

# TCT AP Seoul 2013

## Surgical AVR Remains the Procedure of Choice for Most AS Patients

**David P Taggart MD PhD FRCS FESC**

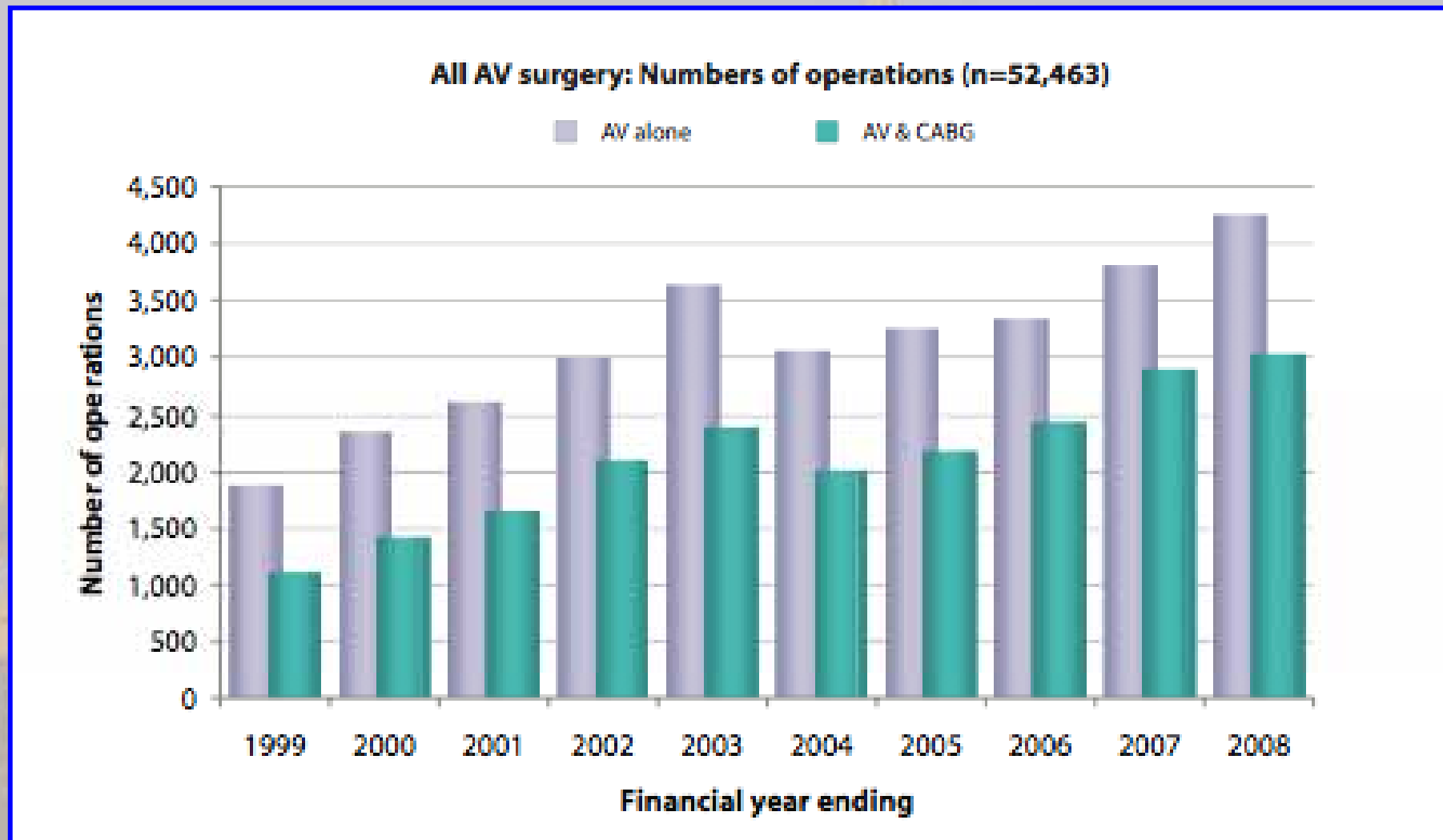
Professor of Cardiovascular Surgery, University of Oxford



Conflicts of Interest:

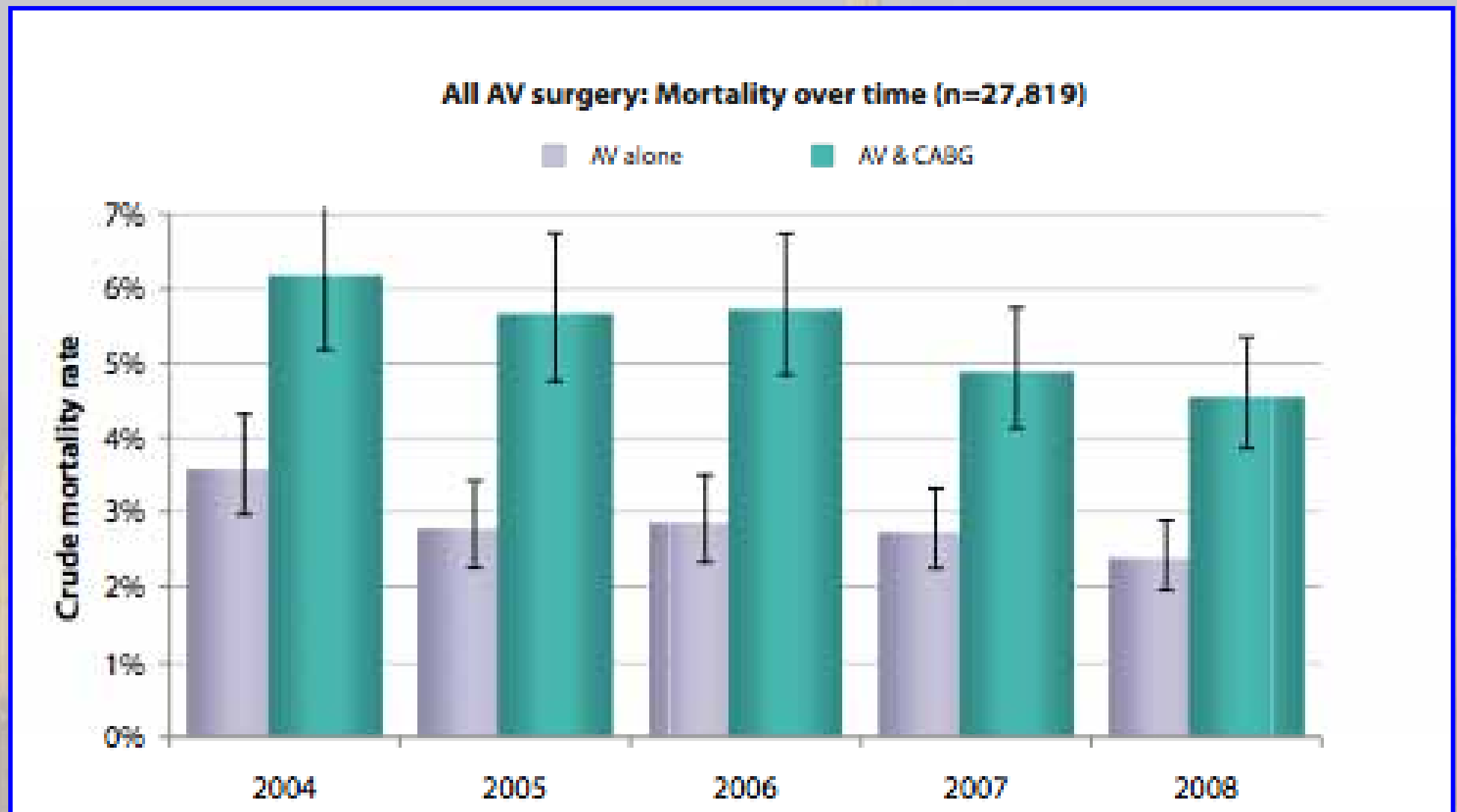
- (i) **Clinical**: Cardiac Surgeon
- (ii) **Commercial**: Consultant to Medtronic, Abbott, AstraZeneca, Novadaq, VGS,
- (iii) **One of 25 ESC/EACTS Guidelines Writers** on Myocardial Revascularization
- (iv) **Chairman Surgical Committee of EXCEL trial**

Isolated sAVR (+/-CABG) have doubled in UK over last decade



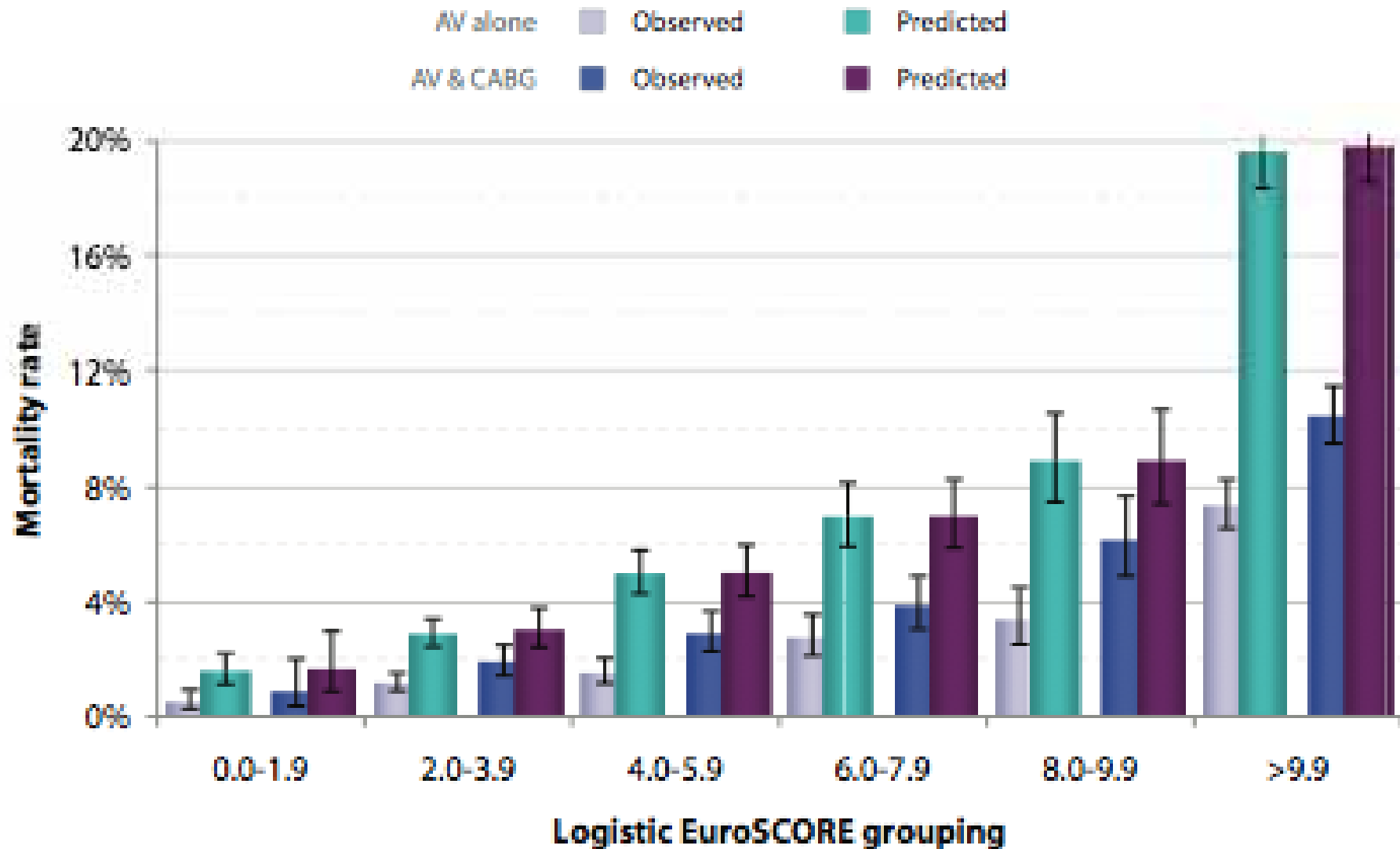
## Mortality

- of isolated sAVR has decreased from 3.5% to 1.8% (2010)
- of sAVR+CABG has decreased from 6% to 3.6% (2010)



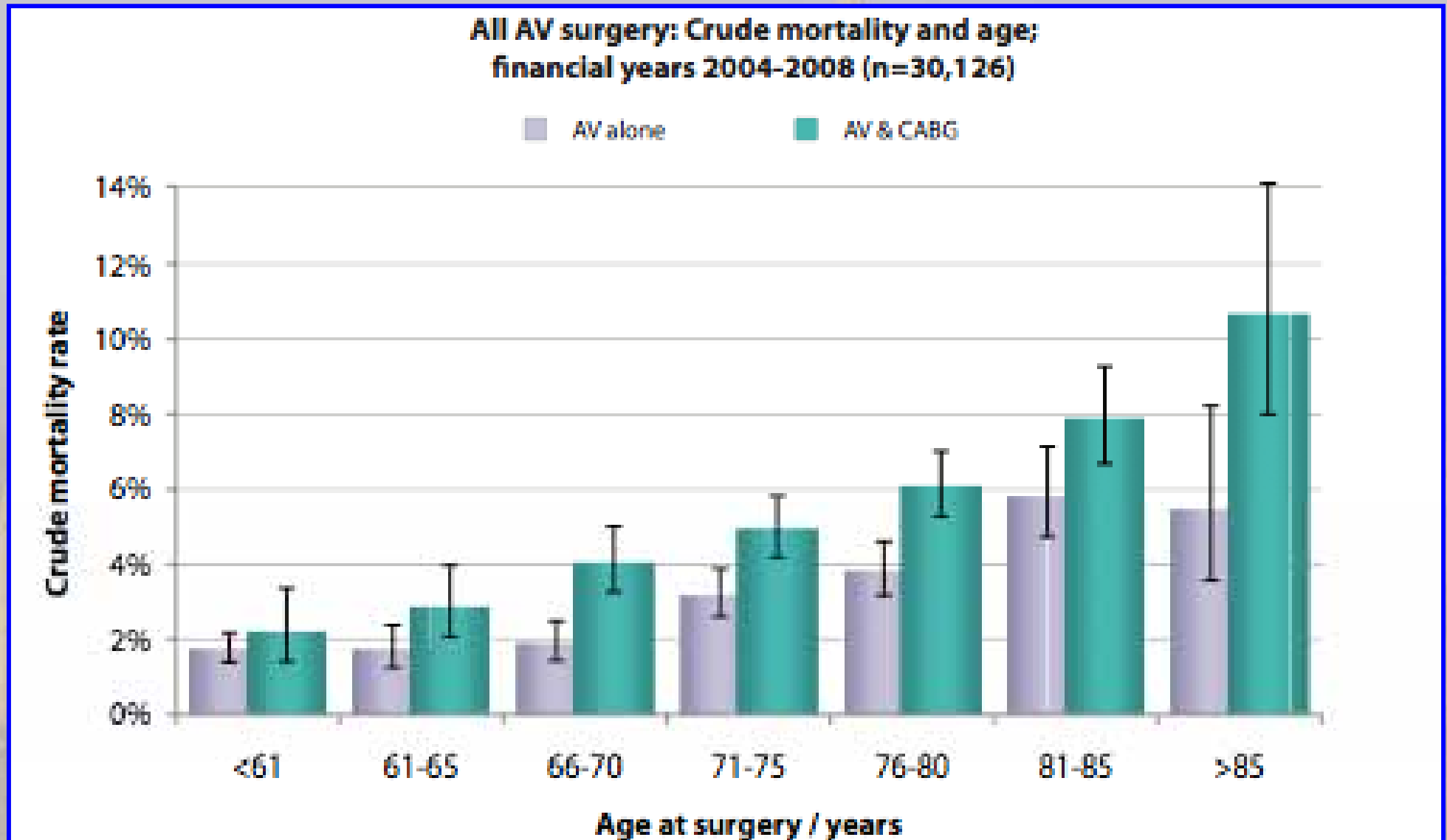
# Mortality for sAVR (+/-CABG) <50% of predicted by LE

**All AV surgery: Observed and predicted mortality rates according to the logistic EuroSCORE; financial years 2004-2008 (n=30,302)**



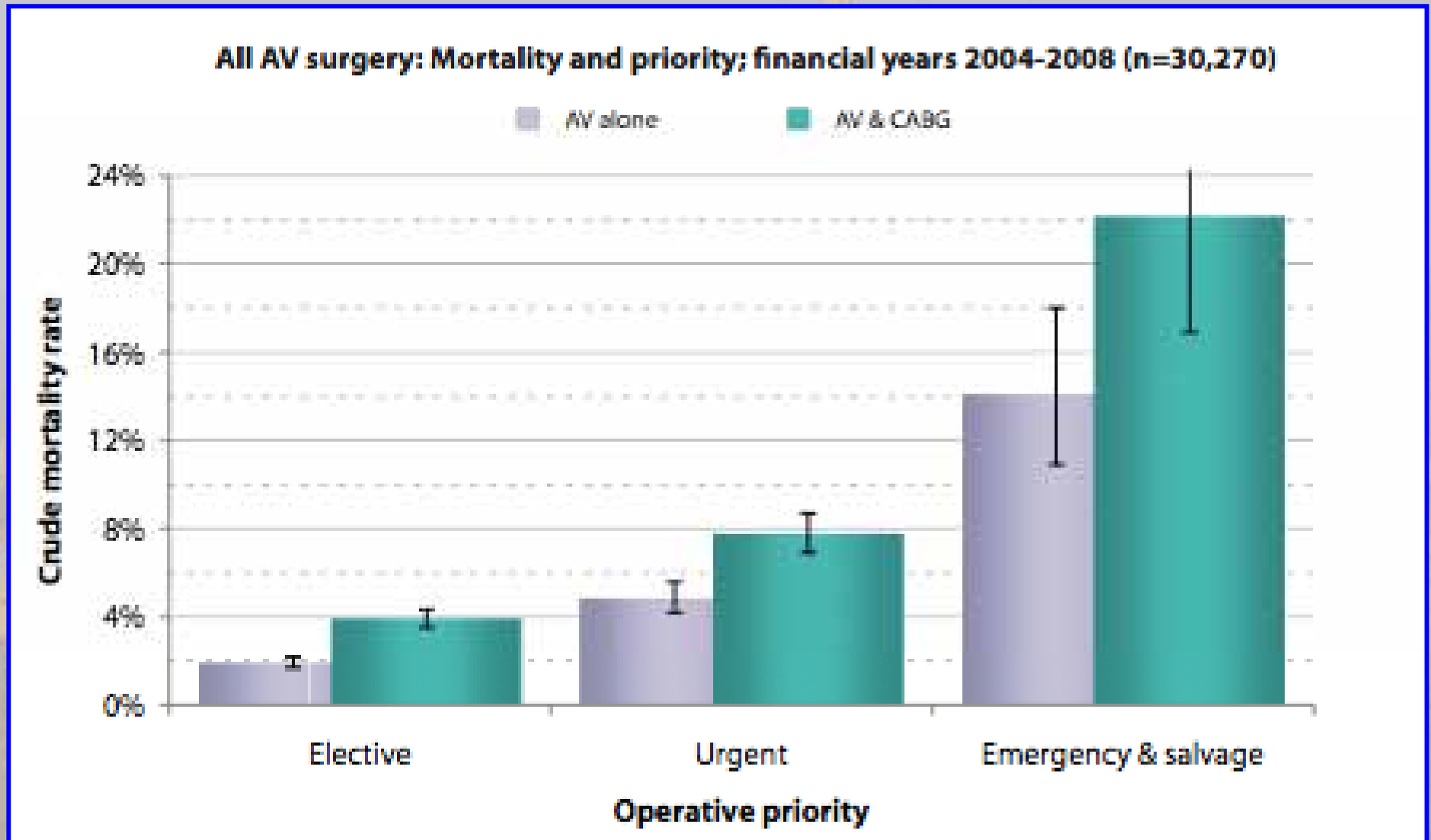
## Mortality and Age

- Mortality of sAVR (+/-CABG) is strongly age related
- Mortality increases x 3 from low 60's to > 80's



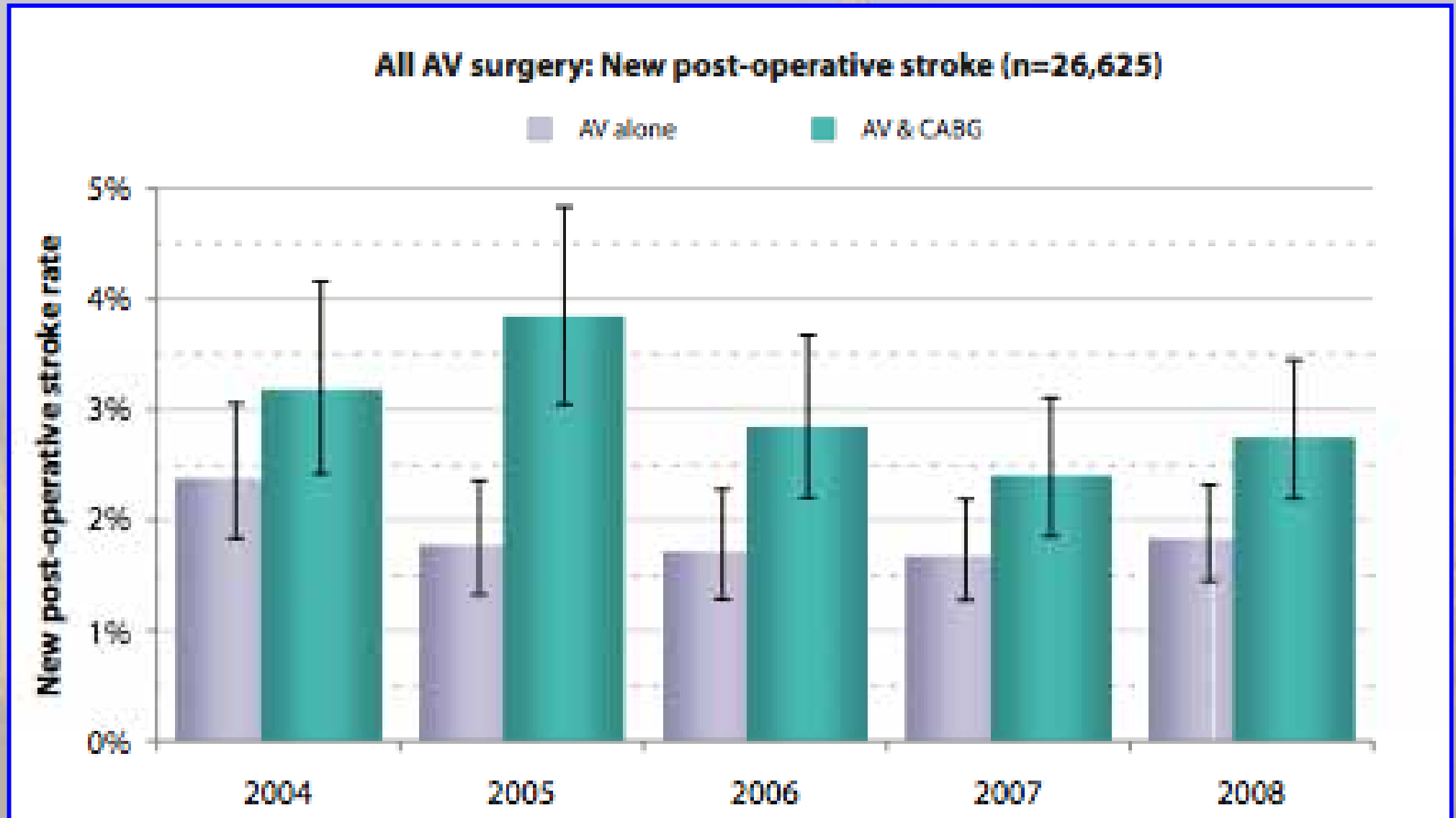
# Effect of Urgency of Operation on Mortality

- Mortality increases x2 if urgent
- Mortality increases x 6 if emergency



## STROKE

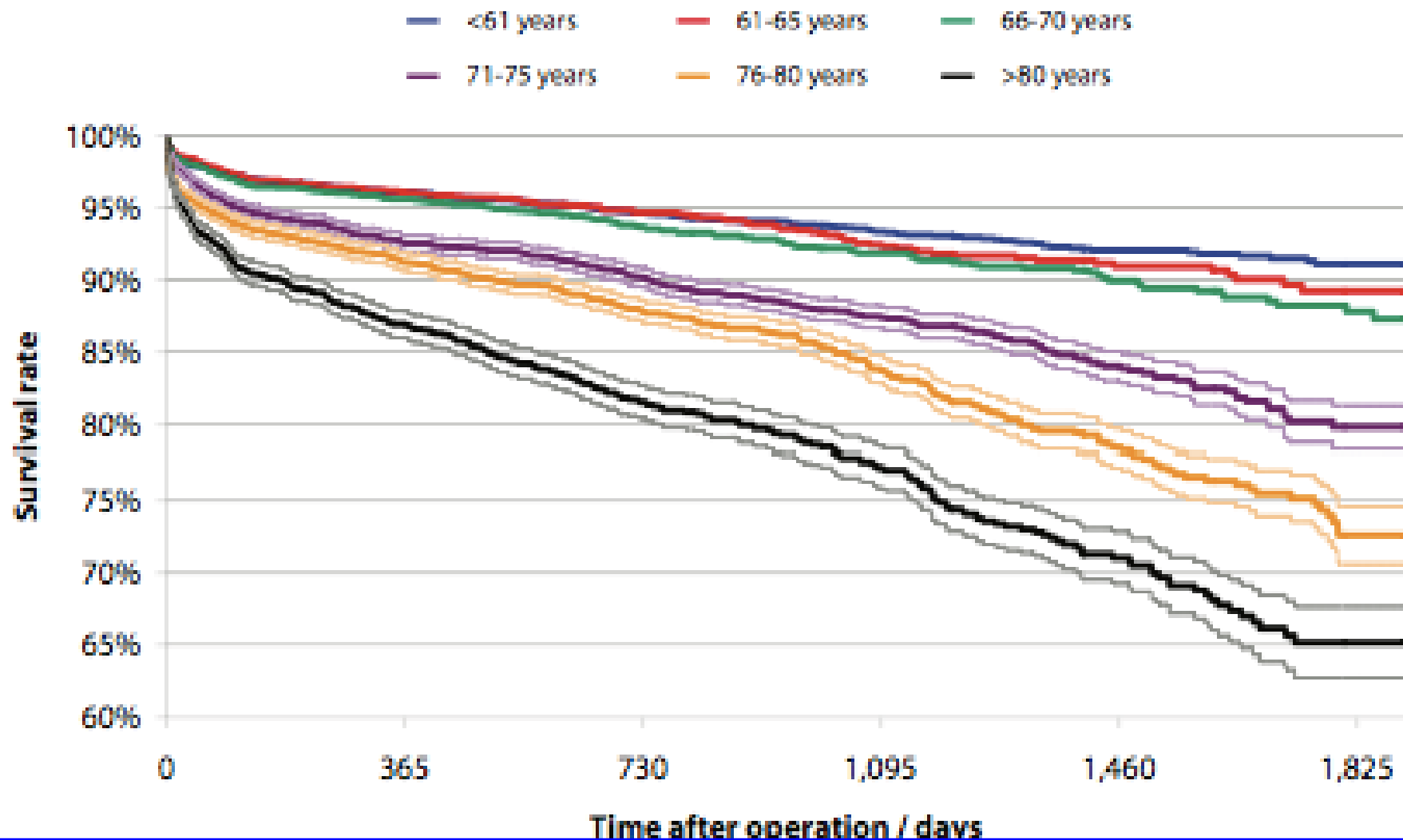
- Risk of stroke for isolated sAVR has decreased from 2.4% to 1.8%
- Higher risk of stroke with sAVR+CABG at 2.6%
- PARTNER Trial stroke risk: 2.4% sAVR vs 4.6% TAVR



# Medium term survival after sAVR is strongly age related

- 5 year survival is >90% for 60yo
- 5 year survival is 65% for >80yo

**Isolated AVR: Medium-term survival and age at surgery;  
financial years 2004-2008 (n=13,851)**





## EXPERT REVIEW

### **A systematic review on the quality of life benefits after aortic valve replacement in the elderly**

JTCVS 2013

Leonard Shan, MBBS, BMedSc,<sup>a</sup> Akshat Saxena, MBBS, BMedSc,<sup>b</sup> Ross McMahon, MBBS,<sup>b</sup>  
Andrew Wilson, MBBS, PhD,<sup>c</sup> and Andrew Newcomb, MBBS<sup>a,d</sup>

### CONCLUSIONS

The main findings of this systematic review are that elderly patients have

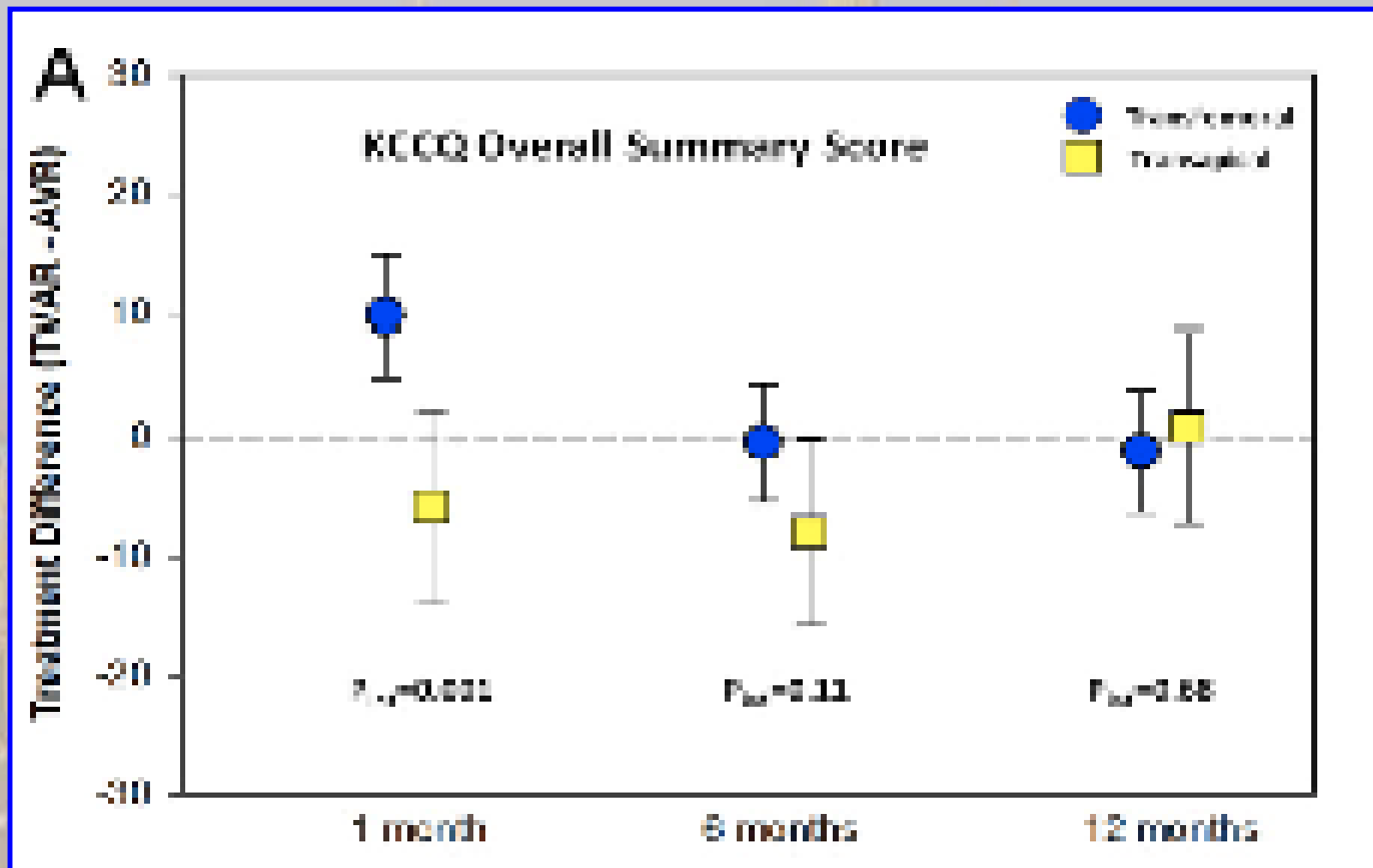
- (1) improvement in cardiac symptoms after AVR
- (2) equal or better HRQOL compared with an age-matched population
- (3) equivalent or superior HRQOL compared with younger AVR patients
- (4) significant functional gains after surgery

# Health-Related Quality of Life After Transcatheter or Surgical Aortic Valve Replacement in High-Risk Patients With Severe Aortic Stenosis

JACC 2012

Results From the PARTNER  
(Placement of AoRTic TraNscathetER Valve) Trial (Cohort A)

Matthew R. Reynolds, MD, MSC,\* Elizabeth A. Magnuson, SCD,† Kaijun Wang, PHD,†



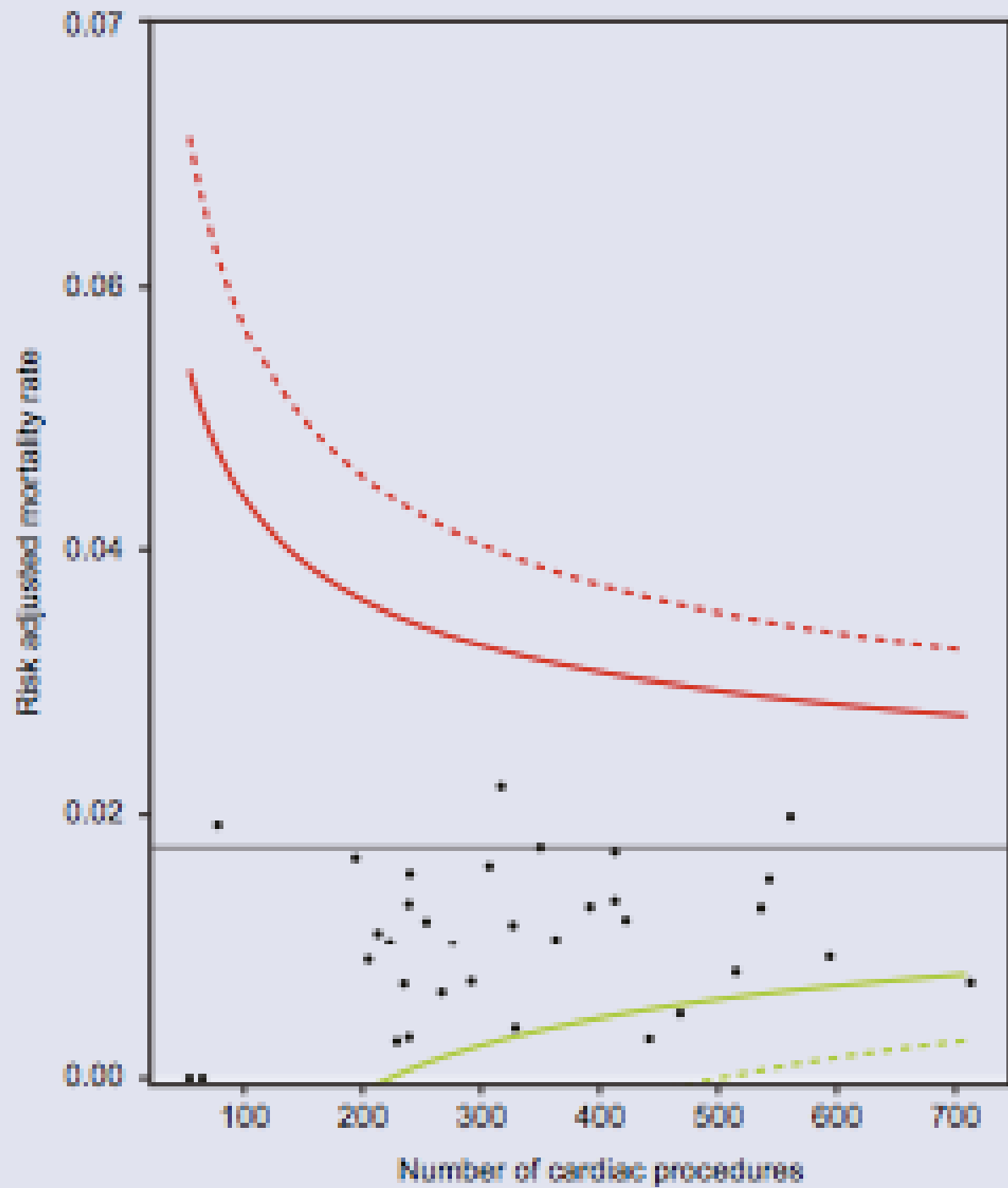
## TAVR in low/intermediate risk patient: questions

	TAVR	Surgical AVR
Immediate Survival	98%	98%
Long-term survival	?	Age dependent
Neurological Injury	?	<2%
Paravalve leak	20% mild/moderate	<2%
Durability	Good for > 3-4 years	>90% at 10 years
Need for pacemaker	5-20%	<5%

## Summary and Conclusions

- Conventional surgical AVR (+/-CABG) can be performed with
  - ✓ Low mortality
  - ✓ Low risk of stroke
  - ✓ Improvement in life expectancy
  - ✓ Improvement in Quality of Life measurements
- These findings also apply to elderly especially in terms of
  - ✓ Improvement in life expectancy
  - ✓ Improvement in Quality of Life measurements
- Risk of surgical AVR strongly influenced by
  - ✓ Age of patient
  - ✓ Urgency of operation





### All AV surgery: New post-operative HF / dialysis (n=26,020)

