

The logo for LINC (Lancet International Collaborative Network) features the letters 'LINC' in a white, sans-serif font. The letters are positioned over a stylized graphic of three curved, overlapping brushstrokes in dark blue, red, and yellow. The background of the slide is a light blue gradient with a large, faint, light blue brushstroke graphic that curves across the upper left and middle sections.

LINC

# 2-year Outcomes from the IMPERIAL Randomized Head to Head Study of Eluvia DES and Zilver PTX

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on behalf of the IMPERIAL investigators

# Disclosure

Speaker name:

.....William A. Gray.....

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

# IMPERIAL Clinical Study Overview

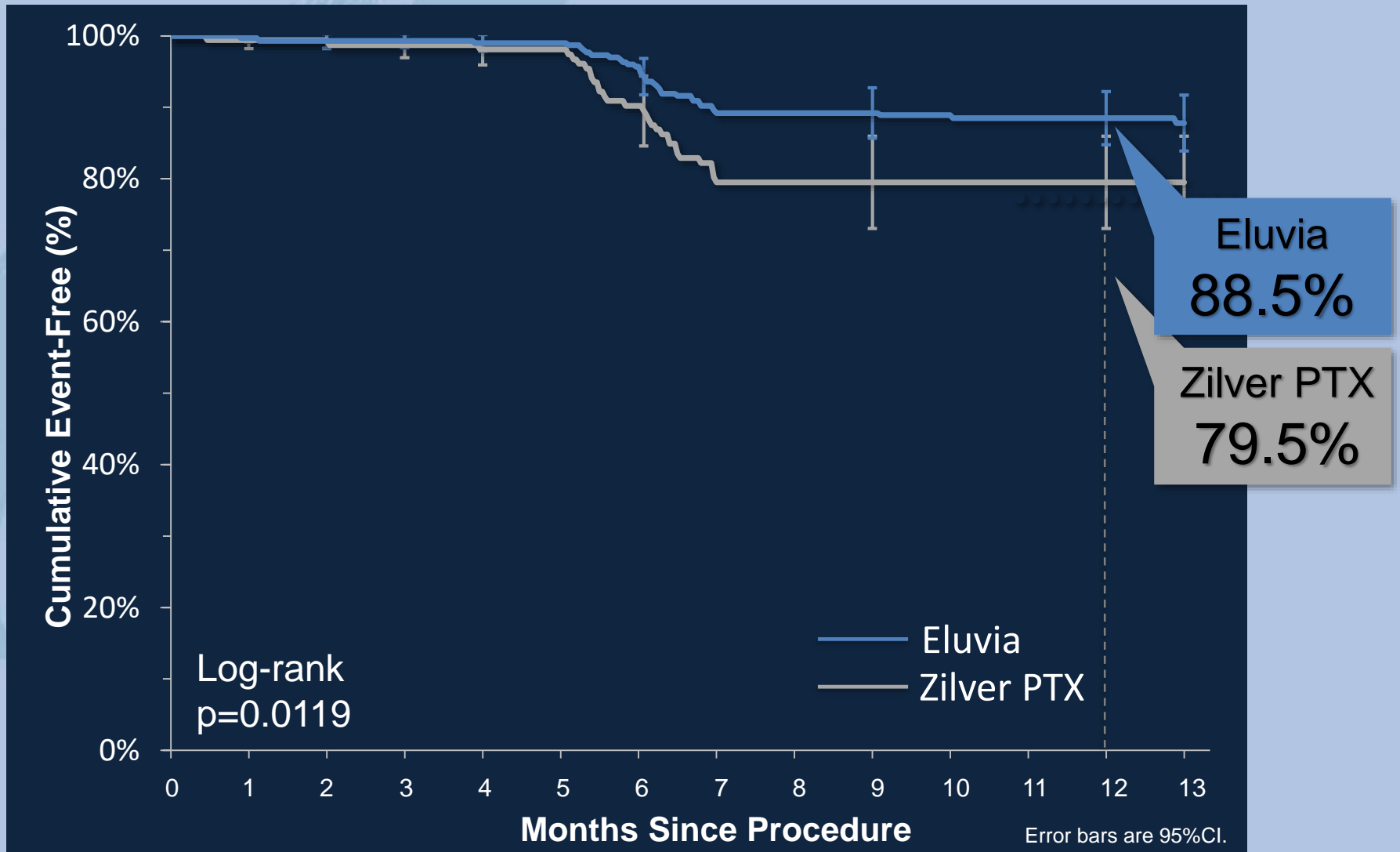
<b>Primary Investigators</b>	Global: William A. Gray, MD European: Stefan Müller-Hülsbeck, MD		
<b>Study Design</b>	Head to Head RCT (Eluvia™ DES vs Zilver™PTX™)	Long Lesion Sub-study (Eluvia)	Pharmacokinetic Sub-study (Eluvia)
	<ul style="list-style-type: none"> <li>• 2:1 randomized</li> <li>• Single-blind</li> <li>• Non-inferiority trial</li> </ul>	<ul style="list-style-type: none"> <li>• Single arm</li> <li>• Lesion length 140 mm-190 mm</li> </ul>	<ul style="list-style-type: none"> <li>• Single-arm</li> </ul>
<b>Patients</b>	N=465 Eluvia N=309 vs Zilver PTX N=156	N=50	N=13
<b>Investigational Centers</b>	65 study centers: US, Canada, New Zealand, Belgium, Germany, Austria, Japan		

# Correction to IMPERIAL 1-Year Kaplan-Meier Primary Patency Results

- In the course of responding to a query on 2-year data, we identified a data correction needed in the 1-year Kaplan-Meier analysis of primary patency
- The correction does not affect efficacy, safety events, or mortality; both study arms affected equally
  - Does not affect the overall number of events, primary 1-year conclusions, or subgroup analysis conclusions previously reported
  - Only the timing of events in the time-to-event analysis was affected
- The Lancet and appropriate regulatory bodies have been notified and corrections are forthcoming
- All statistical programming has been independently re-validated and 2-year data are unaffected

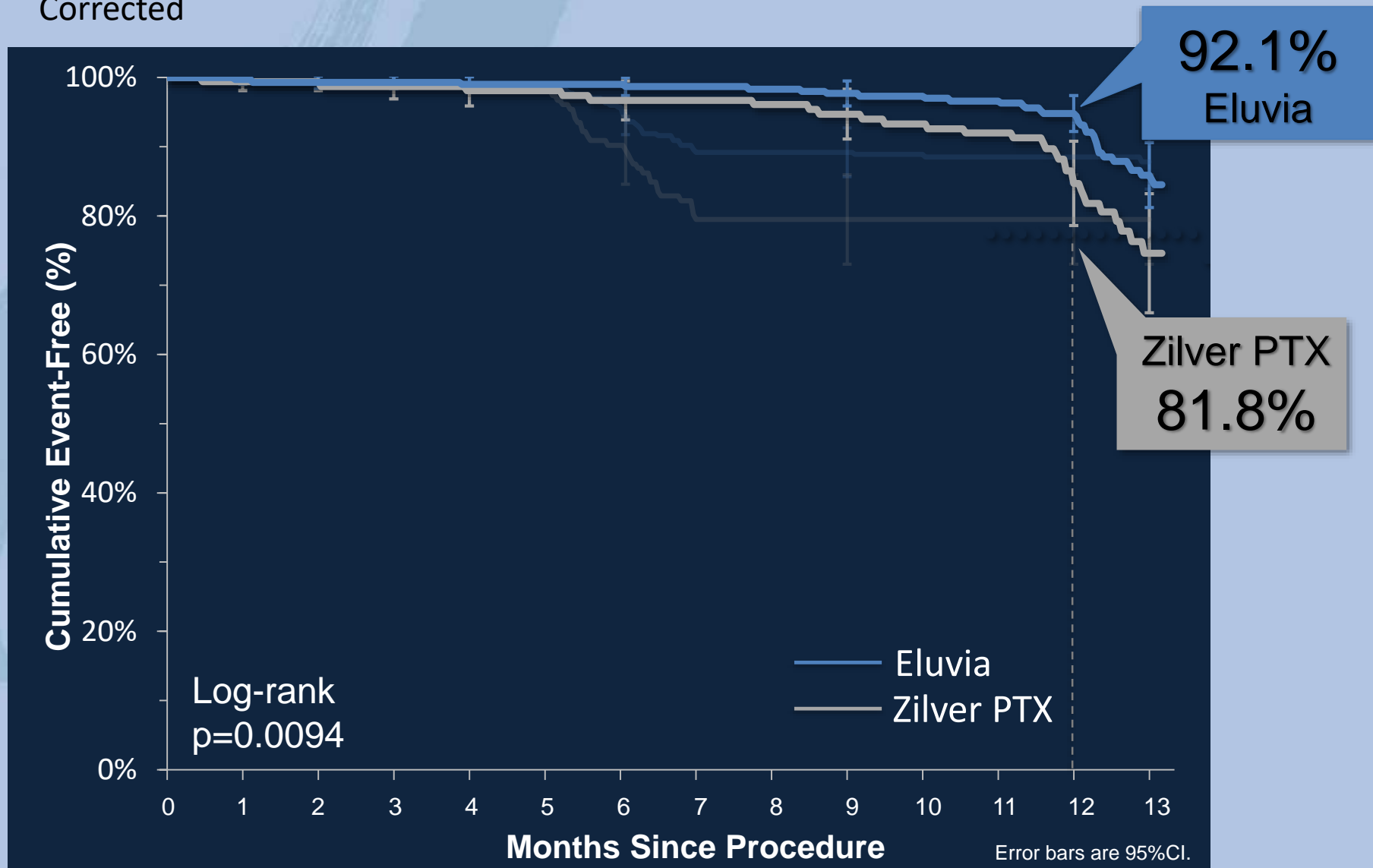
# Kaplan-Meier Analysis of Primary Patency at 1 Year

Original



Primary patency defined as duplex ultrasound PSVR  $\leq 2.4$ , in the absence of clinically-driven target lesion revascularization or bypass of the target lesion, as assessed by the DUS core lab.

# Kaplan-Meier Analysis of Primary Patency at 1 Year Corrected



Primary patency defined as duplex ultrasound PSVR  $\leq 2.4$ , in the absence of clinically-driven target lesion revascularization or bypass of the target lesion, as assessed by the DUS core lab. The Kaplan-Meier curve is based on the time to event of clinically-driven TLR and/or 12-month duplex ultrasound patency failure up to 395 days.

Correction submitted to The Lancet.



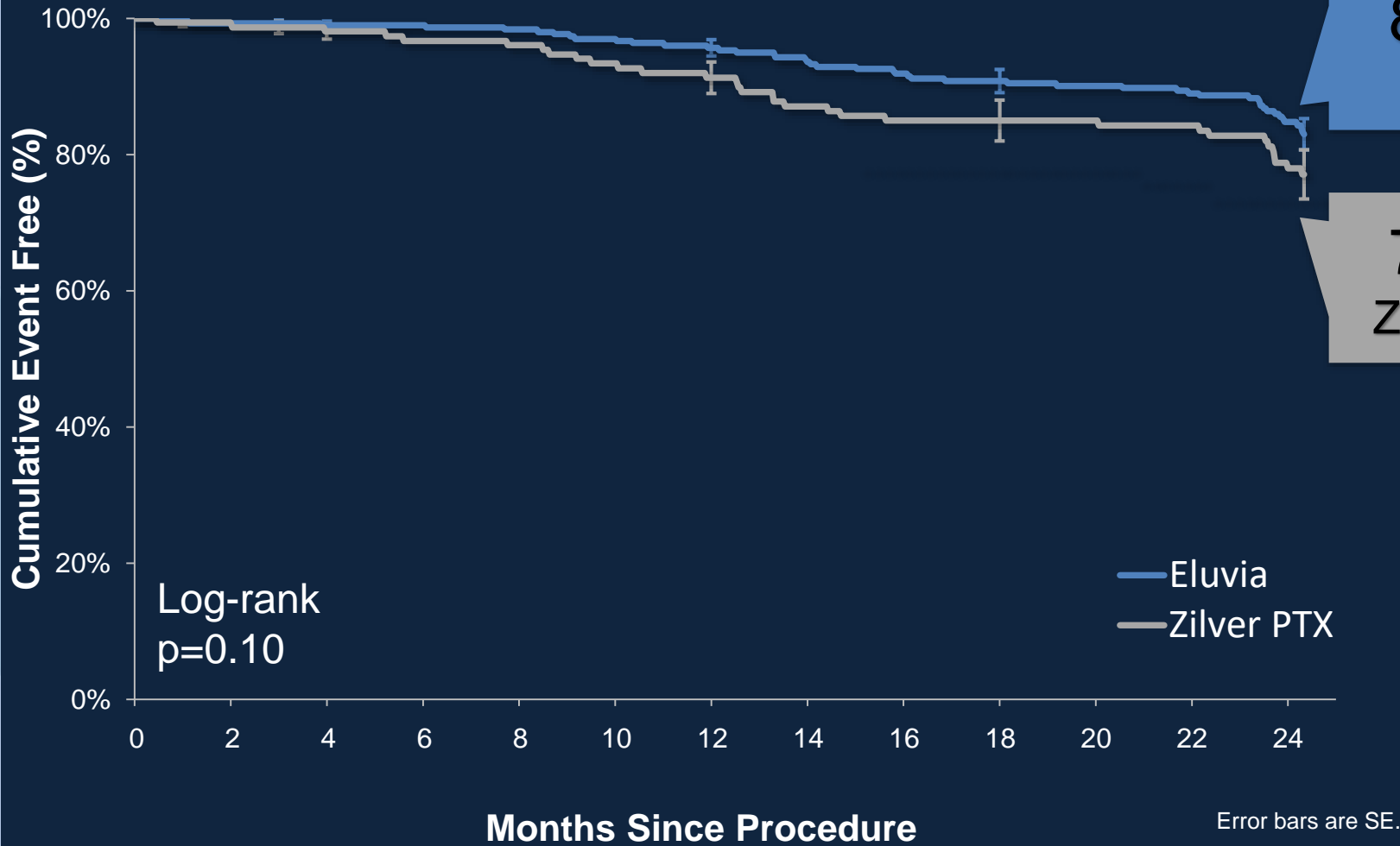
IMPERIAL Head to Head RCT

# **2 YEAR RESULTS**

# Effectiveness | Primary Patency at 24 Months

83.0%  
Eluvia

77.1%  
Zilver PTX



Intention to treat. Kaplan-Meier estimate with standard errors. Primary patency defined as duplex ultrasound PSVR  $\leq 2.4$ , in the absence of clinically-driven target lesion revascularization or bypass of the target lesion, as assessed by the DUS core lab. Kaplan-Meier estimate utilizing time-to-event of clinically-driven TLR up to 730 days and duplex ultrasound data at 24 months.



# Safety at 24 Months

- 24-month all-cause mortality 7.1% (21/295) for Eluvia and 8.3% (12/145) for Zilver PTX (p=0.6649)
- Freedom from MAE **85.8%** vs **79.9%** (p=0.1236)
- Significantly lower clinically-driven TLR rate for Eluvia vs Zilver PTX (**12.7%** vs **20.1%**; p=0.0495)
- FDA has reviewed the latest data submitted by Boston Scientific regarding peri-stent inflammation as seen on transverse DUS and has confirmed that current labeling requires no change

	Eluvia	Zilver PTX	p
<b>24-Month MAE</b>	14.2% (39/275)	20.1% (27/134)	0.1236
Any death at 1 month	0%	0%	Undef
Target limb major amputation	1.5% (4/275)	0.7% (1/134)	>0.99
TLR	13.5% (37/275)	20.1% (27/134)	0.0803
<b>Clinically-driven TLR</b>	<b>12.7% (35/275)</b>	<b>20.1% (27/134)</b>	<b>0.0495</b>
Non-clinically-driven TLR	0.7% (2/275)	0.0% (0/134)	>0.99
Stent thrombosis	3.1% (9/295)	4.1% (6/145)	0.5818
<b>Antiplatelet use at 24 months</b>			
Acetylsalicylic acid	87.5% (224/256)	90.4% (113/125)	0.4057
Dual antiplatelet therapy	53.9% (138/256)	52.8% (66/125)	0.8389

Intention to treat. Clinical Events Committee-adjudicated adverse events included major adverse events (MAE), all deaths, and stent thrombosis. MAEs defined as all causes of death through 1 month, target limb major amputation through 24 months, and target lesion revascularization (TLR) through 24 months. Dual antiplatelet therapy recorded as acetylsalicylic acid and one of clopidogrel, ticlopidine, prasugrel or ticagrelor. DUS, duplex ultrasound.



IMPERIAL RCT Subgroups:

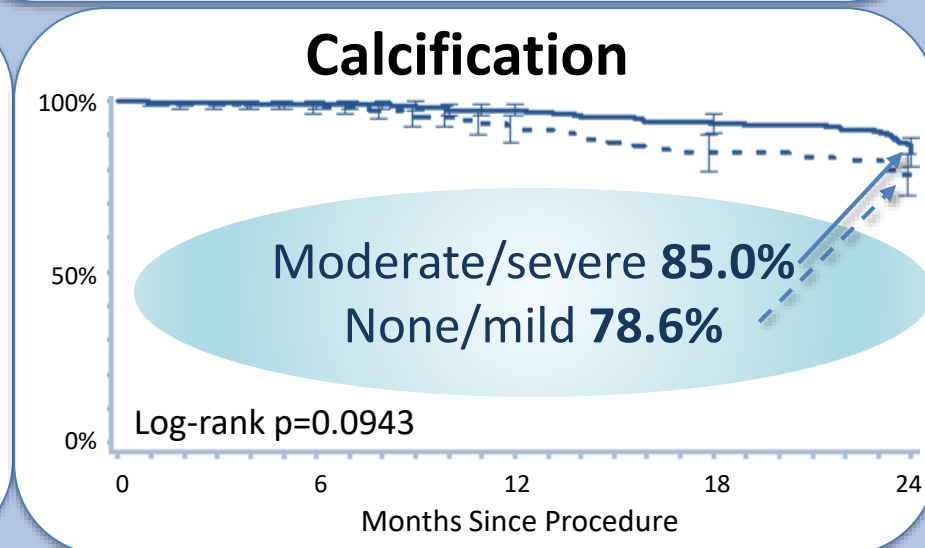
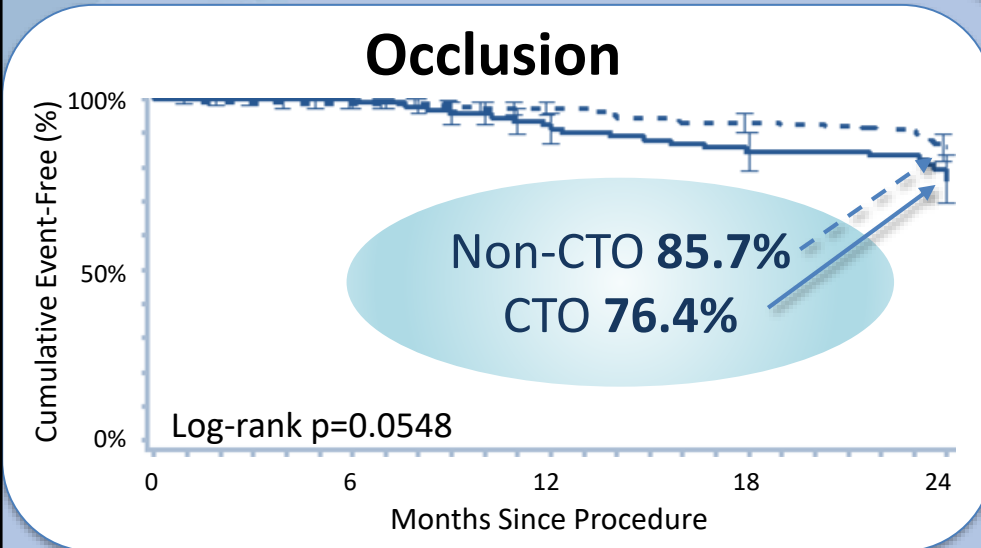
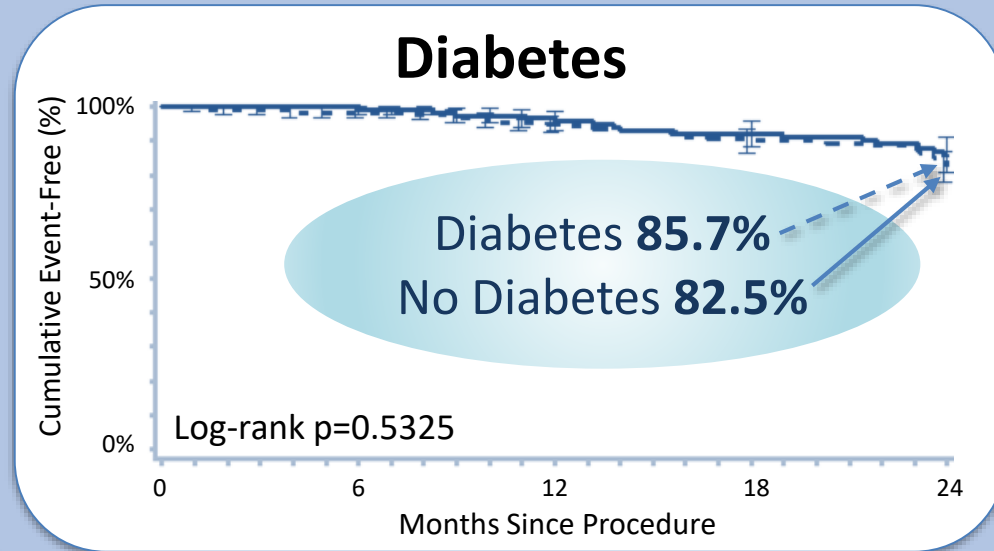
Occlusion, Calcification, Diabetes

**2 YEAR RESULTS**

# Primary Patency at 24 Months

## Eluvia Treatment Arm

- High patency rates for patients treated with Eluvia DES, regardless of lesion or patient complexity



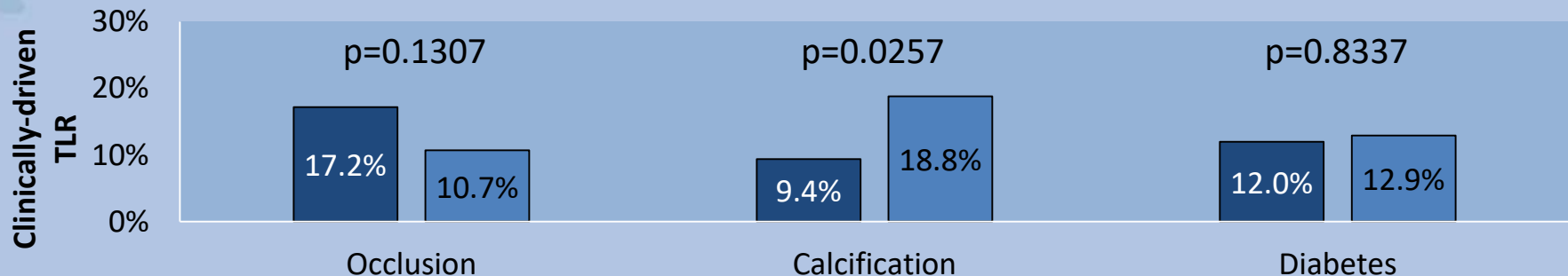
# Safety at 24 Months

## Occlusion, Calcification, Diabetes

- For patients treated with Eluvia, similar MAE rates regardless of lesion or patient complexity
  - Significantly lower CD-TLR rate for moderate/severe calcification vs none/mild

### Eluvia Drug-eluting Stent Arm

	Occlusion		Calcification			Diabetes			
	Yes	No	Mod/Sev	None/ Mild	p	Medically-treated	No	p	
	(n=96)	(n=212)		(n=112)					(n=116)
<b>Target limb major amputation</b>	1.1%	1.6%	>0.99	1.2%	2.0%	0.6303	3.0%	0.6%	0.1554
<b>TLR</b> (CD-TLR & non-CD-TLR)	17.2%	11.8%	0.2169	10.6%	18.8%	0.0566	13.0%	13.5%	0.9083
<b>Stent thrombosis</b>	4.3%	2.5%	0.4681	2.2%	4.7%	0.2967	0.9%	4.7%	0.0919



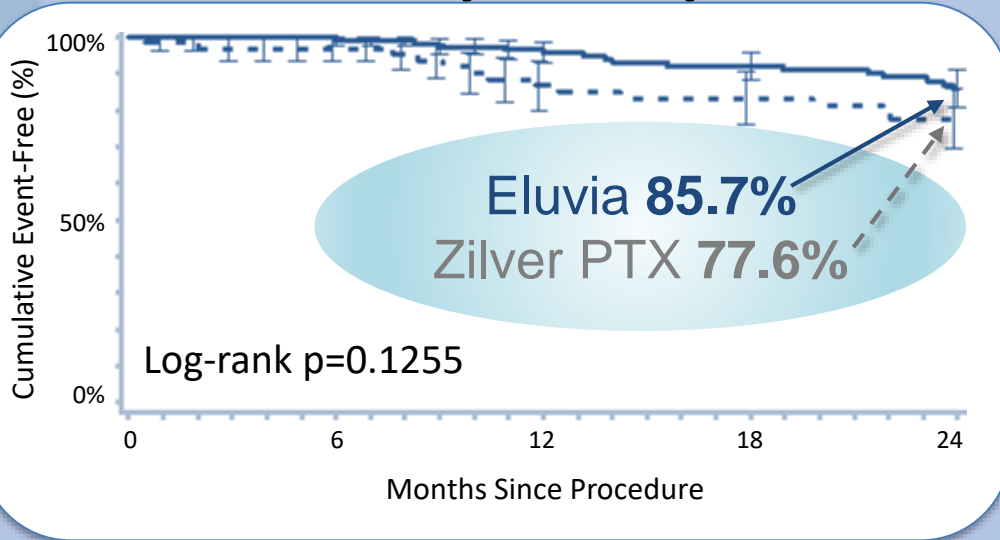
Intention to treat. Clinical Events Committee-adjudicated adverse events included target limb major amputation, target lesion revascularization (TLR), and stent thrombosis.

# 24 Month Results

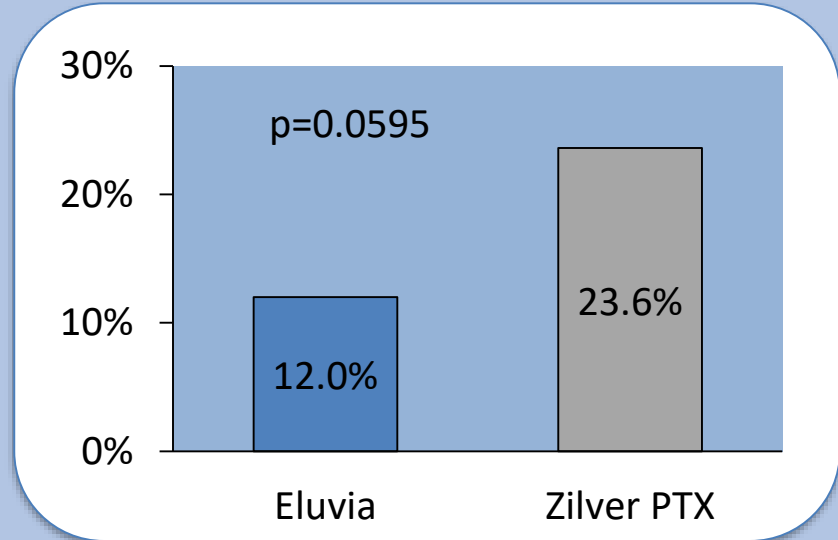
## Diabetes (Eluvia vs Zilver PTX)

	Eluvia (n=116)	Zilver PTX (n=64)	p
Target limb major amputation	3.0%	1.8%	>0.99
TLR (CD-TLR & non-CD-TLR)	13.0%	23.6%	0.0899
<b>Stent thrombosis</b>	0.9%	8.2%	0.0212

### Kaplan-Meier Analysis of Primary Patency



### Clinically-Driven TLR



# Conclusions

- Corrected 1-year time-to-event analysis of primary patency confirms the original effectiveness conclusion of statistically significant improvement in primary patency for patients treated with Eluvia, with no impact on safety
- Through 24 months:
  - Significantly lower clinically-driven TLR rate for Eluvia vs Zilver PTX (**12.7%** vs **20.1%**;  $p=0.0495$ )
  - Excellent primary patency rate sustained with Eluvia DES (**83.0%** KM estimate)
  - High patency rates for patients treated with Eluvia, regardless of lesion or patient complexity
  - Low mortality rate at 24 months

The logo for LINC (Lancaster Heart Institute) features the letters 'LINC' in a white, sans-serif font. The letters are positioned over a stylized graphic of a heart or flame, rendered in shades of blue, red, and yellow. The background of the slide is a light blue gradient with abstract, brush-stroke-like patterns in darker blue and white.

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