

# Outcomes in CLI Patients Treated with DCB: 4-Year Results from the IN.PACT Global Study

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# DISCLOSURE

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I have the following potential conflicts of interest to report:

- ✓ Receipt of grants/research support
- ✓ Receipt of honoraria and travel support
- Participation in a company-sponsored speaker bureau
- Employment in industry
- Shareholder in a healthcare company
- Owner of a healthcare company
- I do not have any potential conflict of interest

# BACKGROUND

- Critical Limb Ischemia (CLI), the most advanced stage of PAD, may lead to amputation affecting quality of life. Without revascularization the amputation risk is >20%.<sup>1</sup>
- Global registries are examining evidence with DCBs in real-world populations<sup>2,3</sup>. However, most study designs have combined claudication with CLI with small numbers of CLI patients.
- There are very limited studies that reported long-term revascularization rates in CLI patients with femoropopliteal lesions. From these limited data, 3-year freedom from TLR ranges from 57% - 72% after endovascular revascularization.<sup>4,5</sup>

1. Abu Dabrh, A.M. et al. J Vasc Surg 2015

2. Jaff M. IN.PACT Global 1 Year Results, presented at VIVA 2016

3. Zeller T. ILLUMENATE Global 1Year Results, presented at LINC 2017

4. Giannopoulos, S et al., J Endovasc Ther. 2020;1526602820935611. doi: 10.1177/1526602820935611

5. Torsello et al., J Endovasc Ther. 2020 Jun 25;1526602820931477. doi: 10.1177/1526602820931477

# IN.PACT GLOBAL STUDY

## OVERVIEW

Real-world, prospective, multicenter, single arm, independently-adjudicated femoropopliteal study\*



- 1535 patients consented
- 64 sites in EU, Mid-East, Latin America, Asia
- Independent adjudication by Clinical Events Committee<sup>1</sup>
- Prospective subset analysis with core lab<sup>2</sup> reported results (*de novo* ISR, long lesions  $\geq 15$  cm, CTOs  $\geq 5$  cm)
- Additional safety and effectiveness data was collected to assess a 150 mm DCB

Complex Lesions intended to allow for evaluation of the IN.PACT™ Admiral™ drug-coated balloon (DCB) in a complex, real-world patient population

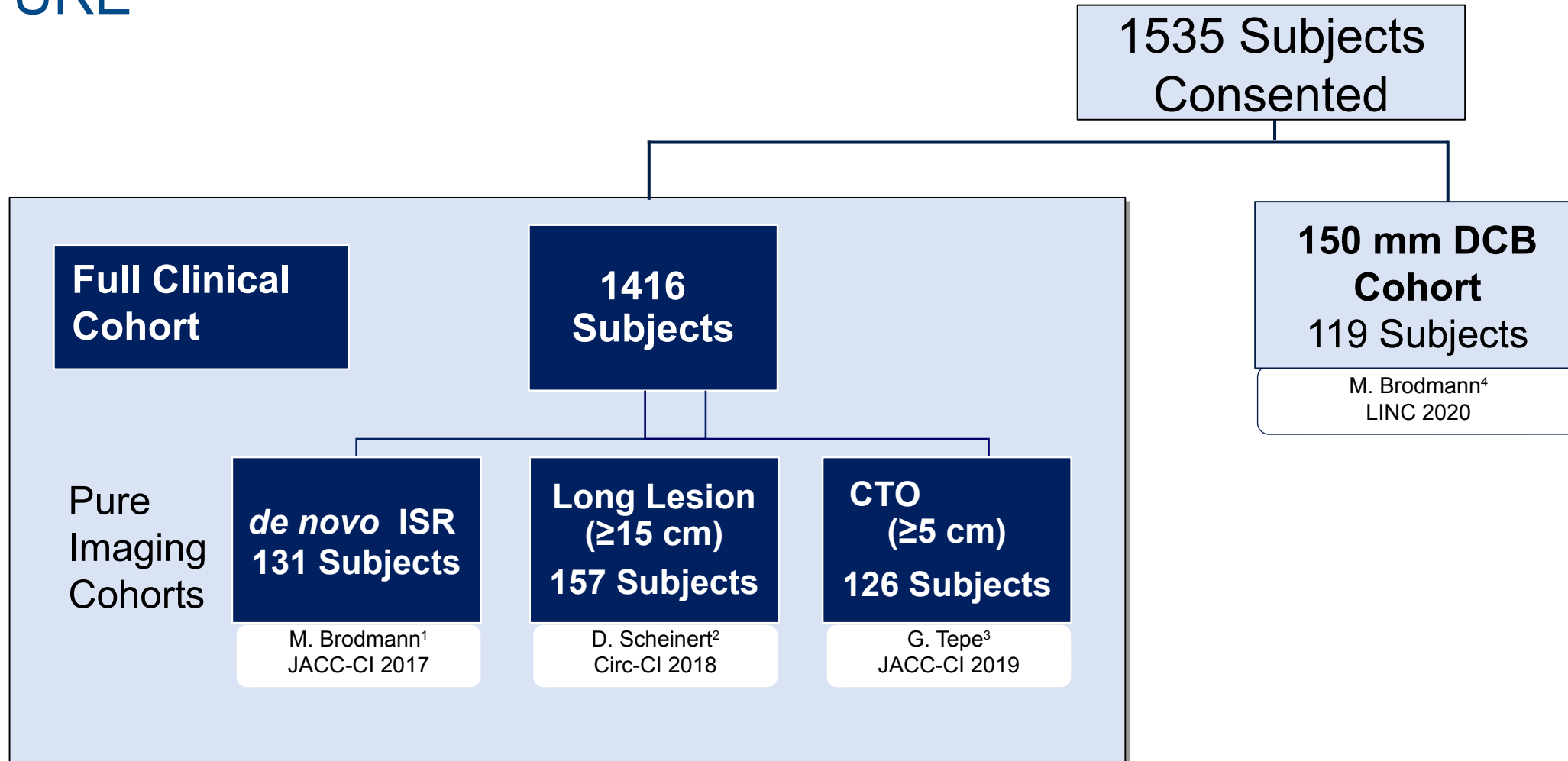
✓ Bilateral disease	✓ SFA and Popliteal Artery	✓ RC 2-4
✓ Multiple lesions	✓ TASC A,B,C,D	✓ De novo ISR, Long Lesions, CTOs

\* Sponsored by Medtronic plc

1. Independent adjudication performed by Syntactx Clinical Events Committee, New York, NY, US,

2. VasCore DUS Core Lab, Boston, MA, US, and SynvaCor Angiographic Core Lab, Springfield, IL, US

# IN.PACT GLOBAL STUDY ARCHITECTURE



**This presentation includes outcome data on the 1406 ITT subjects who comprise the IN.PACT Global Clinical Cohort**

1. Brodmann, M. et al., J Am Coll Cardiol - Cardiovascular Interv. 2017; 20: 2113-2123.  
2. Scheinert D, et al. Circulation - Cardiovasc Interv 2018; 11: e005654.

3. Tepe G, et al. J Am Coll Cardiol - Cardiovasc Interv. 2019; 12: 484-493  
4. Brodmann M, IN.PACT Global 150mm Cohort 3-Year Outcomes, LINC 2020

# IN.PACT GLOBAL STUDY

## BLINDED, INDEPENDENTLY ASSESSED OUTCOMES

### Primary Efficacy Endpoint

- Freedom from clinically-driven target lesion revascularization<sup>1</sup> within 12 months

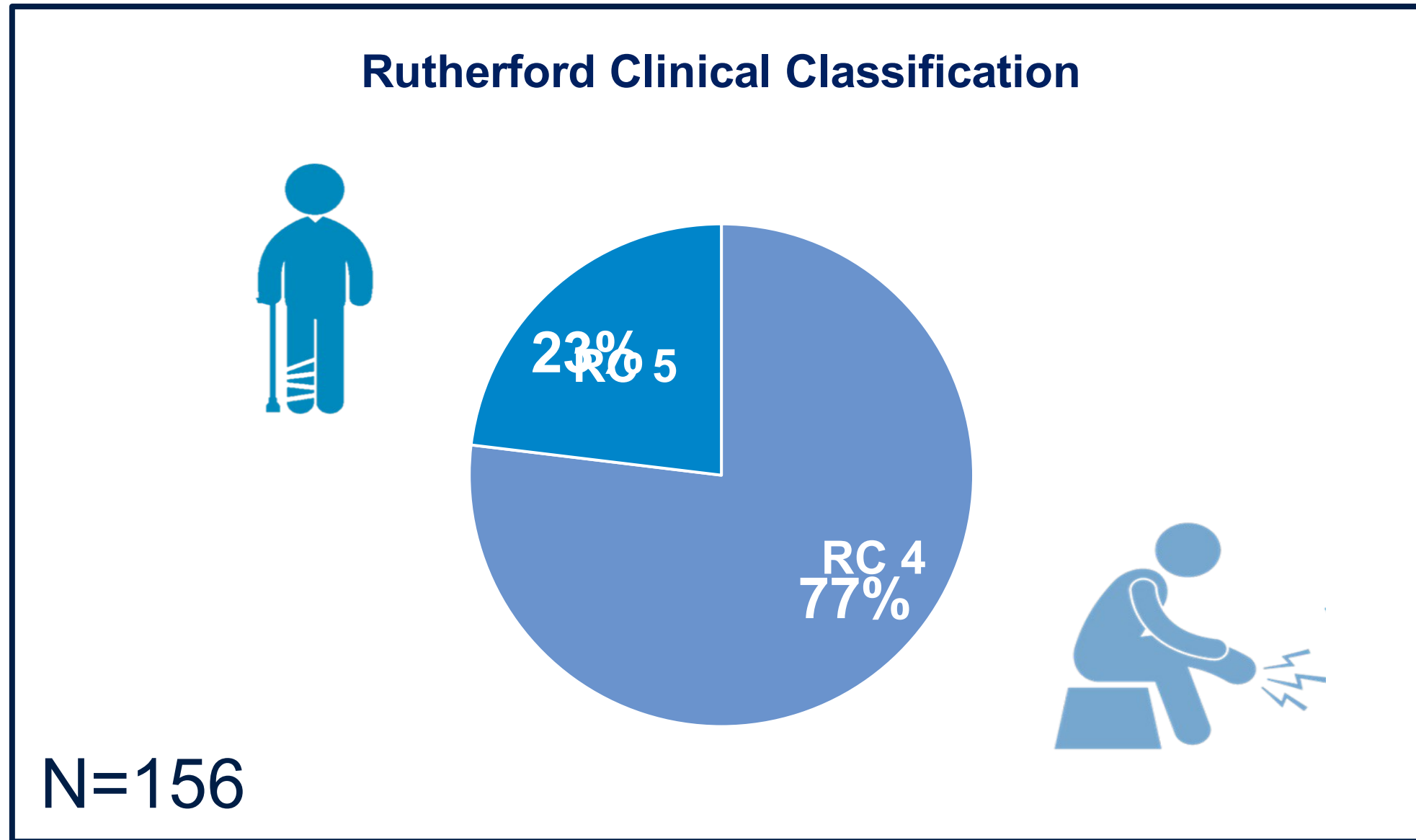
### Primary Safety Endpoint

- Freedom from device- and procedure-related death through 30 days, and freedom from target limb major amputation & clinically-driven target vessel revascularization<sup>2</sup>

1. Any re-intervention within the target lesion(s) due to symptoms or drop of ABI of  $\geq 20\%$  or  $> 0.15$  when compared to post-index procedure baseline ABI.  
2. Any re-intervention within the target vessel due to symptoms or drop of ABI of  $\geq 20\%$  or  $> 0.15$  when compared to post-index procedure baseline ABI

# IN.PACT GLOBAL STUDY: RC 4-5 SUBGROUP

## BASELINE CLINICAL CHARACTERISTICS



# IN.PACT GLOBAL STUDY: RC 4-5 SUBGROUP

## BASELINE CLINICAL CHARACTERISTICS

Baseline Characteristics	RC 4 (N=120 Subjects)	RC 5 (N=36 Subjects)	P-value
Age (Y, Mean $\pm$ SD)	71.1 $\pm$ 10.6	74.2 $\pm$ 9.3	0.118
Male (%)	60.8% (73/120)	38.9% (14/36)	0.023
Obesity (BMI $\geq$ 30 kg/m <sup>2</sup> %)	15.5% (18/116)	27.8% (10/36)	0.138
Diabetes (%)	51.7% (62/120)	63.9% (23/36)	0.253
Hyperlipidemia (%)	61.3% (73/119)	65.7% (23/35)	0.695
Current Smoker (%)	25.8% (31/120)	11.1% (4/36)	0.071
Hypertension (%)	85.8% (103/120)	83.3% (30/36)	0.789
Coronary Heart Disease (%)	43.9% (47/107)	44.1% (15/34)	1.000
Carotid Artery Disease (%)	18.4% (16/87)	16.1% (5/31)	1.000
Renal Insufficiency <sup>1</sup> (%)	19.1% (21/110)	24.1% (7/29)	0.604
ABI <sup>2</sup>	0.575 $\pm$ 0.266	0.692 $\pm$ 0.194	0.007

1. Baseline serum creatinine  $\geq$  1.5 mg/dl

2. ABI for all target limbs treated during the 1st index procedure are included (can be bilateral)



# IN.PACT GLOBAL STUDY: RC 4-5 SUBGROUP

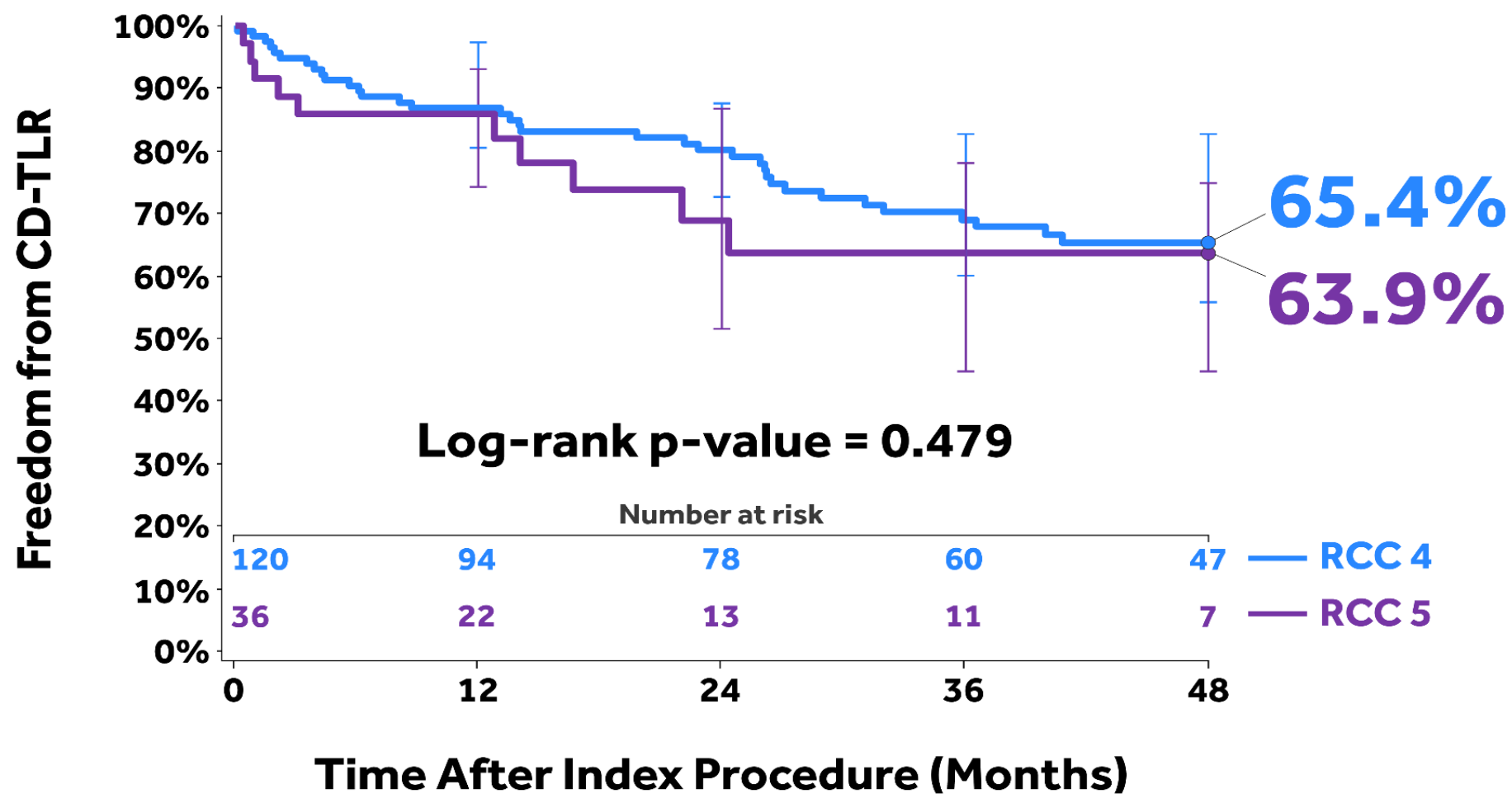
## BASELINE LESION/PROCEDURE CHARACTERISTICS

	RC 4 (N=120 Subjects) (N=146 Lesions)	RC 5 (N=36 Subjects) (N=48 Lesions)	P-value
<b>Lesion Type: % (n)</b>			
De novo	75.3% (110/146)	70.8% (34/48)	0.623
Restenotic (non-stented)	7.5% (11/146)	12.5% (6/48)	
In-Stent Restenosis	17.1% (25/146)	16.7% (8/48)	
<b>Lesion Length (cm ± SD)</b>	14.62 ± 10.99	11.87 ± 8.86	0.117
<b>Total Occlusions % (n)</b>	43.2% (63/146)	35.4% (17/48)	0.400
<b>Calcification % (n)</b>	74.7% (109/146)	83.3% (40/48)	0.243
Severe Calcification % (n)	10.3% (15/146)	14.6% (7/48)	0.435
<b>Flow Limiting Dissections % (n)</b>			
D	3.4% (5/146)	0.0% (0/48)	0.592
E	0.0% (0/146)	4.2% (2/48)	
F	2.1% (3/146)	0.0% (0/48)	
<b>Provisional Stenting % (n)</b>	18.5% (27/146)	25% (12/48)	0.625

# IN.PACT GLOBAL STUDY: RC 4-5 SUBGROUP

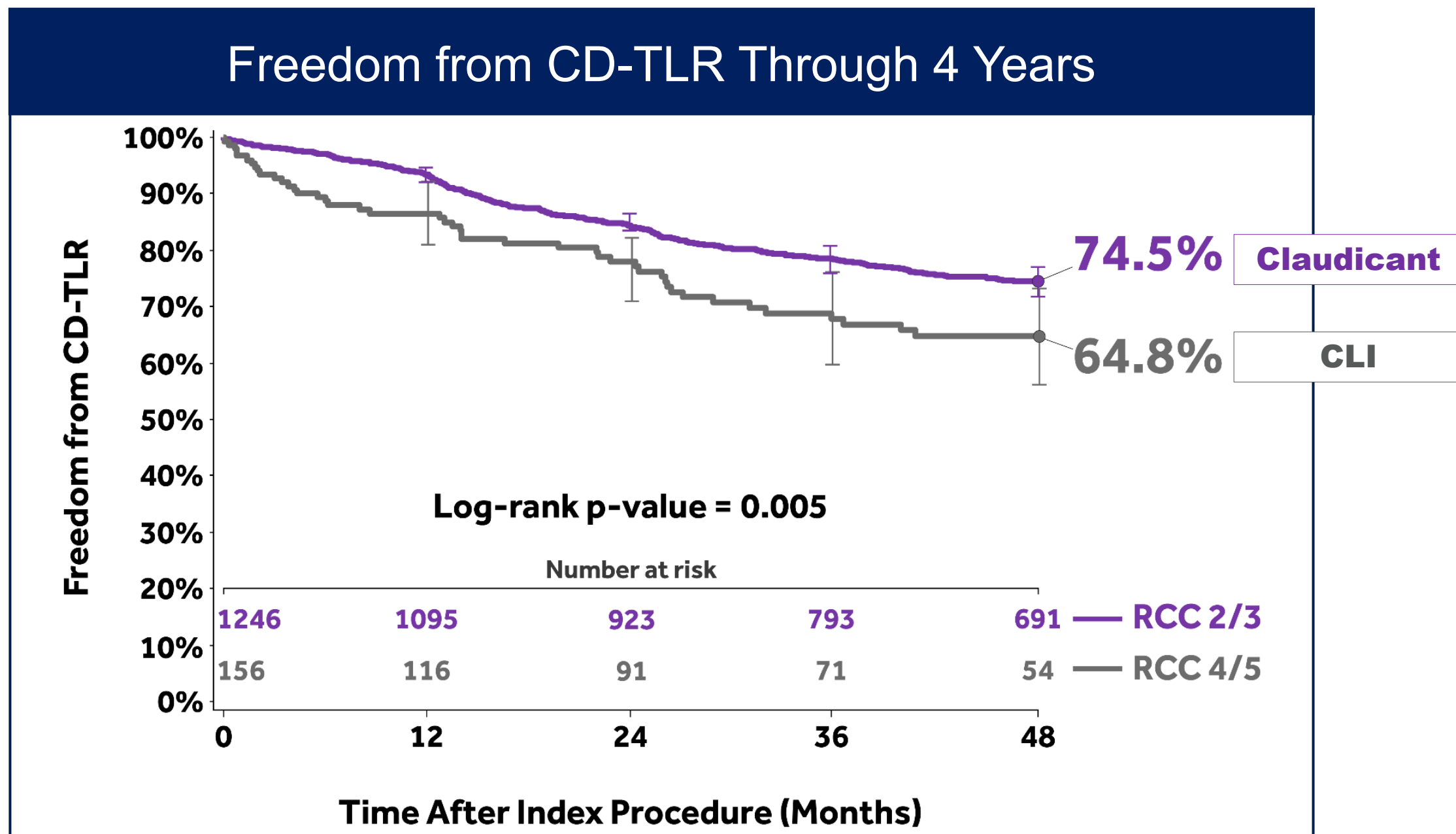
## EFFECTIVENESS OUTCOMES

### Freedom from CD-TLR Through 4 Years



# IN.PACT GLOBAL STUDY: RC 4-5 SUBGROUP

## EFFECTIVENESS OUTCOMES: CLAUDICANT VERSUS CLI



# IN.PACT GLOBAL STUDY: RC 4-5 SUBGROUP

## ADDITIONAL EFFECTIVENESS THROUGH 4 YEARS

4-Year Outcomes*	RC 4 (N=120 Subjects)	RC 5 (N=36 Subjects)	P-value
CD-TLR <sup>1</sup>	34.6% (35)	36.1% (10)	0.479
Any TLR <sup>2</sup>	34.6% (35)	36.1% (10)	0.479

\* For Clinical/Safety endpoints, percentages are based on Kaplan-Meier Estimate (number of patients with events)

1. Clinically-driven TLR adjudicated by an independent Clinical Event Committee, blinded to the assigned treatment based on any re-intervention at the target lesion due to symptoms or drop of ABI of  $\geq 20\%$  or  $>0.15$  when compared to post-procedure baseline ABI

2. Any TLR includes clinically-driven and incidental or duplex driven TLR

# IN.PACT GLOBAL STUDY: RC 4-5 SUBGROUP

## ADDITIONAL EFFECTIVENESS THROUGH 4 YEARS

4-Year Outcomes*	RC 4 (N=120 Subjects)	RC 5 (N=36 Subjects)	P-value
CD-TLR <sup>1</sup>	34.6% (35)	36.1% (10)	0.479
Any TLR <sup>2</sup>	34.6% (35)	36.1% (10)	0.479
Time to First CD-TLR within 1440 days ± SD	496.1 ± 387.5	290.3 ± 281.3	0.126

\* For Clinical/Safety endpoints, percentages are based on Kaplan-Meier Estimate (number of patients with events)

1. Clinically-driven TLR adjudicated by an independent Clinical Event Committee, blinded to the assigned treatment based on any re-intervention at the target lesion due to symptoms or drop of ABI of ≥20% or >0.15 when compared to post-procedure baseline ABI

2. Any TLR includes clinically-driven and incidental or duplex driven TLR

# IN.PACT GLOBAL STUDY: RC 4-5 SUBGROUP

## SAFETY OUTCOMES THROUGH 4 YEARS

4-Year Outcomes*	RC 4 (N=120 Subjects)	RC 5 (N=36 Subjects)	Log rank P-value
Primary Safety Composite <sup>1</sup>	59.9% (41)	59.4% (12)	0.390
Major Adverse Events <sup>2</sup>	57.0% (65)	63.3% (19)	0.231
All-cause Death <sup>3</sup>	30.8% (34)	37.4% (10)	0.405
CD-TVR	37.6% (38)	36.1% (10)	0.617
<b>Target Limb Major Amputation</b>	3.0% (3)	2.9% (1)	0.822
Thrombosis	8.7% (9)	10.5% (3)	0.680

\* For Clinical/Safety endpoints, percentages are based on Kaplan-Meier Estimate (number of patients with events)

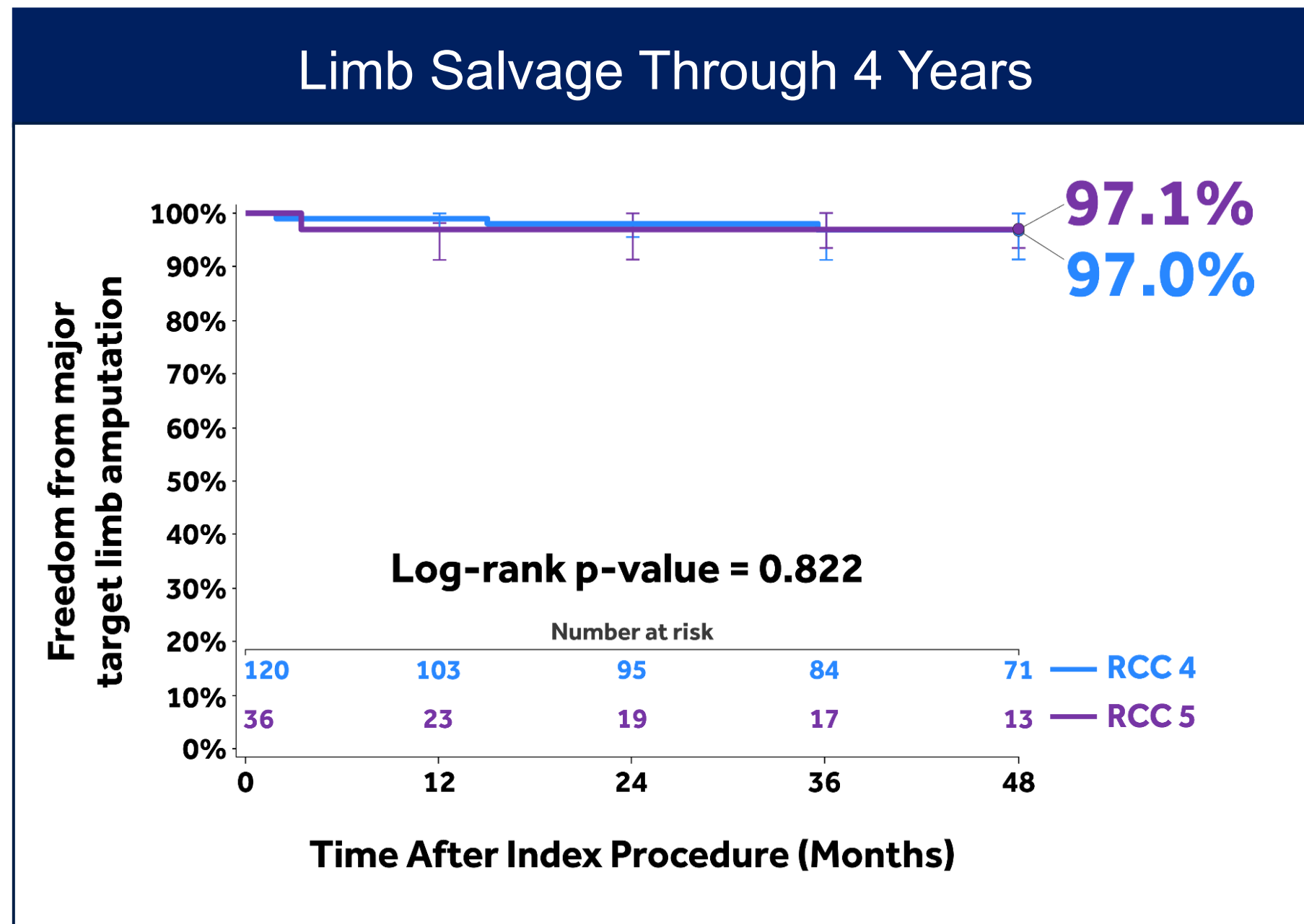
1. Safety composite endpoint consists of: Freedom from device- and procedure-related to 30 days, freedom from target limb major amputation within 48 months; and freedom from clinically-driven TVR within 48 months.

2. Major Adverse Events (MAE) defined as all-cause death, clinically-driven TVR, major target limb major amputation, thrombosis at the target lesion site at 48 months.

3. CEC adjudicated deaths, only

# IN.PACT GLOBAL STUDY: RC 4-5 SUBGROUP

## SAFETY OUTCOMES THROUGH 4 YEARS



# IN.PACT GLOBAL STUDY: RUTHERFORD CLASS (RC) 4-5 SUBGROUP SUMMARY

- This IN.PACT Global 4-year analysis included 156 subjects with RC 4-5 allowing for a robust examination of a CLI population in a real-world study
- Long-term safety and effectiveness through 4 years confirms strong performance of the IN.PACT Admiral DCB in a clinically complex CLI subgroup;
  - Freedom from CD-TLR 65.4% (RC 4)
  - Freedom from CD-TLR 63.9% (RC 5)
- Remarkable limb salvage is demonstrated through 4 years;
  - Freedom from target limb major amputation 97% (RC 4)
  - Freedom from target limb major amputation 97.1% (RC 5)



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