

Acute myocardial infarction and stroke.

Learning from similarities!

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Background in Sweden



Acute Myocardial Infarction

35 000 annually

Stroke

30 000 annually

Early treatment strategies

AMI **1986 IV thrombolysis 19 / 1 000 treat**
"Golden Hour" **80/ 1 000 treat**

Stroke **1995 IV thrombolysis**

GISSI Lancet 1986 NINDSS NEJM 1995

Pathophysiology



AMI

- Fresh occluding/non occluding thrombus
- Spasm

Stroke

- Infarction (lacunar stroke, embolus, arteriosclerosis large vessel disease)
- Haemorrhage (10%)

Various components of delay



Prehospital and

In-hospital delay

Prehospital delay

Patient's decision time

AMI 60 min

Stroke 60-90 min

Johansson Heart Lung 2004, Chang Stroke 2004

In-hospital delay



AMI

”Time to ECG to initiate fast track”

Prehospital ECG (STEMI-lys/cathlab)

Terkelsen JIM 2002

In-hospital delay



Stroke

CT scan (=Ecg!)

**CT scan to lysis
(stroke unit)**

AMI and Stroke



Activation of the EMS system can function as a facilitator to shorten the inhospital delay (PCI-CT-lysis)

Morrison Acad Emerg Med 2006

Mosley Stroke 2007

Fast track



AMI

**STEMI patients direct to cathlab
Shorten time and improved outcome**

Stroke

**Rapid respons system inhospital and a
prehospital notification system
increased the use of thrombolysis from
6% to 14%**

The use of EMS system

AMI	Europe/Australia >50%	USA <50%
Stroke	12-69%	

Herlitz Am J Emg Med 2006

Prehospital Treatment



AMI **Thrombolysis, nitroglycerin, aspirin, betablocker**

Stroke **? Neuroprotection as part of research**

Morrison JAMA 2000 Saver FAST MAG Stroke 2004