



Ensuring clinical effectiveness in challenging EVAR

Marc van Sambeek

Jenny Zwetsloot, Joep Teijink, Philippe Cuypers

Catharina Hospital Eindhoven

Eindhoven University of Technology

Disclosure

Marc van Sambeek

I have the following potential conflicts of interest to report:

- Consulting and speakersfee

 - WL Gore & Associates

 - Medtronic

- Unrestricted research grants

 - Medtronic

 - W.L Gore & Associates

 - Philips Medical Systems

Challenging EVAR ?



There's no univocal definition.

In general:

Neck length \leq 15 mm?

Neck angulation \geq 60°?

Double angled necks?

Irregular (thrombus, bulge, calcium)?

Wide ($>$ 28 mm)?

Or outside instructions for use ??

Which are the risks related to treatment of a challenging neck?

Endoleak
Migration

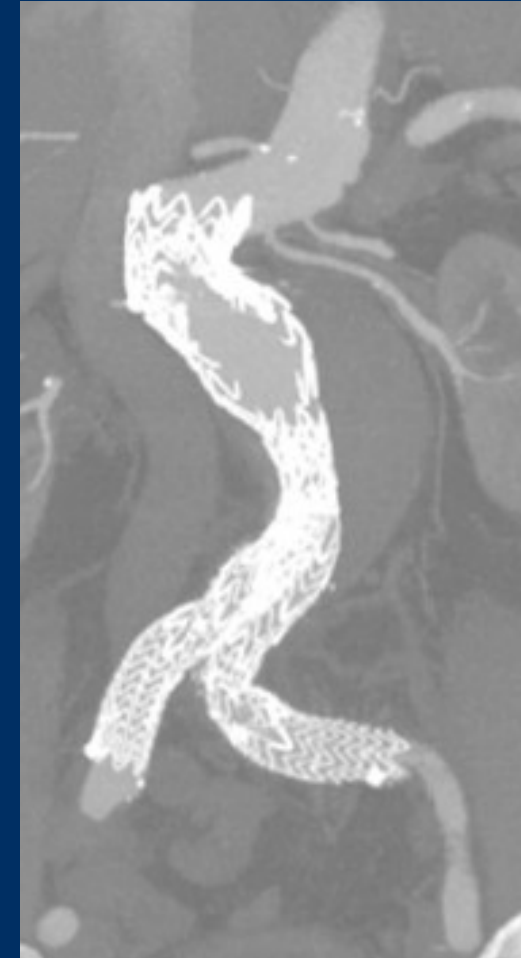


Aneurysm rupture



Infrarenal neck: the most likely reason of failure

- Angulation of the infrarenal aortic neck
- Length of the infrarenal aortic neck
- Presence of reverse taper



Solutions:

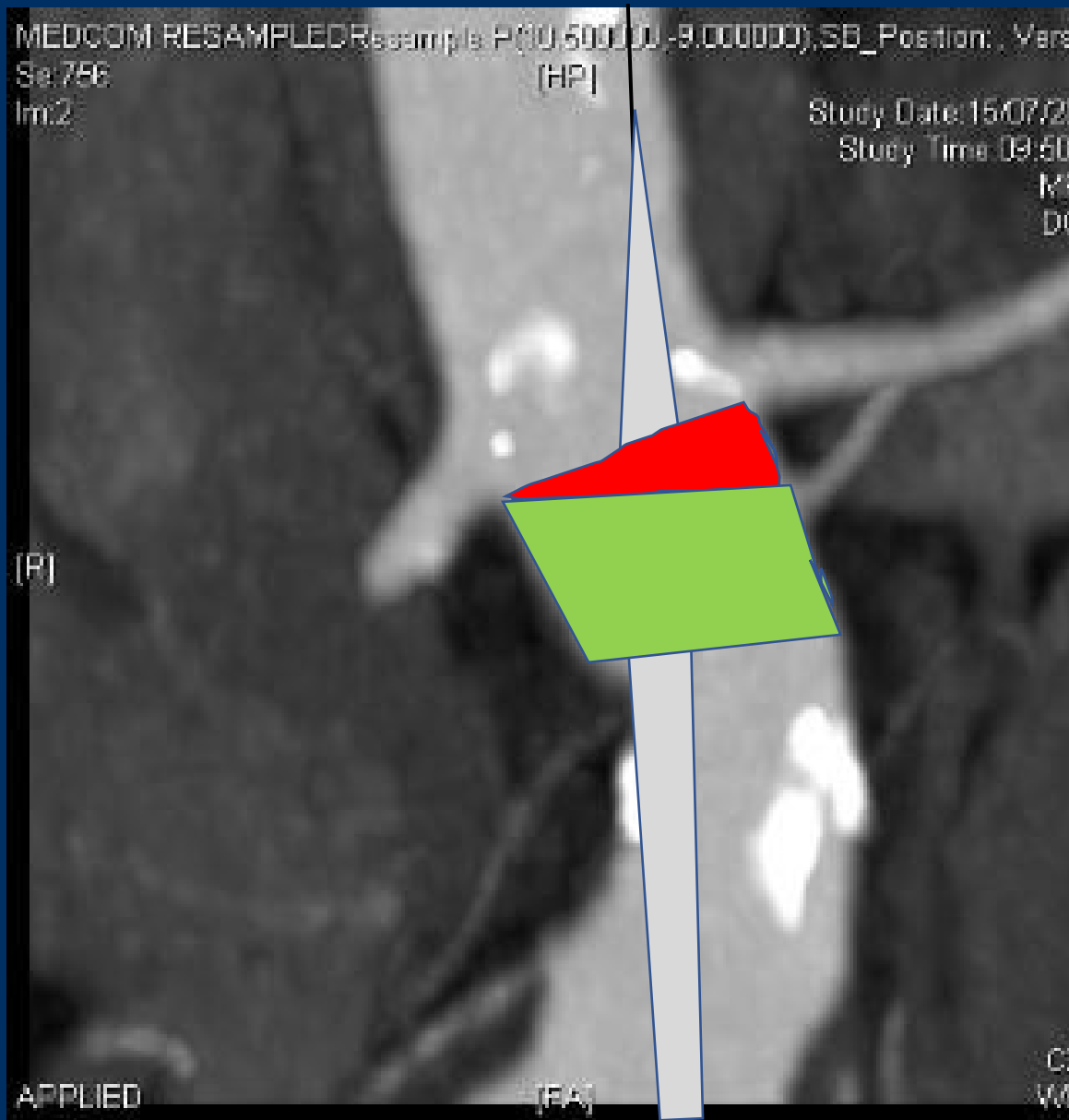
Improve accuracy

- Proper C-Arm angles
- Early fixation
- Repositioning of device after initial deployment
- But, probably most important.....

Maximize sealing zone

- **Solutions:**
 - Improve accuracy
 - Early Fixation
 - Proper C-Arm Angles
 - Repositioning of device after initial deployment

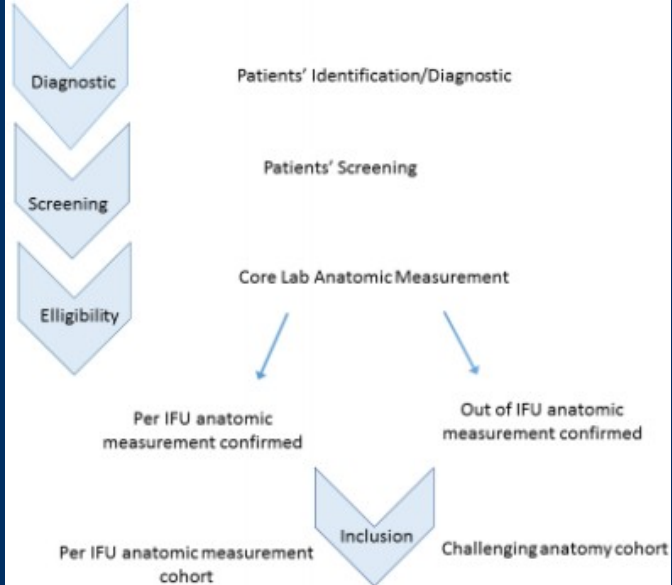
 - Maximize seal zone
 - Planning and anticipation of device deployment
 - Use of aortic cuffs
 - Use of balloon expandable stents
 - Achieve optimal apposition



Optimalisation of sealing zone is about the maximum area of apposition



EXCeL Registry is a multi-center, post-market, non-interventional, non-randomized, single-arm, prospective observational study.



150 consented subjects from 10 high-volume sites across Europe will be included.

Follow-up 3 years

	> 15 mm neck length	10-15 mm neck length	5-10 mm neck length	< 5 mm neck length
< 60° neck angulation	Inside IFU	Inside IFU	Challenging anatomy	Extreme anatomy
60-90° neck angulation	Inside IFU	Challenging anatomy	Extreme anatomy	
> 90° neck angulation	Challenging anatomy	Extreme anatomy		

	> 15 mm neck length	10-15 mm neck length	5-10 mm neck length	< 5 mm neck length
< 60° neck angulation	57	3	2	
60-90° neck angulation	14	2		
> 90° neck angulation	3			

EXCeL Registry

Number of inclusion (N=90)*

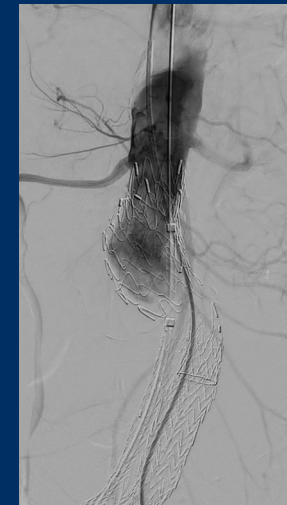
Catharina Hospital Eindhoven	24
Rijnstate Hospital Arnhem	22
San Martino Hospital Genova	17
San Carlos Hospital Madrid	8
Complejo Hopitario de Orense	7
North Bristol NHS Trust	7
APHP Hospital Europeen Paris	3
ETZ Hospital Tilburg (Recently started)	2

* Data received by December 31 2020. Actual number of inclusion is higher

EVAR continues to evolve as the treatment option for AAA

New generation devices will extend the applicability of EVAR

Data of EXCeL Registry will be presented on Thursday January 28



The logo features the word "LINIC" in a white, sans-serif font, centered horizontally. Behind the text are two thick, curved brush strokes: a red one on the left and an orange one on the right, both curving upwards and to the right. The background is a dark blue gradient with a subtle, textured pattern of fine white lines.

LINIC