



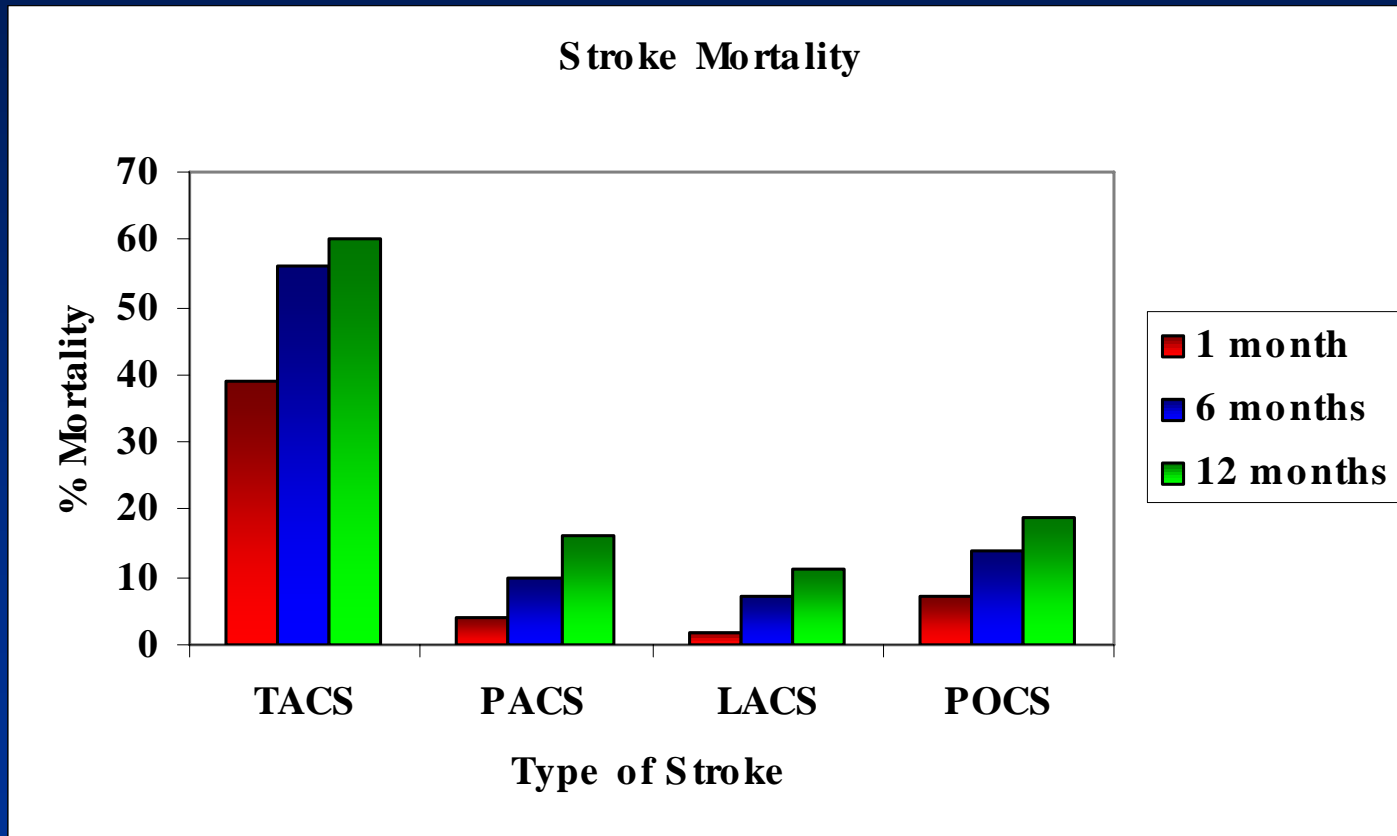
Who Benefits from Organised Stroke Care?

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Background

Outcome is related to stroke clinical subtype



Background

- Advances in organised stroke unit care are associated with improved outcomes
- NICE Guidelines:
 - All patients admitted with suspected stroke should be admitted directly to a stroke unit
- Commissioning performance target:
 - 90% spend 90% time on stroke unit

Aim

- To determine the impact of organised stroke unit care on survival of different clinical subtypes of stroke.

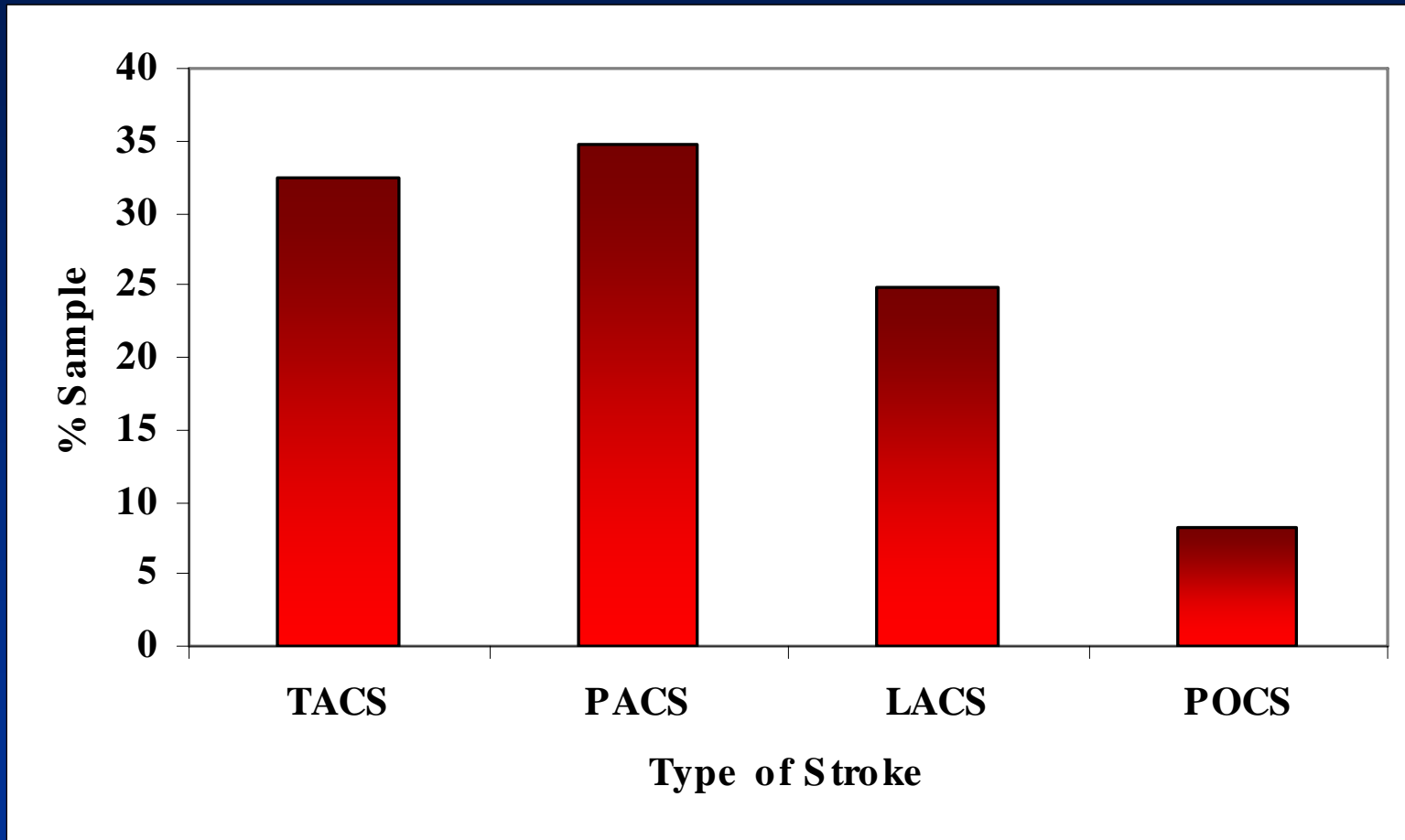
Methods

- Prospective observational cohort study
- Admissions to Sunderland Royal Hospital
- Primary diagnosis of acute stroke
- August 1998- March 2005
- Demographics, clinical diagnosis (OCSP classification) and case fatality at 12 months recorded

Results

- 2734 patients
- Mean age 74 years (24-108)
- 51% female
- Overall case fatality 32% at one year

Distribution by Stroke Type



Patient Demographics

	Stroke Unit	General Ward
Age (mean years)	76.0	74.0
Gender (% male)	50.8	46.3
TIA (%)	14.5	14.1
Stroke (%)	23.6	25.3
HTN (%)	46.0	47.3
DM (%)	14.5	15.8
AF (%)	15.9	11.4
IHD (%)	24.7	24.0
CCF (%)	6.2	5.2

Stroke Type and Outcome

(n = 2734)

	TACS	Non TACS
Number of patients (%)	884 (32.3)	1850 (67.7)
Managed on stroke unit (%)	487 (55.1)	1119 (60.5)
1 year case fatality (%)	535 (60.5)	348 (18.8)
Death in hospital (% total deaths)	499 (93.3)	242 (69.5)

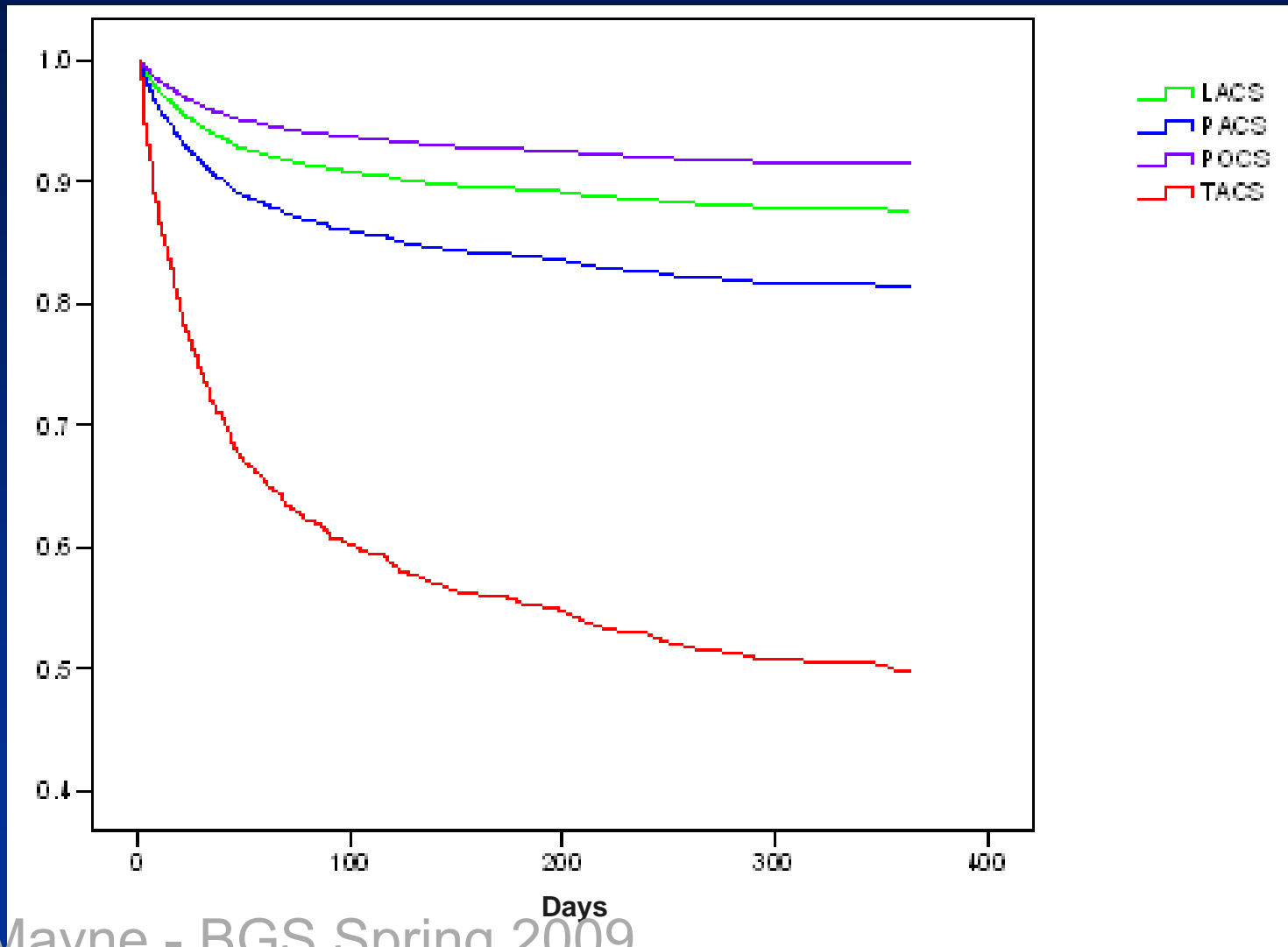
Independent Predictors (Cox Regression)

Variable	P-value	Exp(B)	95% CI for Exp(B)	
			Lower	Upper
Stroke Unit	0.08	0.87	0.75	1.01
Age	<0.001	1.05	1.04	1.06
HTN	0.037	0.85	0.73	0.99
AF	<0.001	1.64	1.38	1.96
CCF	0.003	1.49	1.15	1.93
Cholesterol	0.071	0.78	0.59	1.02
TACS	<0.001	4.15	3.55	4.85

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Survival and Clinical Subtype

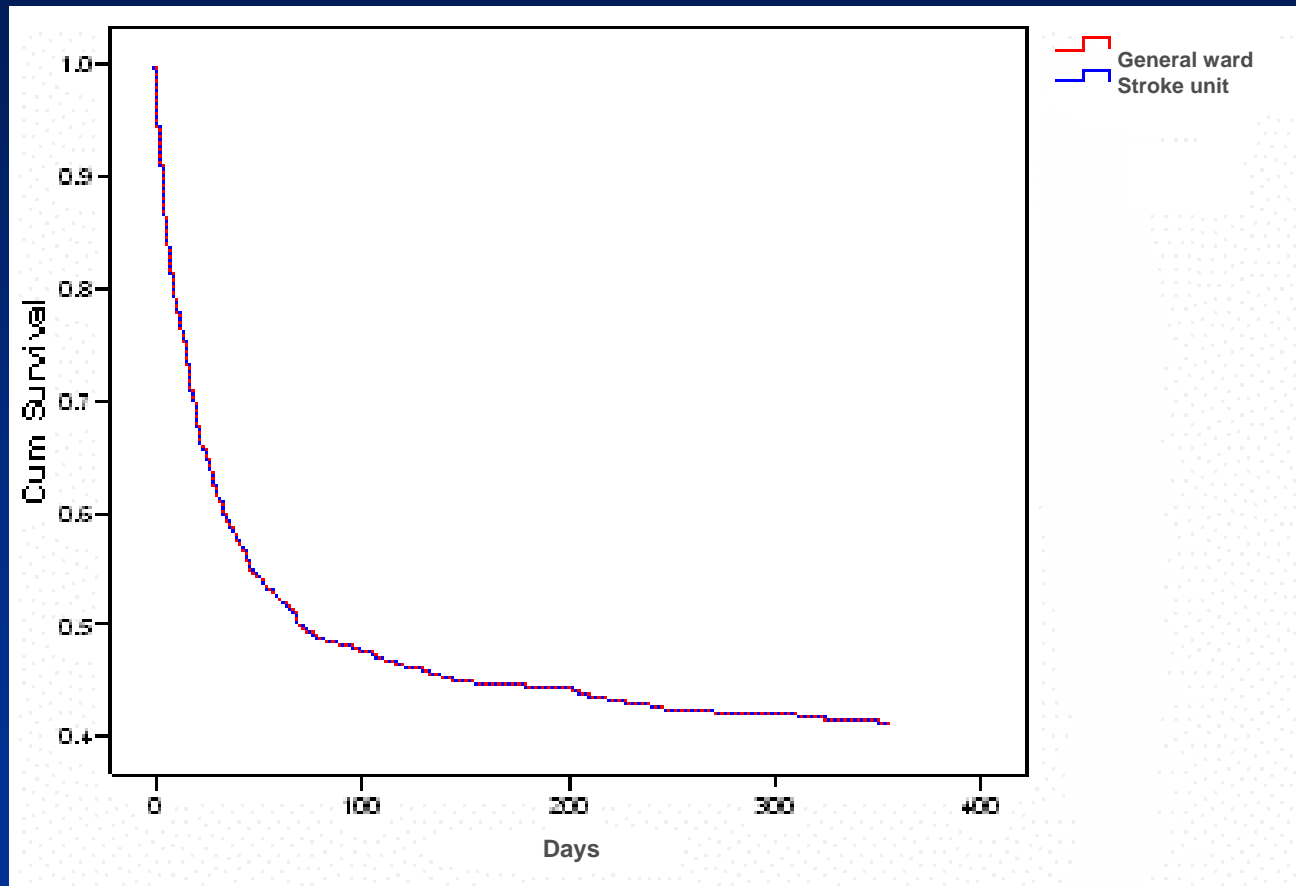


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Cox regression (adjusted)

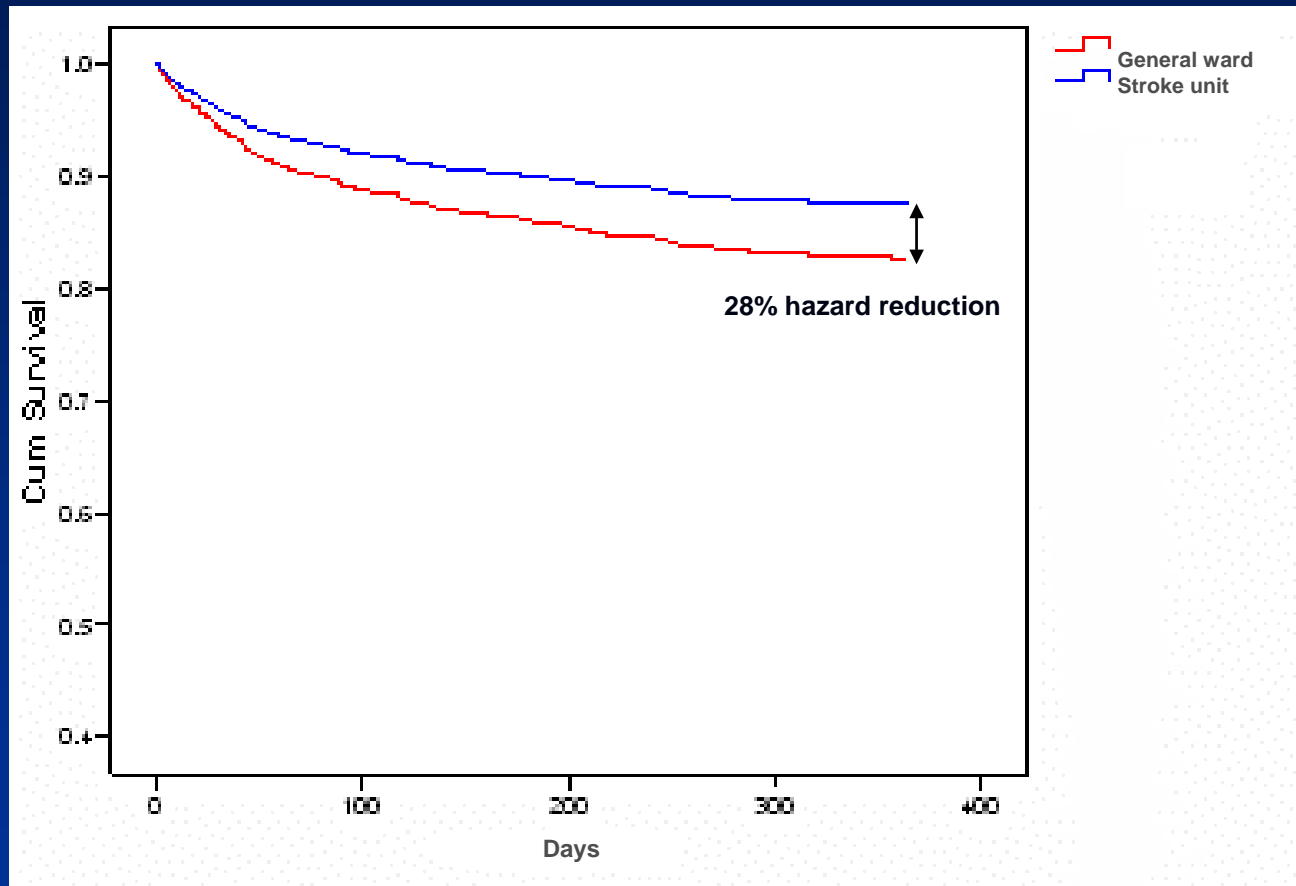
Stroke Unit Care and Survival

TACS Survival (p=0.98)

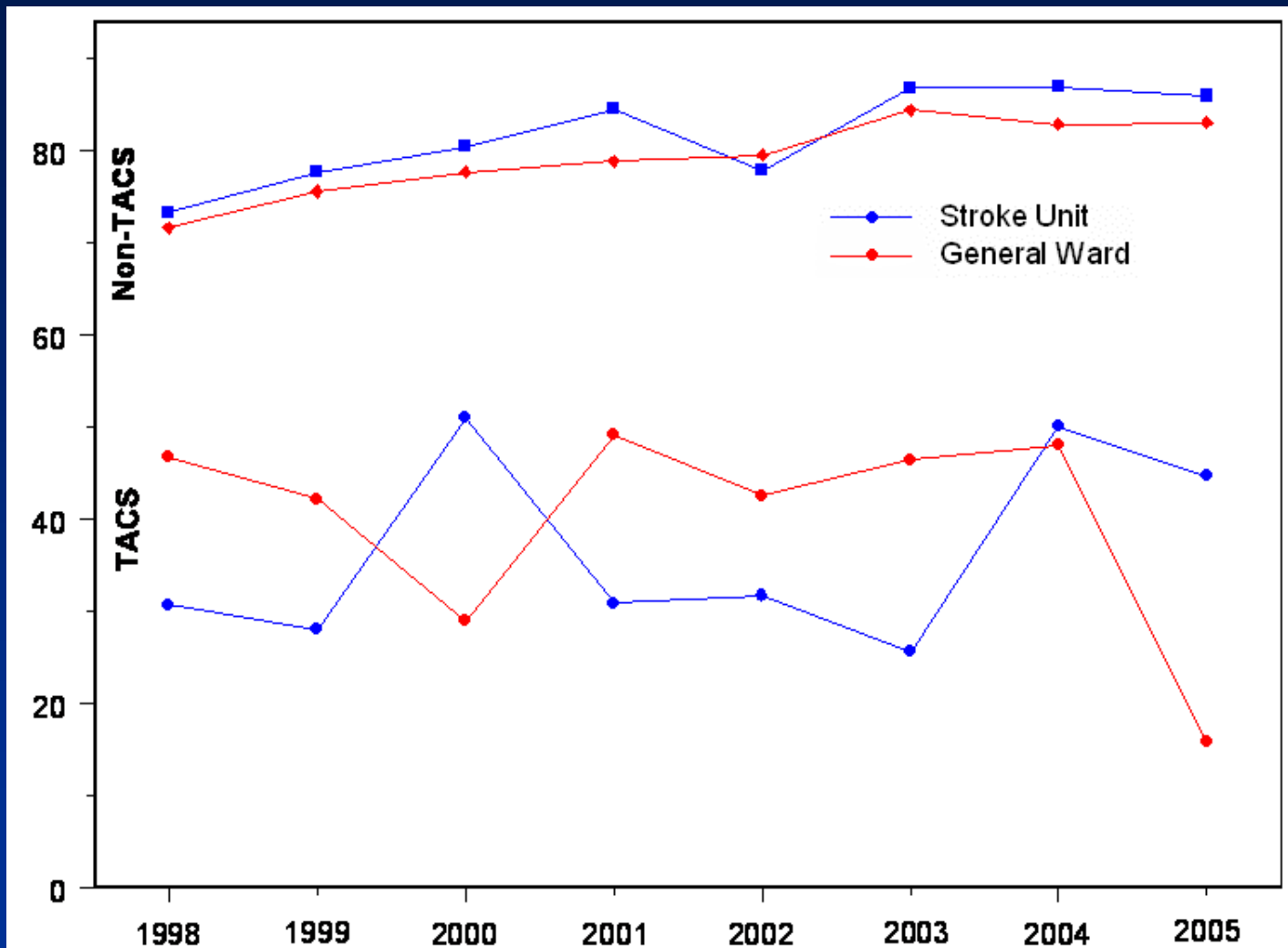


Stroke Unit Care and Survival

Non TACS Survival (p=0.005)

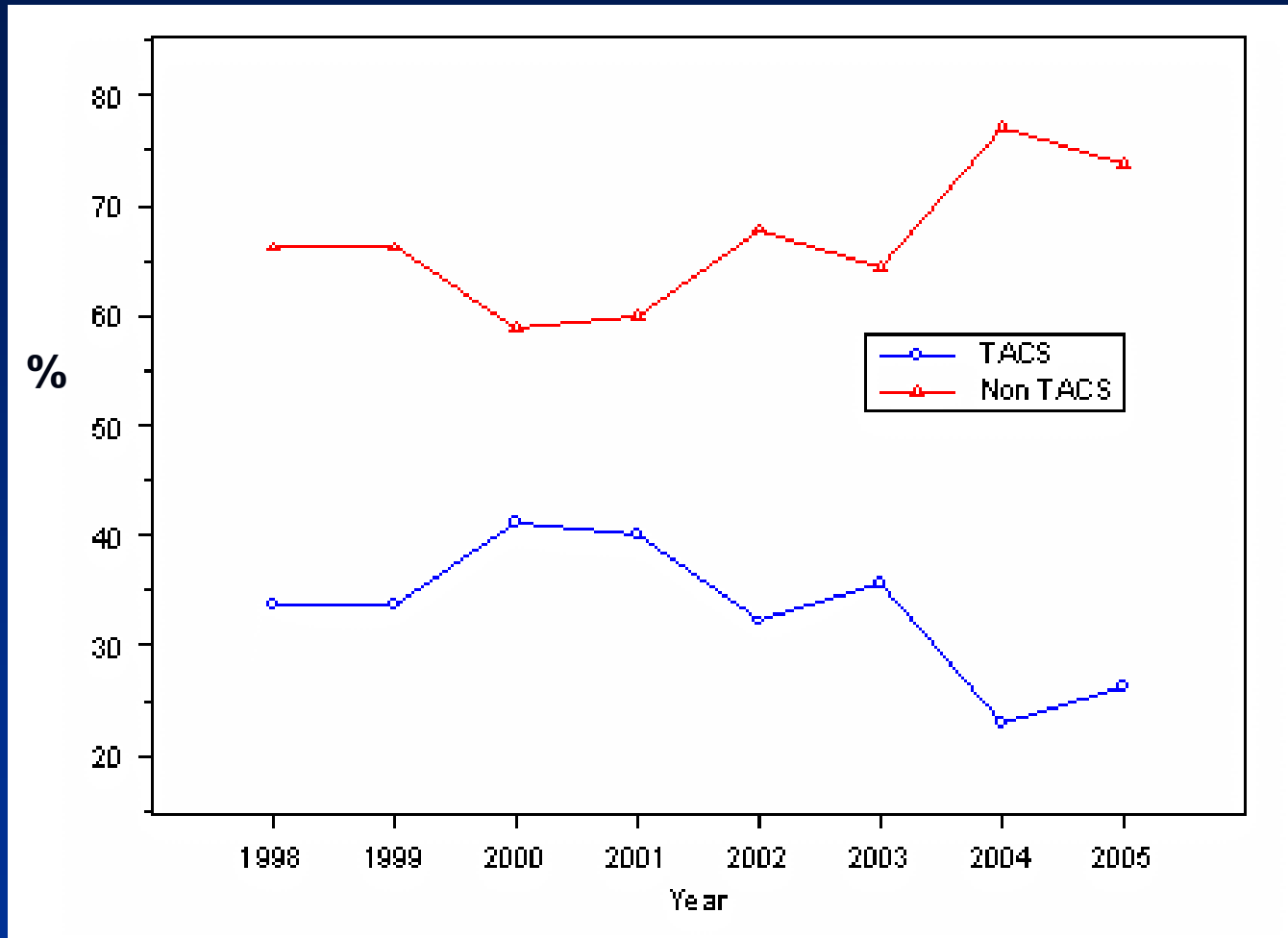


Survival 1998-2005



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Stroke unit → Acute & rehab unit → Expanded ASU → Stroke outreach

Stroke Subtype Admissions 1998-2005



Conclusions

- Stroke unit care was not associated with improved mortality in those who present with the most severe clinical stroke syndromes (TACS).
- Non TACS patients had significant survival benefit with stroke unit care.
- This mortality benefit was comparable to that observed in clinical trials.

Discussion

- Are occupancy targets appropriate?
- Stroke units confer benefit through a range of multidisciplinary interventions.
- Wide spectrum of patients with range of outcomes and treatment goals.
- Should stroke unit resources be targeted to those with most to gain?

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