How sac regression at 1 year affects all-cause mortality through 5 year: key insights from the ENGAGE registry

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Disclosure

Speaker name:

Michel Reijnen

I have the following potential conflicts of interest to report:

- ✓ Consulting
- ☐ Employment in industry
- ☐ Stockholder of a healthcare company
- ☐ Owner of a healthcare company
- ☐ Other(s)

☐ I do not have any potential conflict of interest

Is EVAR undergoing a paradigm shift?

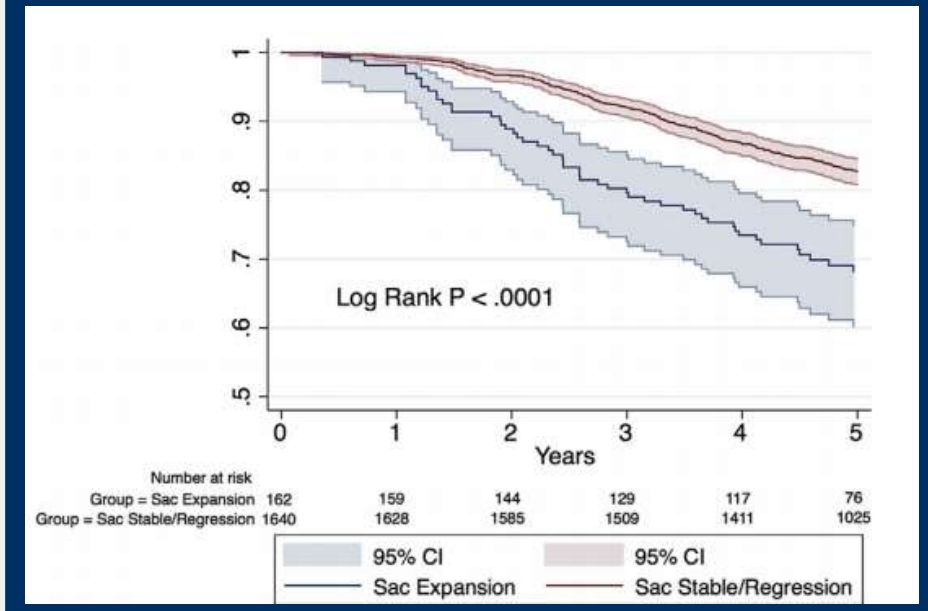
Sac dynamics have always been a robust indicator of EVAR durability but without distinction between stable and regressing aneurysms

Is EVAR undergoing a paradigm shift?
New evidence links sac shrinkage to better outcomes

1-Yr Sac Dynamics Associated with 5-YR Mortality

VSGNE, 2003 – 2011

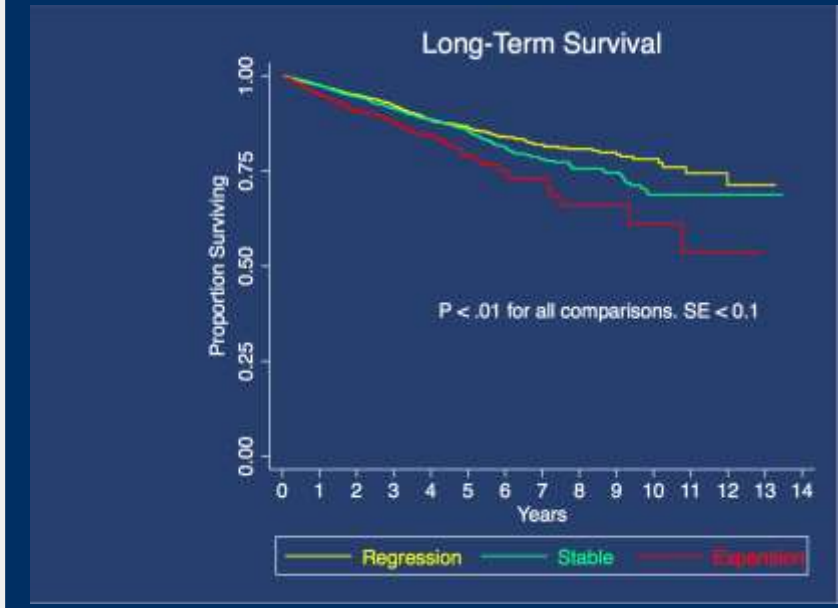
N=1,802 EVAR patients



1-Yr Sac Dynamics Associated with 5- and 10-Yr Mortality

VQI, 2003 – 2017

N=14,827 EVAR patients



Deery et al. J Vasc Surg 2018;67:157-64

O'Donnell et al. J Vasc Surg 2019;69(2):414-422

Is EVAR undergoing a paradigm shift?
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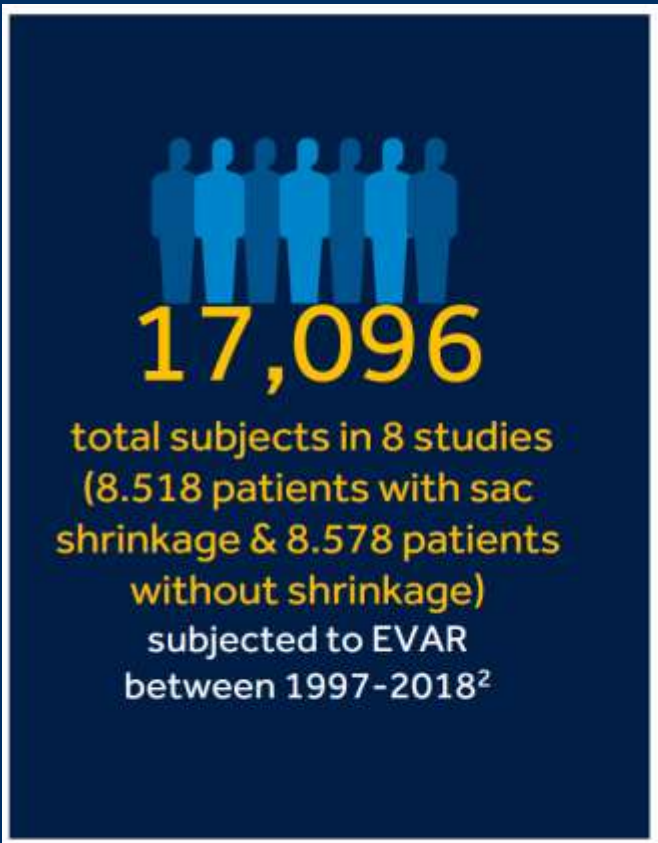
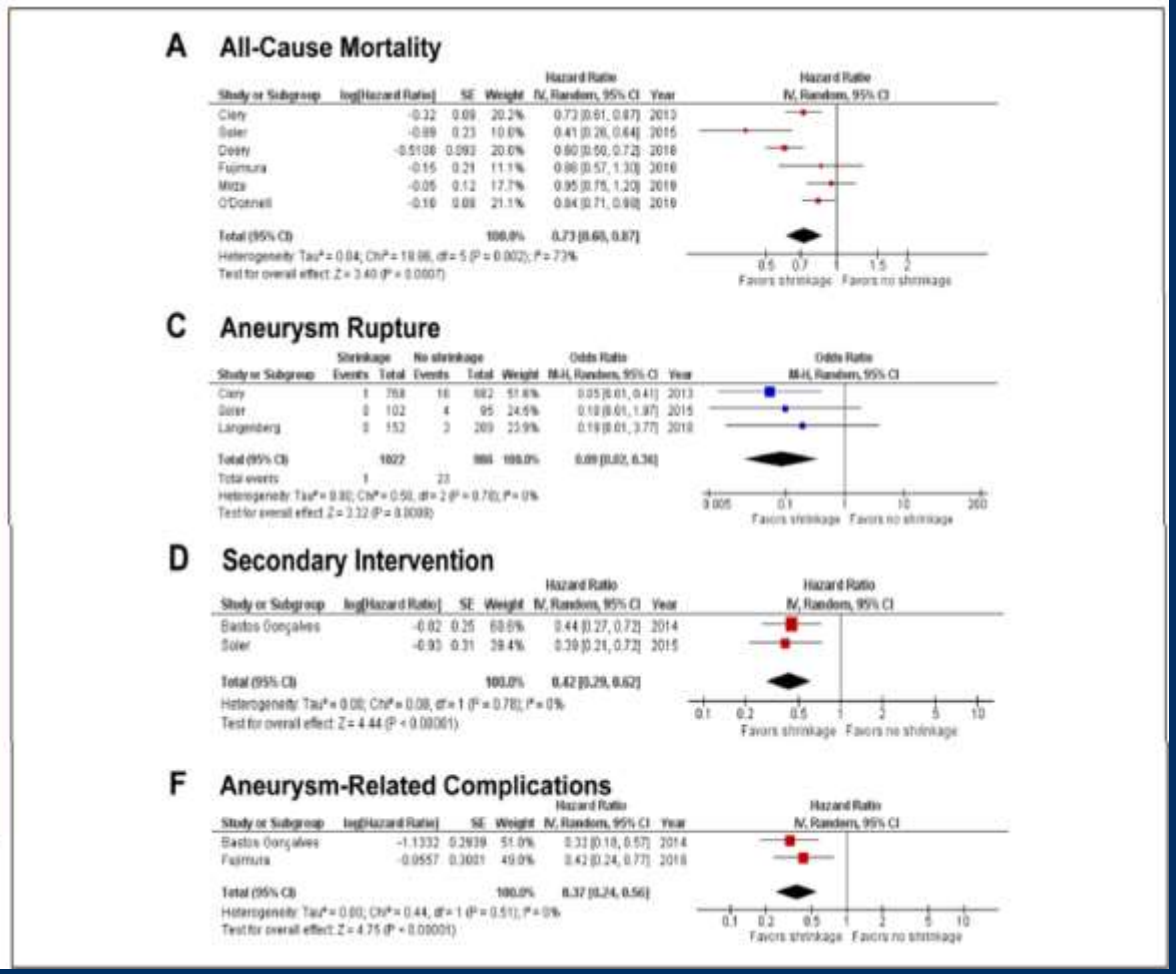


17,096

total subjects in 8 studies (8.518 patients with sac shrinkage & 8.578 patients without shrinkage) subjected to EVAR between 1997-2018[2]

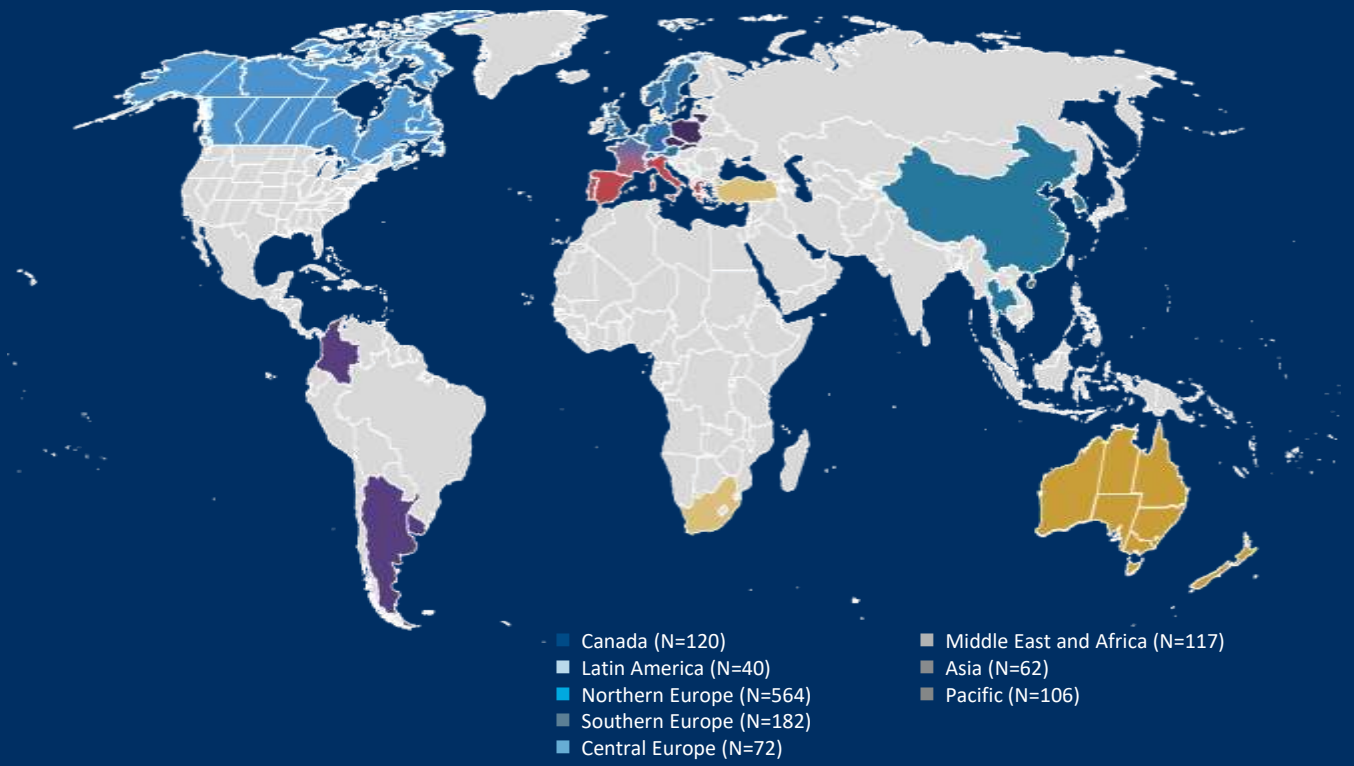


Antoniou *et al.* J Endovasc Ther. 2020 Oct;27(5):857-868.

ENGAGE Registry

1263	30	6
Patients	Countries	Continents

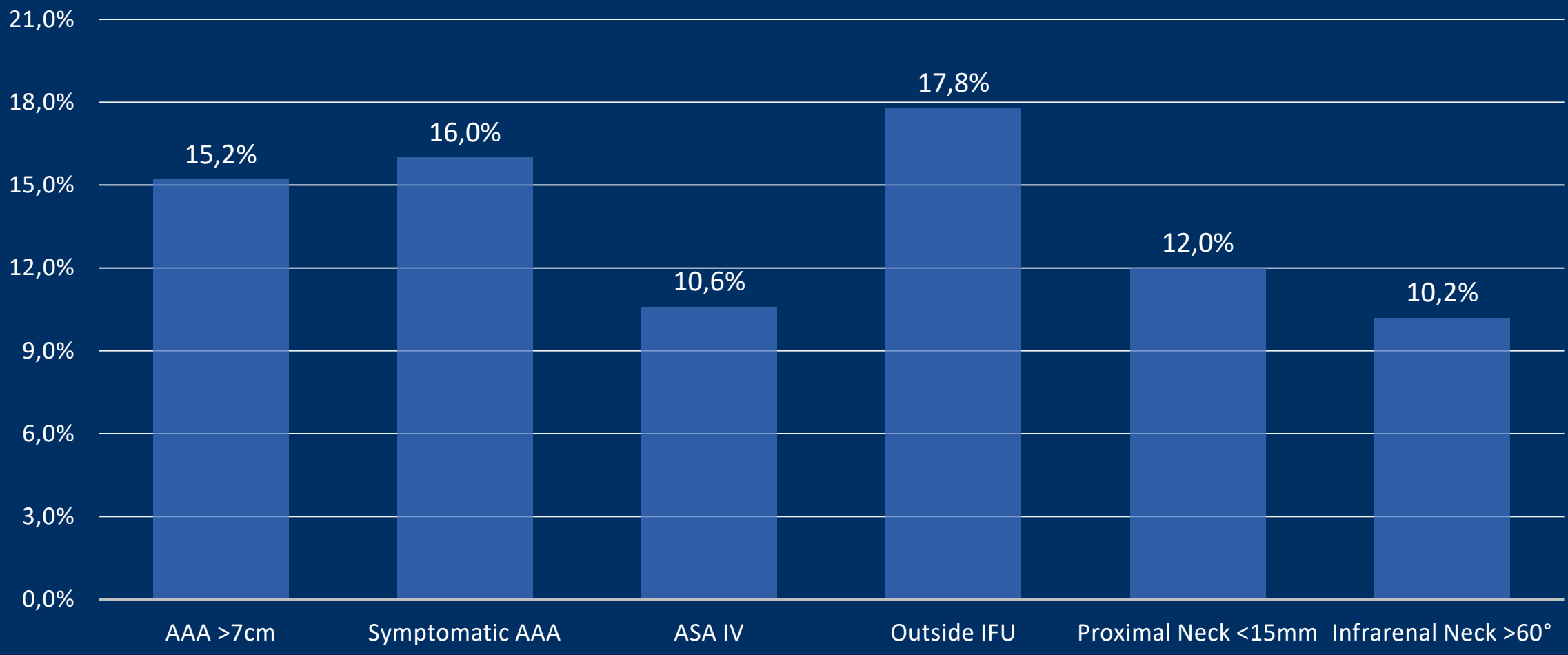
REAL WORLD **PATIENTS:**	REAL WORLD PRACTICE:
Limited inclusion/ exclusion criteria	Limited procedural specifications - Standard follow-up



> 20 publications and **> 100 presentations** at major International/National conferences characterizing ENDURANT™ clinical outcomes

ENGAGE Registry

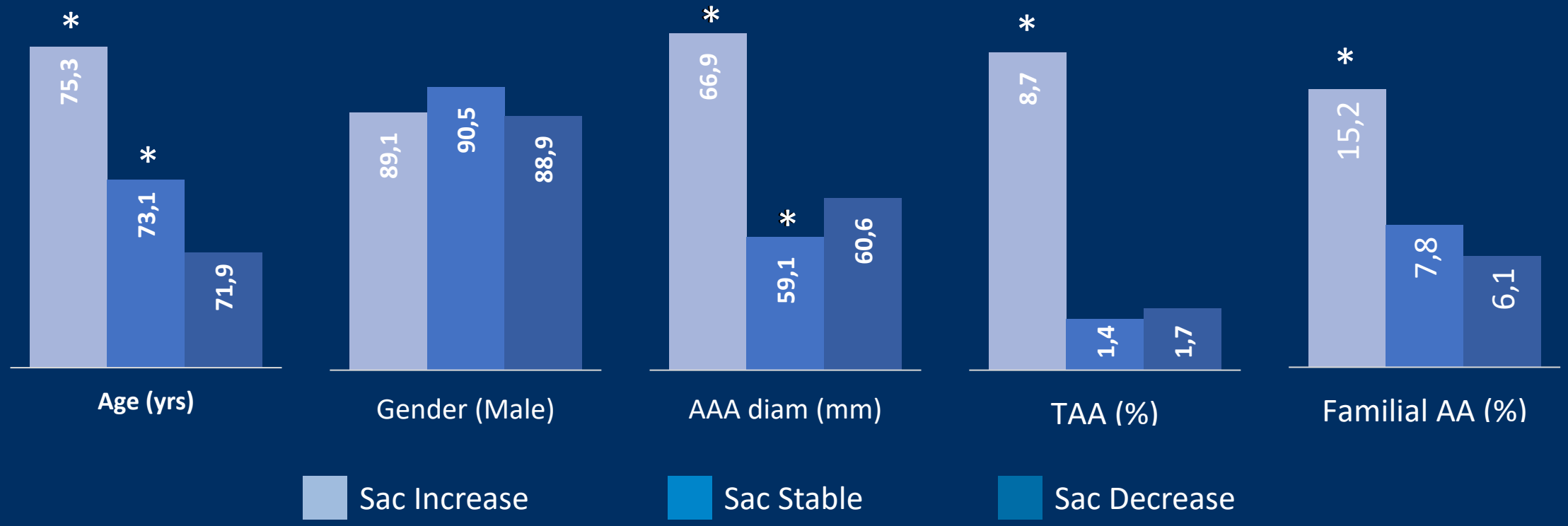
challenging patient cohort



ENGAGE Registry

Baseline Characteristics and sac dynamics

Other baseline characteristics were not statistically different between groups

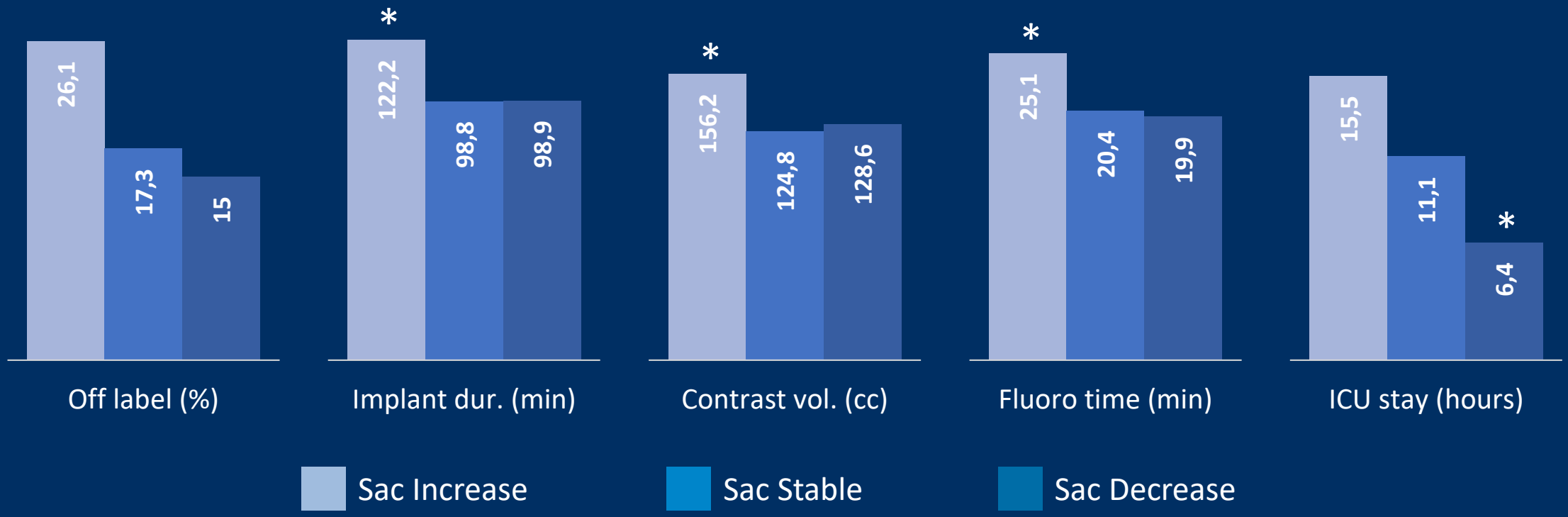


* indicates p<0.05 compared to sac decrease group, note bars charts for different variables are not drawn to the same scale

ENGAGE Registry

Procedural data and sac dynamics

Procedural differences observed despite similar baseline characteristics



* indicates p<0.05 compared to sac decrease group, note bars charts for different variables are not drawn to the same scale

ENGAGE Registry

5-years outcomes

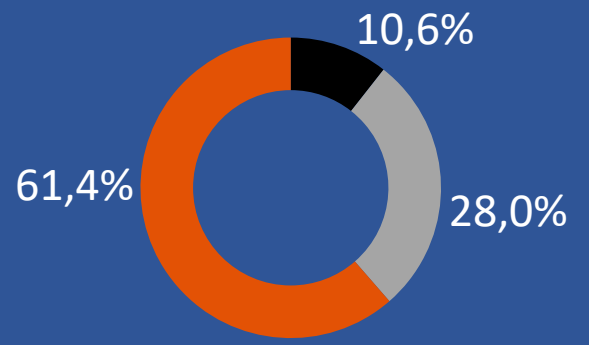
Clinical follow-up compliance **>90% at 5 Years (>650 patients)**

Imaging follow-up compliance **>75% at 5 Years (> 500 patients)**

SUMMARY OF RESULTS THROUGH 5 YEARS

97.8%	98.6%	84.3%
FF Aneurysm Related Mortality	FF Aneurysm Rupture	FF Secondary Procedure

SAC DYNAMICS AT 5 YEARS



61.4% of AAA had sac diameter decrease at 5 years

US IDE trial

CORE LAB

99.3%

(149/150)

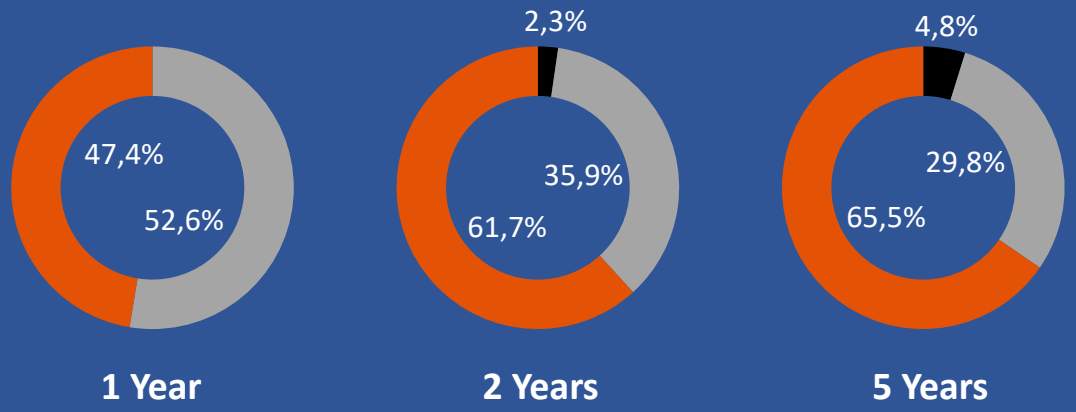
Successful delivery and deployment

ENDOLEAKS

	1 Year	2 Years	5 Years
Core Lab			
Type I/III Endoleak	0%	0.8%	0%
Type II Endoleak	9.1%	9.1%	4.1%

- No migrations
- No fractures
- No conversions

AAA SAC DYNAMICS

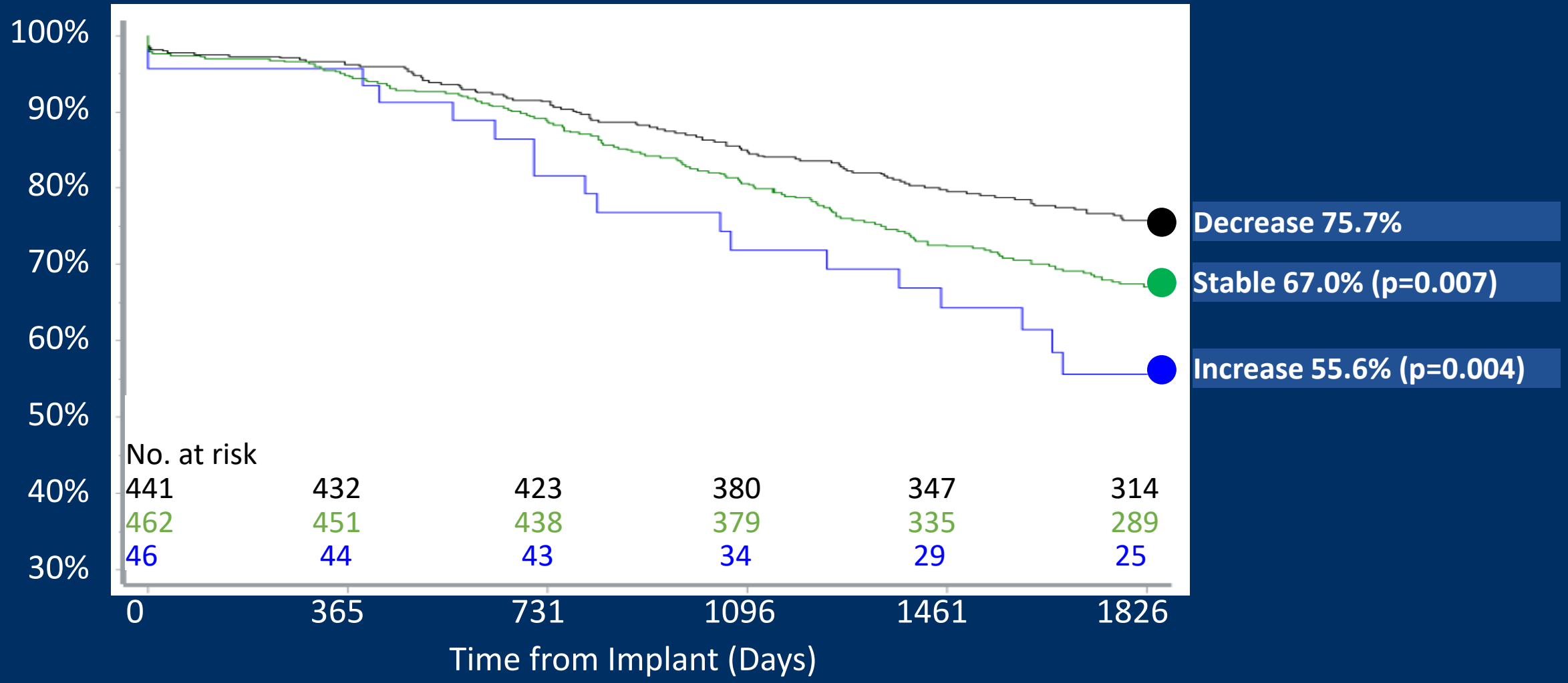


65.5% of AAAs decreased at 5 years

Increase Stable Decrease

ENGAGE Registry

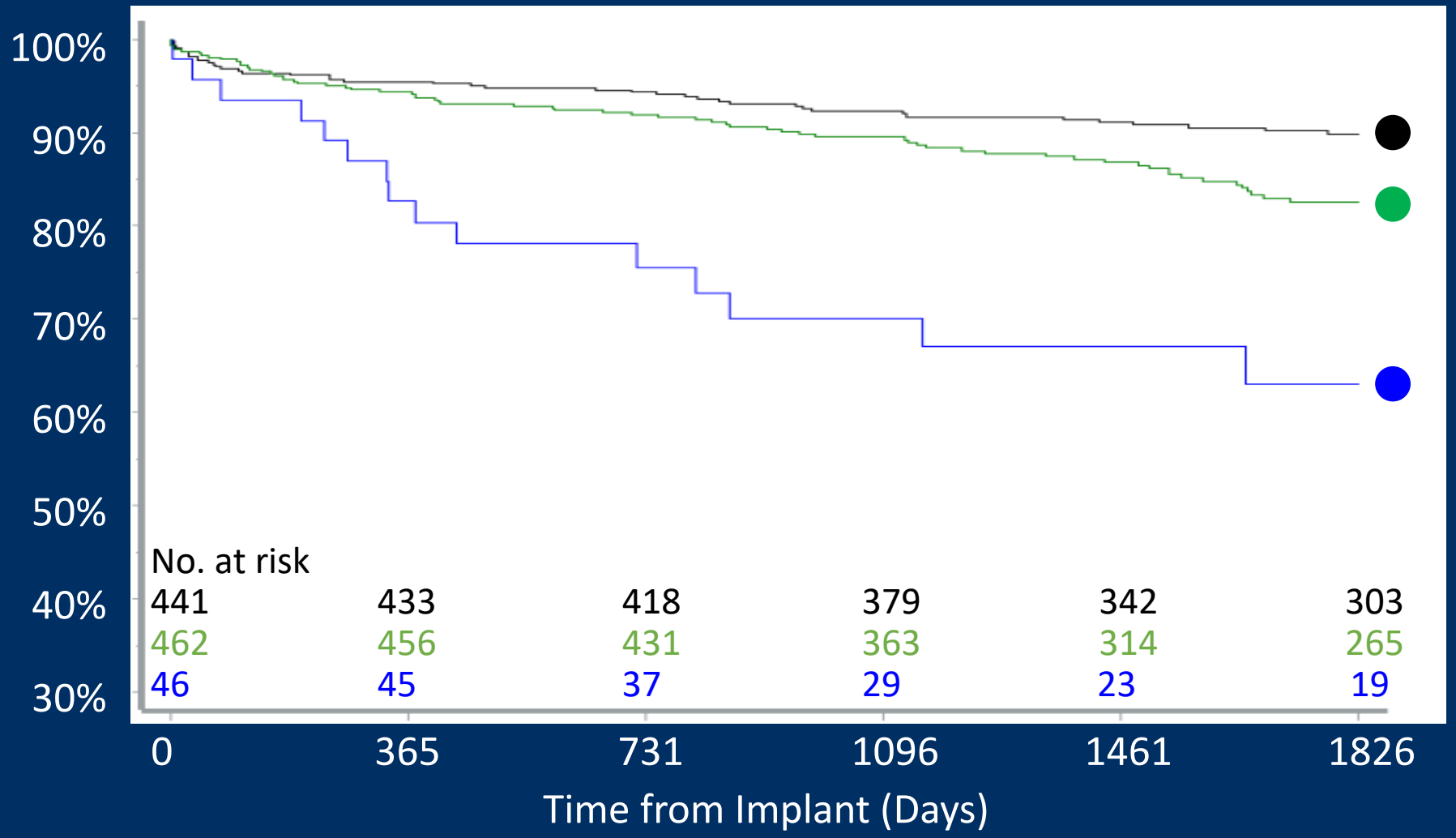
Freedom from major adverse events



p-values are for comparisons to the sac decrease group

ENGAGE Registry

Freedom from secondary endovascular procedures



Decrease 89.8%

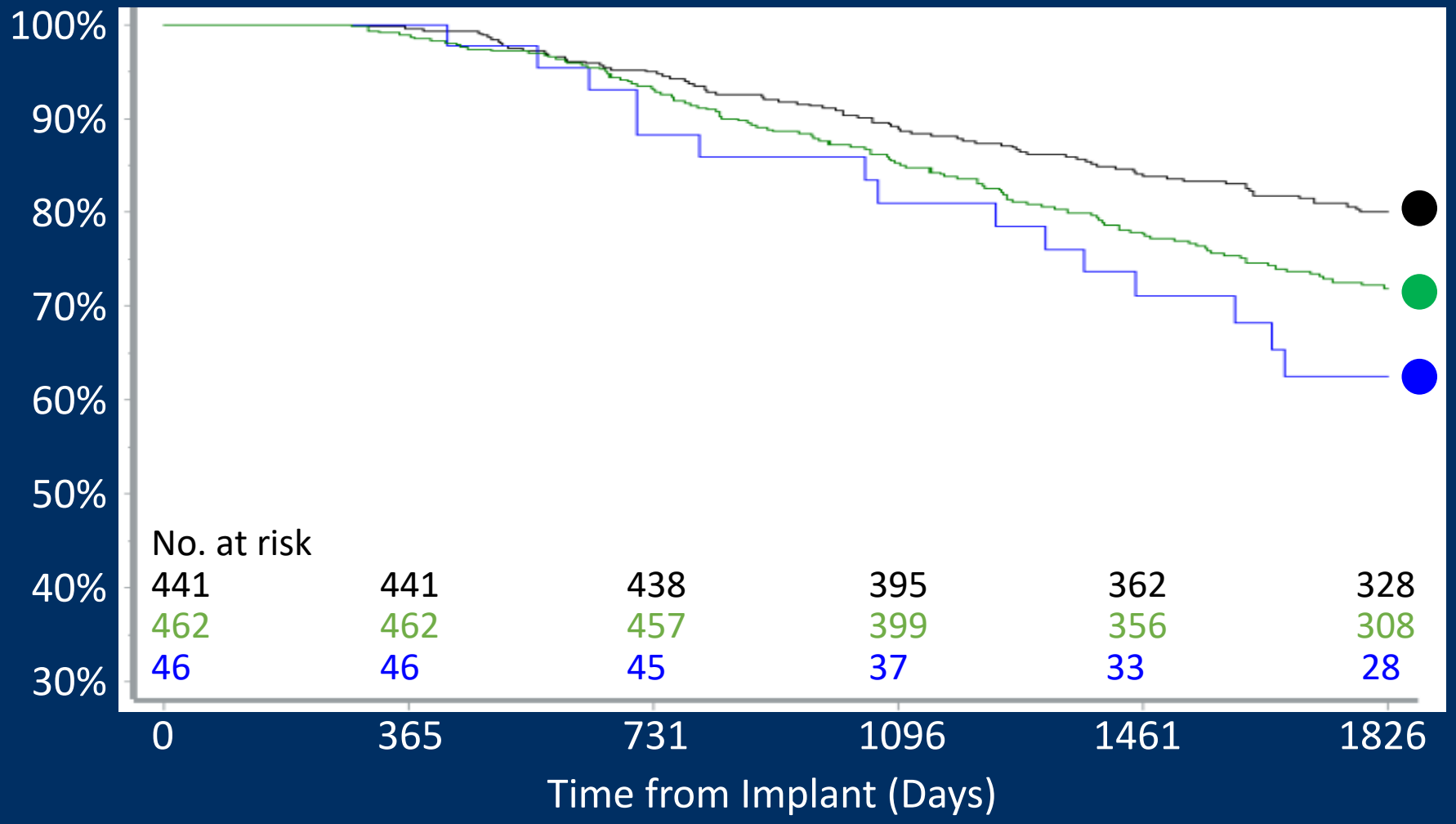
Stable 82.5% (p=0.008)

Increase 63.1% (p<0.0001)

p-values are for comparisons to the sac decrease group

ENGAGE Registry

Freedom from all cause mortality



Decrease 80.0%

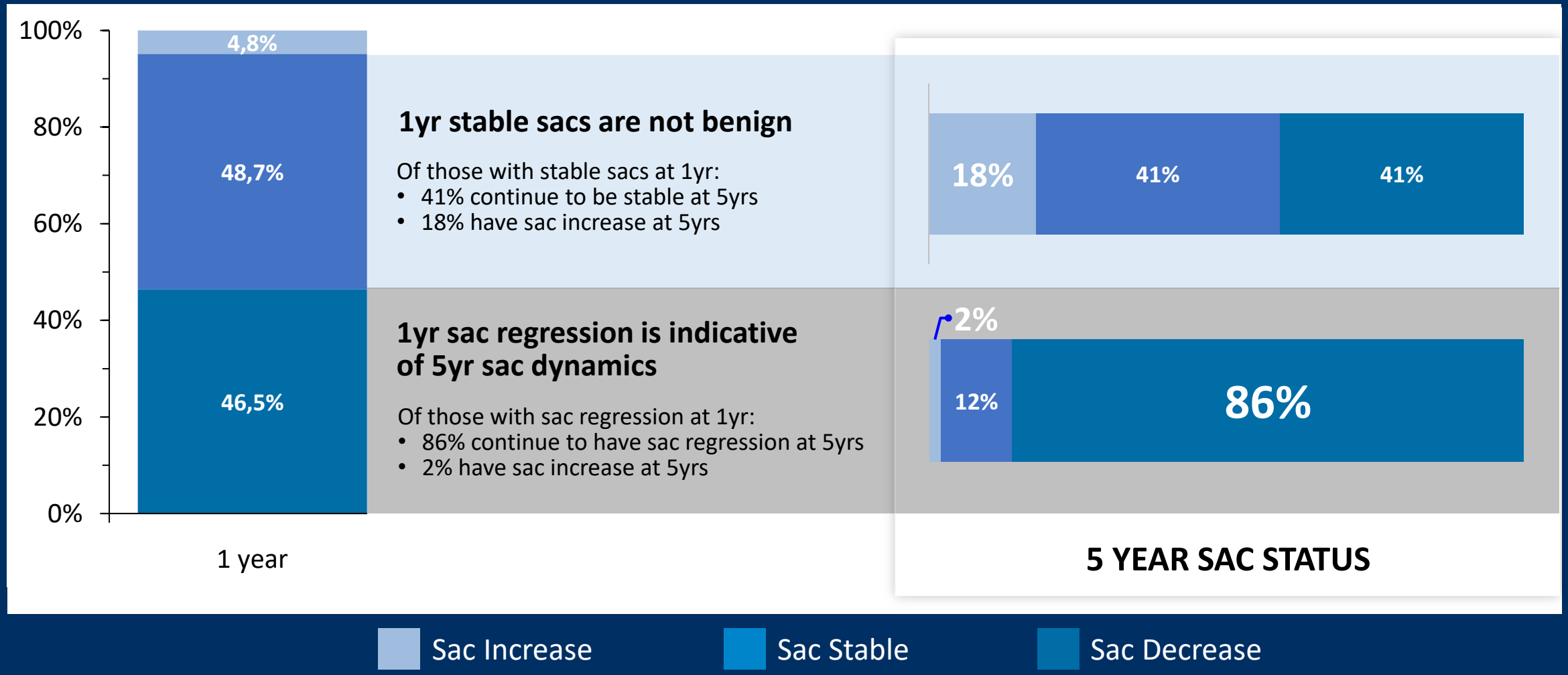
Stable 71.9% (p=0.007)

Increase 62.6% (p=0.010)

p-values are for comparisons to the sac decrease group

ENGAGE Registry

5-years sac dynamics based on 1-year status



Summary

- 1yr stable sacs are not always benign;
  - Major adverse events
  - Secondary endovascular interventions
  - All cause mortality
- 1yr sac regression is indicative of 5yr sac dynamics
- A paradigm shift is emerging and a shrinking aneurysm should be the goal of EVAR

How sac regression at 1 year affects all-cause mortality through 5 year: key insights from the ENGAGE registry

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