

Rescue PCI:
Who, When, Why, With What Outcome?

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Lake Louise 2008

Outcomes In the 198 Pts with Rescue attempt for failed
fibrinolysis in the Angiographic Cohort of GUSTO 1
(no transfers required)

Median Time, Sx-Lysis	3.1h
Median Time, Lysis-Rescue	145 min
Final TIMI 3	68%
30d Mortality, Rescue success	8.6%
30d Mortality Rescue failure	30.4%

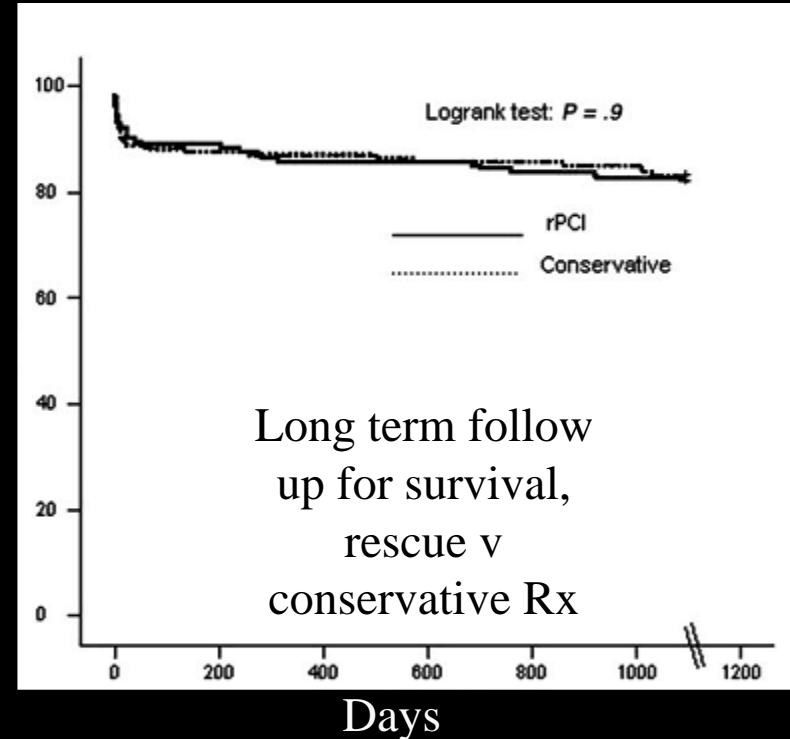
(Best Predictor of Rescue failure and death: cardiogenic shock)

The earliest randomized trials of Rescue, Belinke, the RECUE trial and TAMI had fewer than 100 pts each.

Then came MERLIN and most recently REACT

Merlin: the first randomized rescue trial with at least a modest sample size: **n=307** Sutton et al, JACC 2004

	<u>RESCUE</u>	<u>CONSERVATIVE</u>
Pain-Lysis	180'	170'
Lysis-Rescue	146'	na
Transfusion	17%	1%
Stroke	5%	1%
Reinfarction	7%	10%
CHF	24%	30%



Dx of lytic failure was lack of ST seg resolution at 90 min

Some Inconvenient Truths Concerning the “Positive”

Randomized Rescue Trial REACT: n=427

Conservative Rx vs Repeat Lysis vs Rescue PCI

Time, Pain-first Lytic	145 min	
First Lytic SK	56%	Gershlick A et al. NEJM
SK as Rescue Lytic	58%	2005
Time, Lysis #1-Rescue	4.5 hrs	

The endpoint at 6 months was a combination of death, ReMI, Stroke, and CHF

The only significant difference between the 3 groups was ReMI, 2% with rescue, 9% with the other 2 strategies but that drove the combined endpoint to $p < .01$ and “legitimized” Rescue

There was only a trend favoring Rescue for mortality:

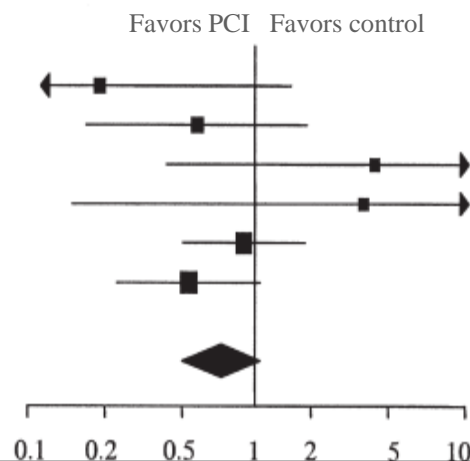
This trial was generally perceived as an endorsement of Rescue

Now 2007 comes a Met-Analysis: RESCUE PCI vs Conservative Management

Mortality

Study	PCI	Control	RR (95% CI)
Belenkie et al.	1/16	4/12	0.19 (0.02-1.47)
RESCUE	4/78	7/73	0.53 (0.16-1.75)
TAMI	3/49	1/59	3.61 (0.39-33.64)
RESCUE II	1/14	0/15	3.20 (0.14-72.62)
MERLIN	15/153	17/154	0.89 (0.46-1.71)
REACT	9/144	18/141	0.49 (0.23-1.05)
Total	33/454 (7.3%)	47/454 (10.4%)	0.69 (0.46-1.05) p=0.09

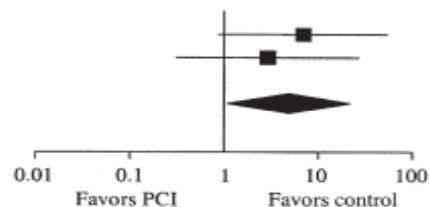
Absolute risk reduction 3% (95% CI 0%-7%)



Stroke

Study	PCI	Control	RR (95% CI)
MERLIN	7/153	1/154	7.05(0.88-56.58)
REACT	3/144	1/141	2.94(0.31-27.90)
Total	10/297 (3.4%)	2/295 (0.7%)	4.98(1.10-22.48) p=0.04

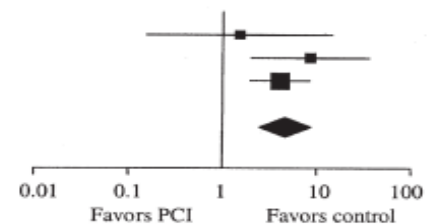
Absolute risk increase 3% (95% CI 0%-5%)
NNH 33
Test for heterogeneity: χ^2 0.32 df 1 (p 0.57) I² 0%



Minor Bleeding

Study	PCI	Control	RR (95% CI)
Belenkie et al.	2/16	1/12	1.50(0.15-14.68)
MERLIN	17/153	2/154	8.56(2.01-36.40)
REACT	33/144	8/141	4.04(1.93-8.44)
Total	52/313 (16.6%)	11/307 (3.6%)	4.58(2.46-8.55) p<0.001

Absolute risk increase 13% (95% CI 8%-18%)
NNH 8
Test for heterogeneity: χ^2 1.8 df 2 (p 0.42) I² 0%



Rescue PCI is logical, appealing, widely practiced and incorporated into many management algorithms and new clinical trials.

But does it make a big difference?

