2,432
Zone1 ¹	1,051
Zone2 ²	772
Abbott Northwestern ED ³	519
Male/Female	72%/28%
Average Age	62.4 years
Anterior MI or LBBB	37.2%
Cardiogenic shock	11.5%
Pre-PCI cardiac arrest	11%
Transport	
Ground/Air	33% / 67%
Median Elapsed Time	
Community ED arrival to balloon inflation at Abbott Northwestern	
Zone 1	94 minutes
Zone 2	123 minutes
Abbott Northwestern ED	63 minutes
Cath lab arrival to balloon inflation, Zone 1 and 2	14 minutes

OVERALL PROGRAM OUTCOMES

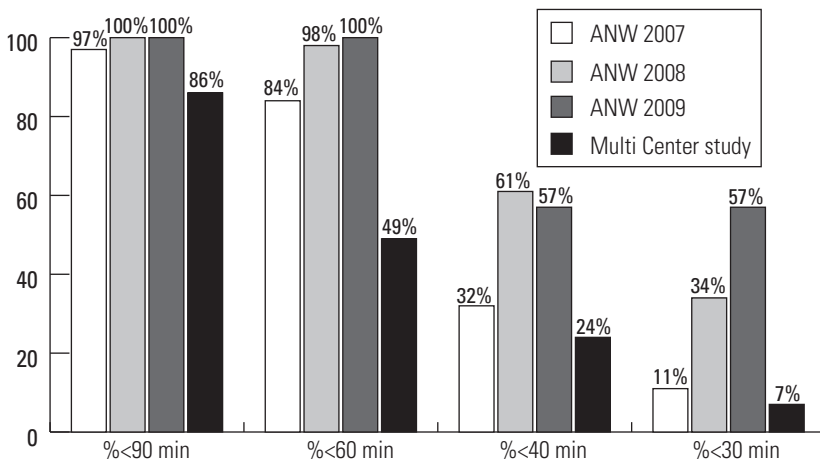
Mortality at 30 days/mortality at 1 year**	
Zone 1	5.2% / 7.4%
Zone 2	6.7% / 9.7%
Abbott Northwestern ED	5.4% / 8.7%
Overall mortality at 1 year	8.4%
Overall cardiovascular mortality at 1 year	6.5%
Stroke rate at 30 days	0.9%
Reinfarction at 30 days	1.4%
Median hospital length of stay	3.0 days
TIMI major bleeding	1.1%
**No significant difference among any groups	

OUTCOMES WITH EXCLUSIONS USED BY OTHER PROGRAMS AND CLINICAL TRIALS⁴

Mortality at 30 days	0.9%
Mortality at 1 year	1.4%

- Zone 1: Hospitals 22-60 miles from Abbott Northwestern Hospital. No thrombolytic therapy. Immediate transfer and stenting.
- Zone 2: Hospitals 61-190 miles from Abbott Northwestern Hospital. Half-dose thrombolytic therapy followed by immediate transfer and stenting.
- Patients entering the Level One Program through Abbott Northwestern Hospital's Emergency Department.
- Excludes patients with cardiac arrest, cardiogenic shock, CABG ≥ 88, or COD that is non-cardiac related.

Yearly Improvement in Abbott Northwestern's Door to Balloon Times with Paramedic Preactivation of the Cardiac Cath Lab 2007-2009



In 2006 we began to study paramedic-initiated pre-hospital cardiac catheterization lab activation for acute STEMI patients presenting to the Abbott Northwestern's Emergency Department. Since then, we have seen a continued decrease in Door-to-Balloon (D2B) times for these patients. In 2008 100 percent of pre-activated patients had D2B times less than 90 minutes, 98 percent were less than 60 minutes, and more than 60 percent were less than 40 minutes. Four different ambulance services have transported patients with D2B times under 24 minutes. These studies underscore the importance of decreasing D2B times for all STEMI patients, and emphasize the importance of partnerships with local EMS providers which greatly affect the care of metro STEMI patients.



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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
 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 – Kanabec Hospital
 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
 Willmar – Rice Memorial Hospital