

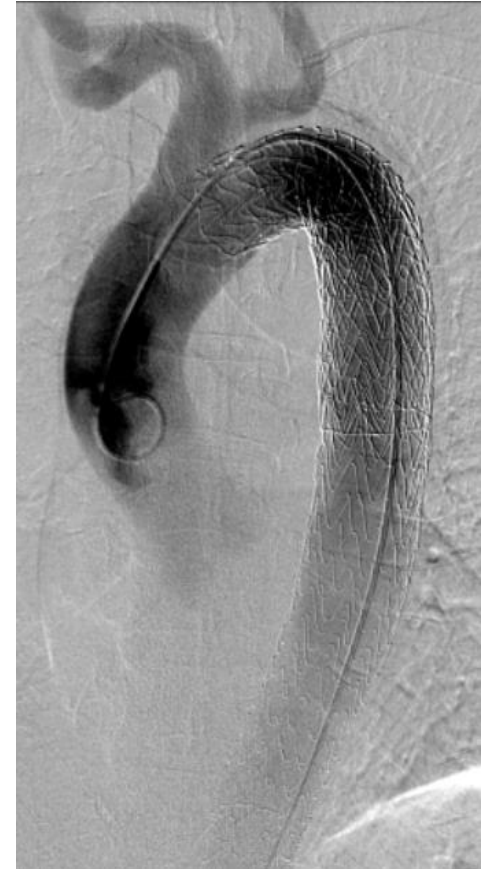
Lessons learned from the TEVAR registries

Ian Loftus
Professor of Vascular Surgery

St Georges Vascular Institute, London, UK

Challenges for TEVR: *Evidence*

- Limited RCT data
- Slow technological advance
- Poorly defined pathways
- Multiple pathologies
- Poor natural history data
- ‘Real world’ trials and registries



Challenges for TEVR: *Evidence*

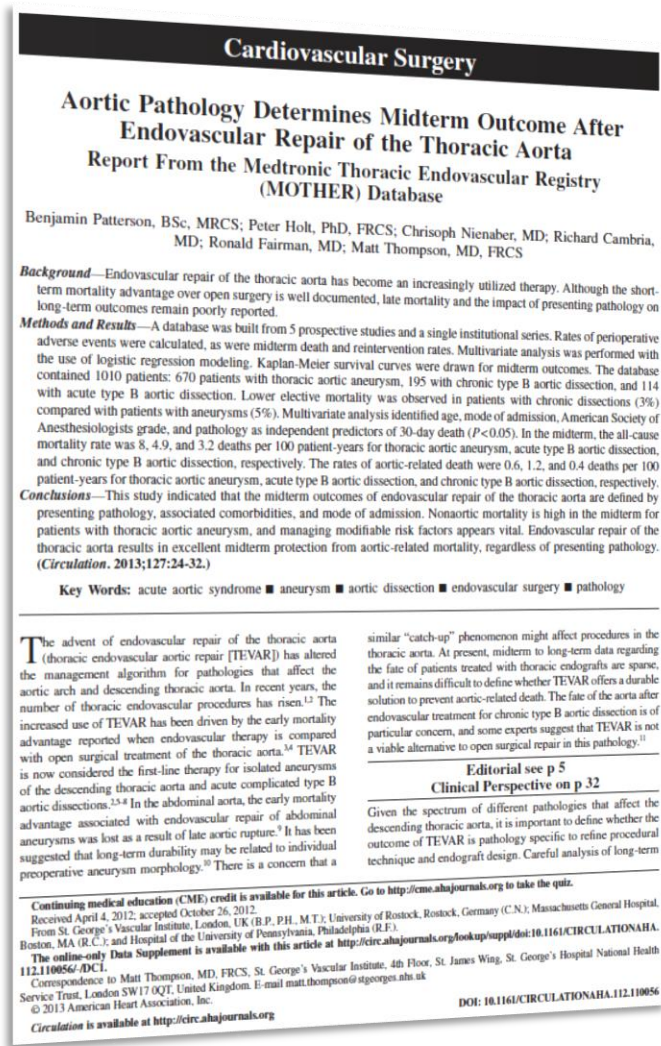
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Registries for TEVR

- Better evidence base for real world clinical practice
 - Allow for sub-group analysis
 - Account for different pathologies
 - Define longer term, disease specific outcomes
- Aid patient selection, management and surveillance

MOTHER Registry



- Registry of >1000 TEVR from 6 trials and 1 institution
- 670 aneurysm
- 195 chronic dissection
- 114 acute dissection

Lessons Learnt from MOTHER

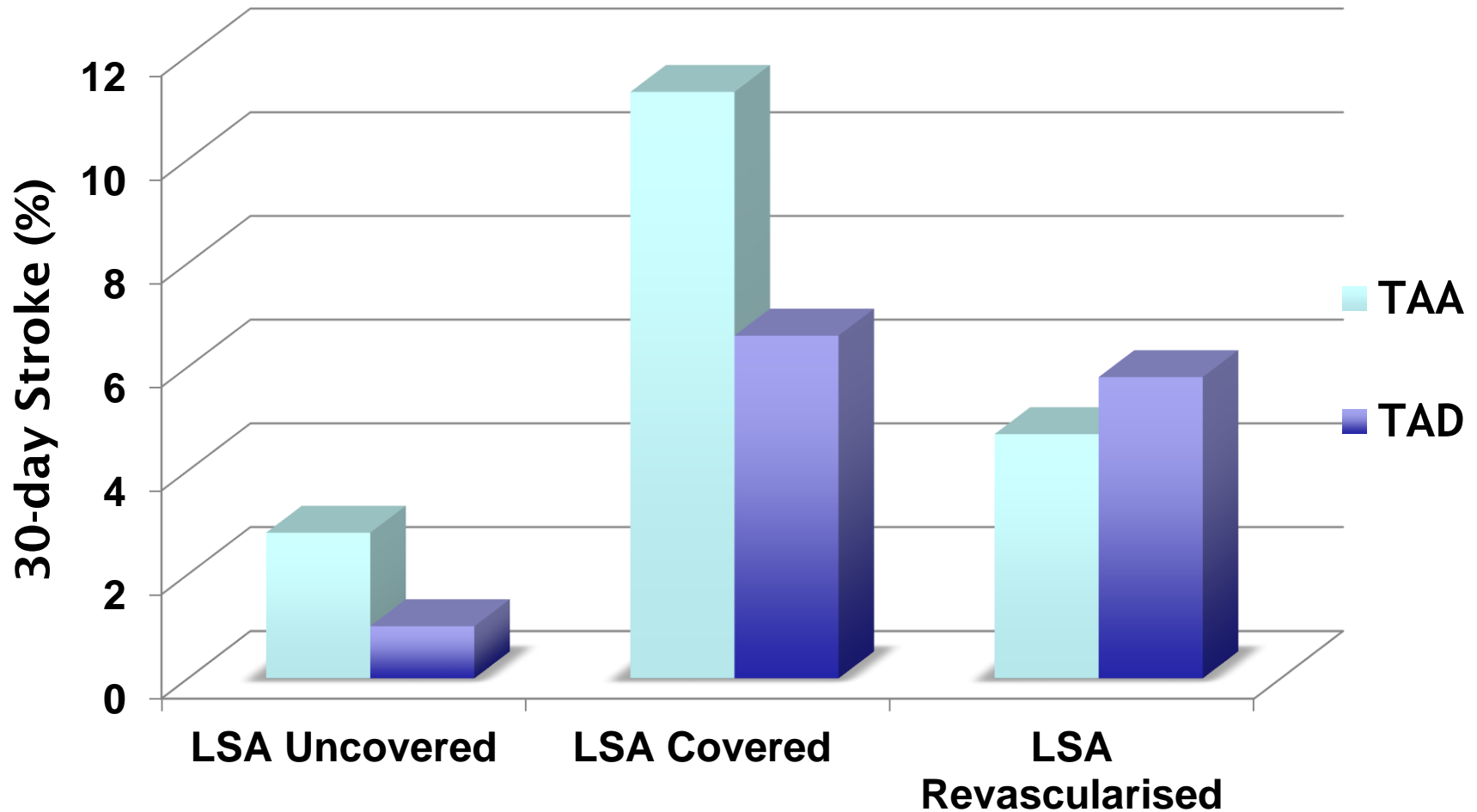
- Technical aspects of TEVR
 - Coverage of LSCA
 - Retrograde TAD
- Predicting outcomes
- Effect of complications on long term outcomes



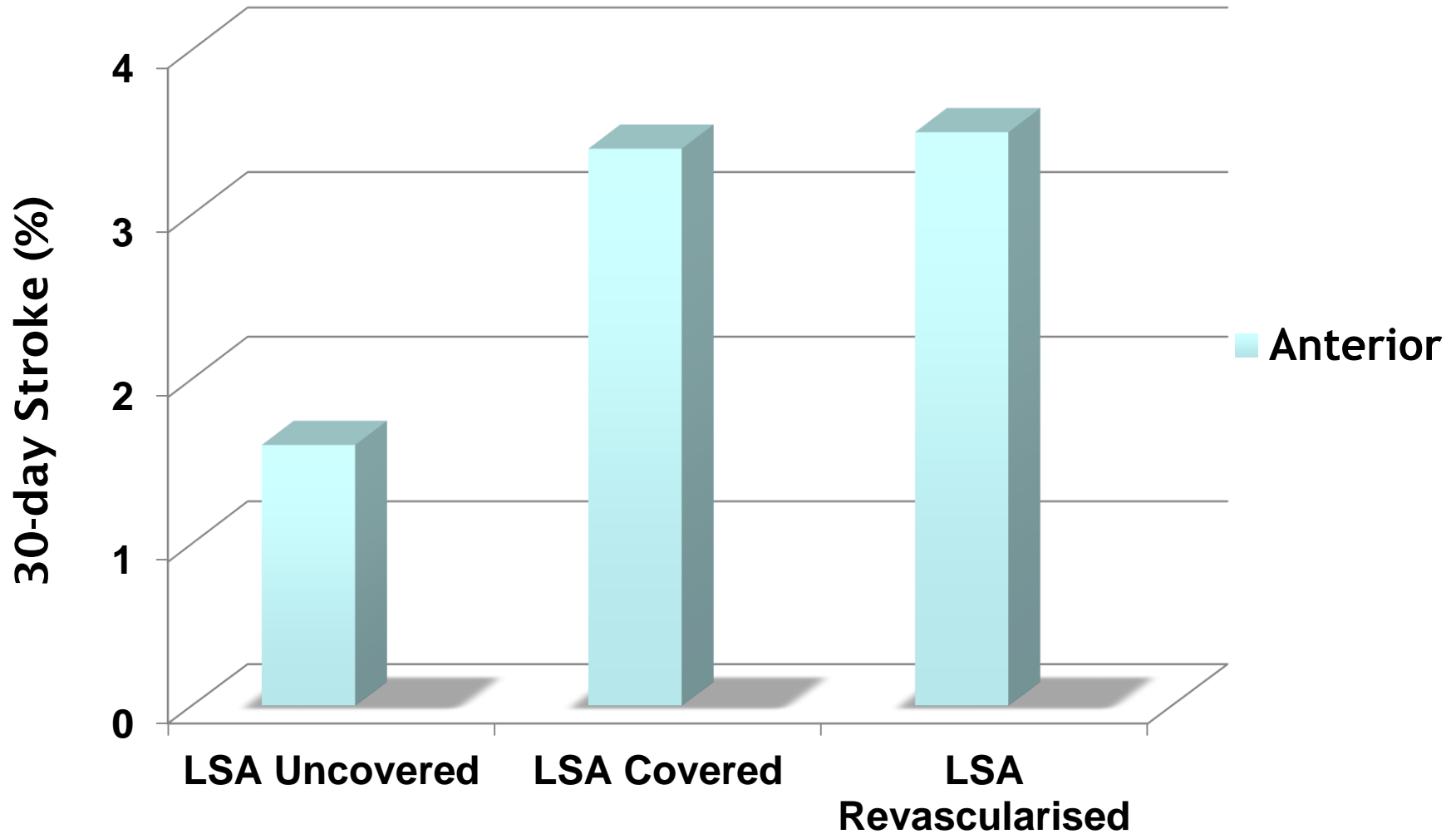
Left Subclavian Bypass

	Not Covered (n=537)	Covered Not revascularised (n=322)	Covered revascularised (n=143)	P - value
Death (%)	31 (5.8)	22 (6.8)	10 (7)	0.769
Stroke (%)	12 (2.2)	29 (9)	7 (4.9)	0.000
SCI (%)	7 (5)	13 (4)	2 (1.4)	0.155

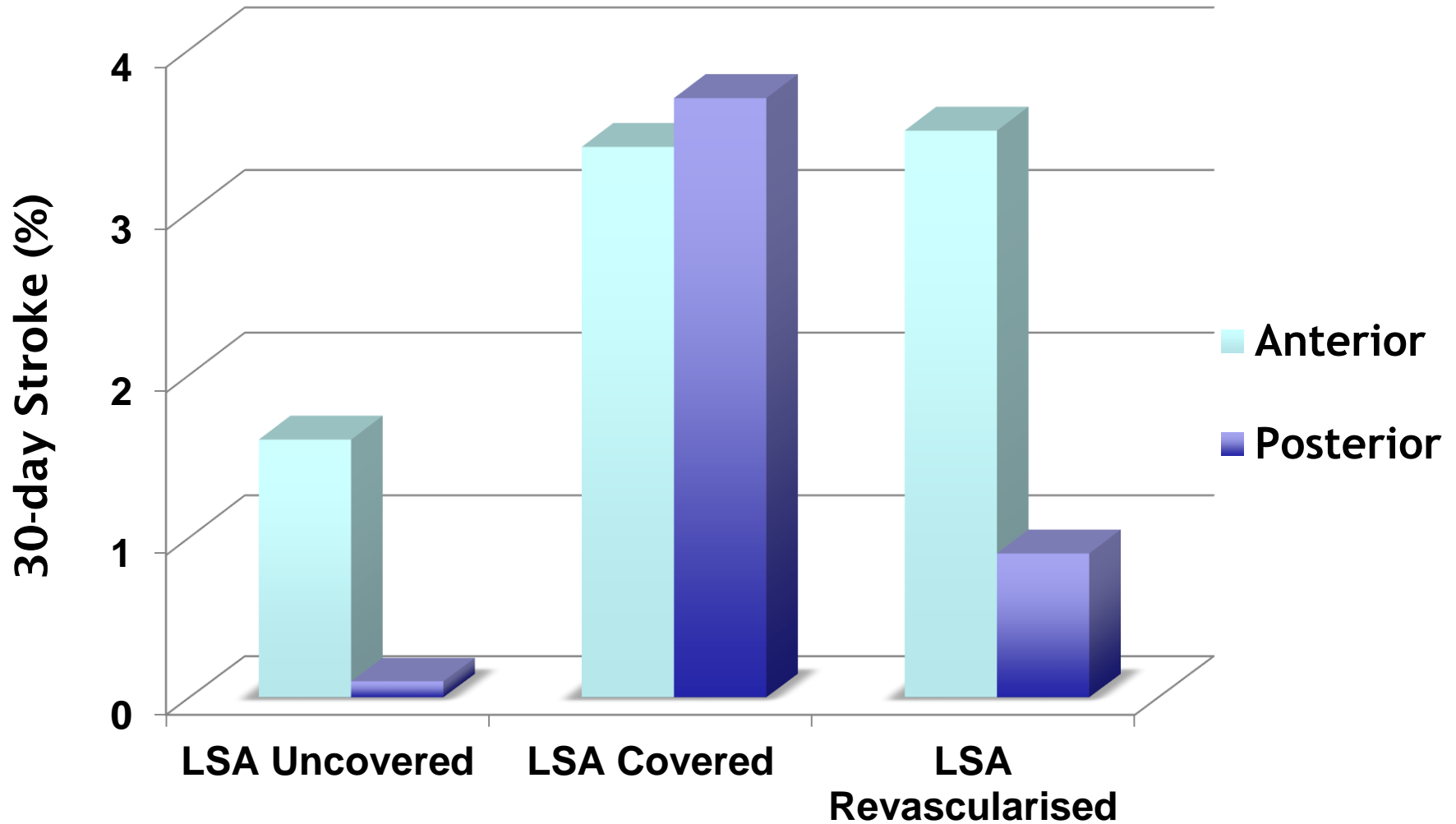
LSCA: *Effect of Pathology*



LSCA: Anterior or Posterior Territory



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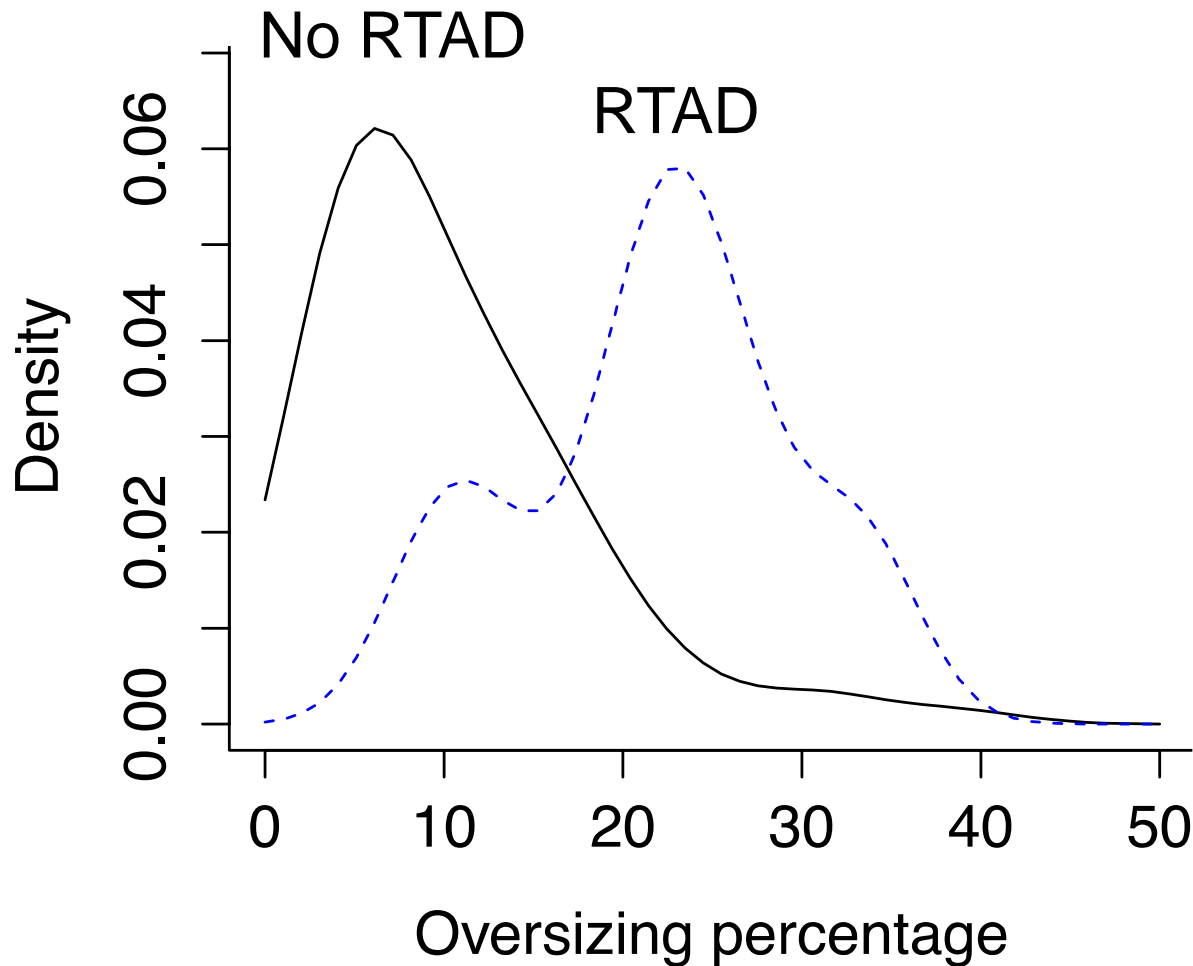
Retrograde Type A Dissection

- Aneurysm: 0.9%
- Acute dissection 8.4%
- Chronic dissection 3%



Canaud et al;Annals Surg 2014

RTAD: *Endograft Oversizing*



- **MOTHER 1.6%**
- **Oversizing: 22 vs. 10.3%**

Predicting Risk: *Aneurysm*

Elective	TAA (n- 625)
Death (%)	33 (5%)
Stroke (%)	34 (5%)
Paraplegia (%)	30 (5%)

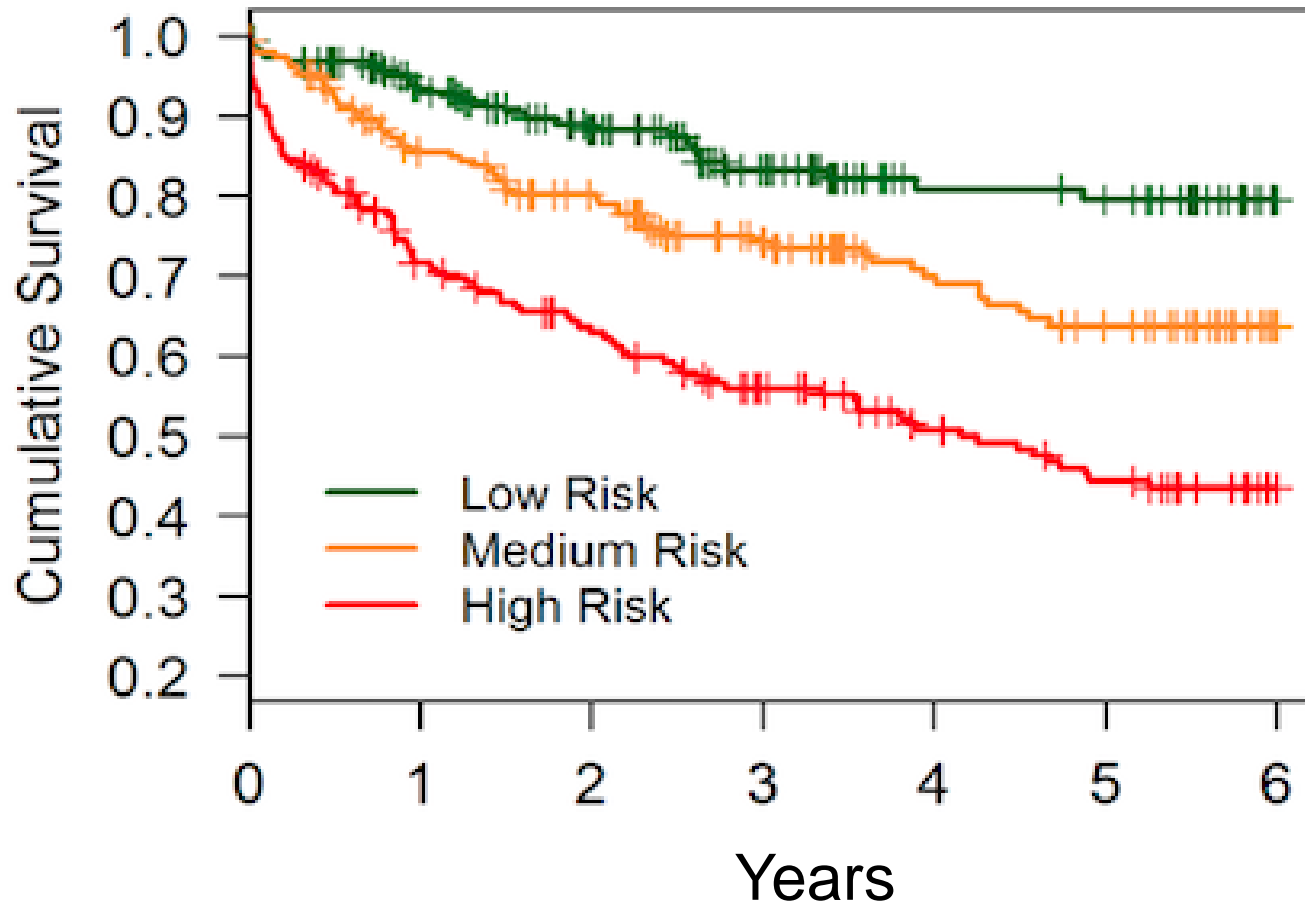
Early Outcomes for TAA: *Odds Ratios*

	Age	Emergency	Number of devices	Smoker	Previous Stroke	LSA bypass
Death (%)	1.07	4.17	1.28			
Paraplegia (%)		4.41	1.3	2.14		
Stroke (%)	2.43		1.63		2.89	3.30

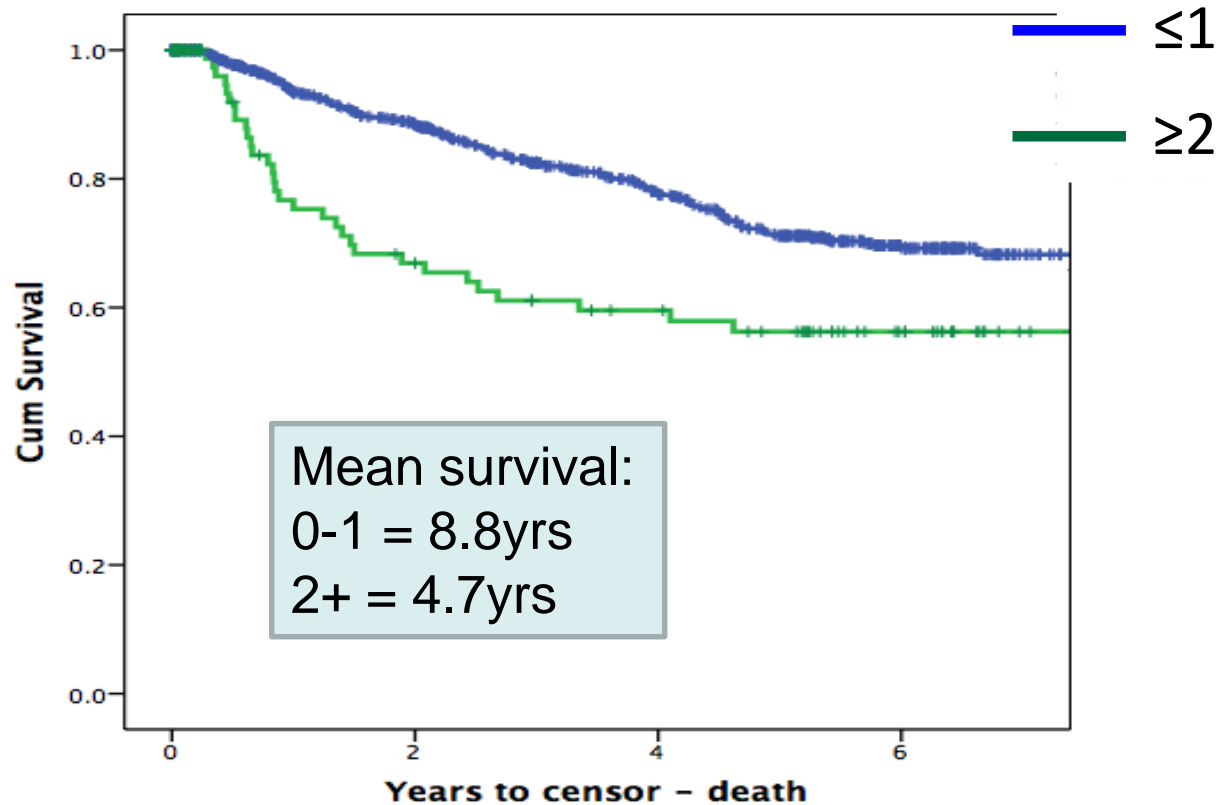
Long Term Mortality: TAA

Variable	Hazard Ratio
Age	1.035
Renal insufficiency	1.664
CVA	1.473
Number of devices	1.183
TAA max diameter	1.015

All Cause Mortality By Risk



All Cause Mortality By Complication



	0	1	2	3	4	5	6	7
0-1	984	741	630	491	400	315	168	43
2+	113	55	47	40	37	32	17	2

Conclusions

- Registries can guide real world clinical practice
- Potential to stratify risk and individualise management decisions
- Complications predict poor long term outcomes
- Optimise patients pre-procedure, and perioperative intensive care to prevent complications