



Setting New Standards for Venous Care

VEITH SYMPOSIUM
November 2024

Nasdaq: NVNO
enVeno.com



Welcome - Robert Berman, CEO

Introduction - Dr. Marc Glickman, Senior Vice President and CMO

Overview: One-Year Data from the SAVVE Pivotal Trial

Dr. Matthew Smeds, St. Louis University

VenoValve Results: CEAP Stratification

Dr. Raghu Motaganahalli – Indiana University

Patient Perspectives

November 20, 2024

One-Year Data of VenoValve Implantation in the SAVVE U.S. Pivotal Trial

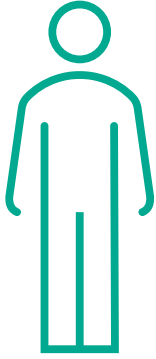
VEITH SYMPOSIUM[®]

Connecting The **Vascular** Community

Presented by
Dr. Matthew Smeds
Professor of Surgery, Division of
Vascular and Endovascular Surgery
St. Louis University

Chronic Venous Insufficiency (CVI): Economic Impact

~2.5M
Potential VV
recipients
the U.S.



~\$30k
Spent on wound care per
patient per year²



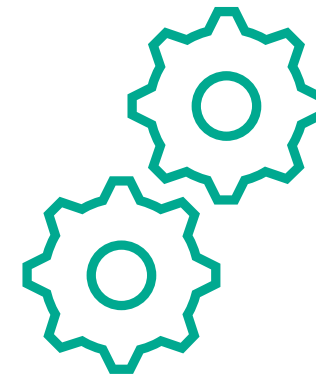
20-40%
1-year ulcer
recurrence¹



~\$3B
Direct medical
costs²



~40%
More workdays
missed³



1. Yost, Mary, The Sage Group, Chronic Venous Disease, Epidemiology, Costs, and Consequences, 2016
2. Sachdev, Ulka, et. al. Suppressed Networks of Inflammatory Mediators Characterize Chronic Venous Insufficiency, Journal of Vascular Surgery: Venous and Lymphatic Disorders, May 2018
3. Rice, J. Bradford, Burden of Venous Leg Ulcers in the United States, Journal of Medical Economics, Volume 17, 2014

CVI: Impact on Quality of Life



Pain, Heaviness, Edema, Ulceration,



Personal Care and Household Chores



Sleep Deprivation and Social Isolation



Reported Rates of Anxiety of up to 30%, Depression of up to 40%¹



QoL Worse than Osteoarthritis, Angina, COPD²

1. Souza Nogueira G, Rodrigues Zanin C, Miyazaki MC, Pereira de Godoy JM. Venous leg ulcers and emotional consequences. Int J Low Extrem Wounds. 2009 Dec;8
2. Kahn SR, Comerota AJ, Cushman M, Evans NS, Ginsberg JS, Goldenberg NA, Gupta DK, Prandoni P, Vedantham S, Walsh ME, Weitz JI; American Heart Association Council on Peripheral Vascular Disease, Council on Clinical Cardiology, and Council on Cardiovascular and Stroke Nursing. The postthrombotic syndrome: evidence-based prevention, diagnosis, and treatment strategies: a scientific statement from the American Heart Association. Circulation. 2014 Oct

Standard of Care = Compression Therapy

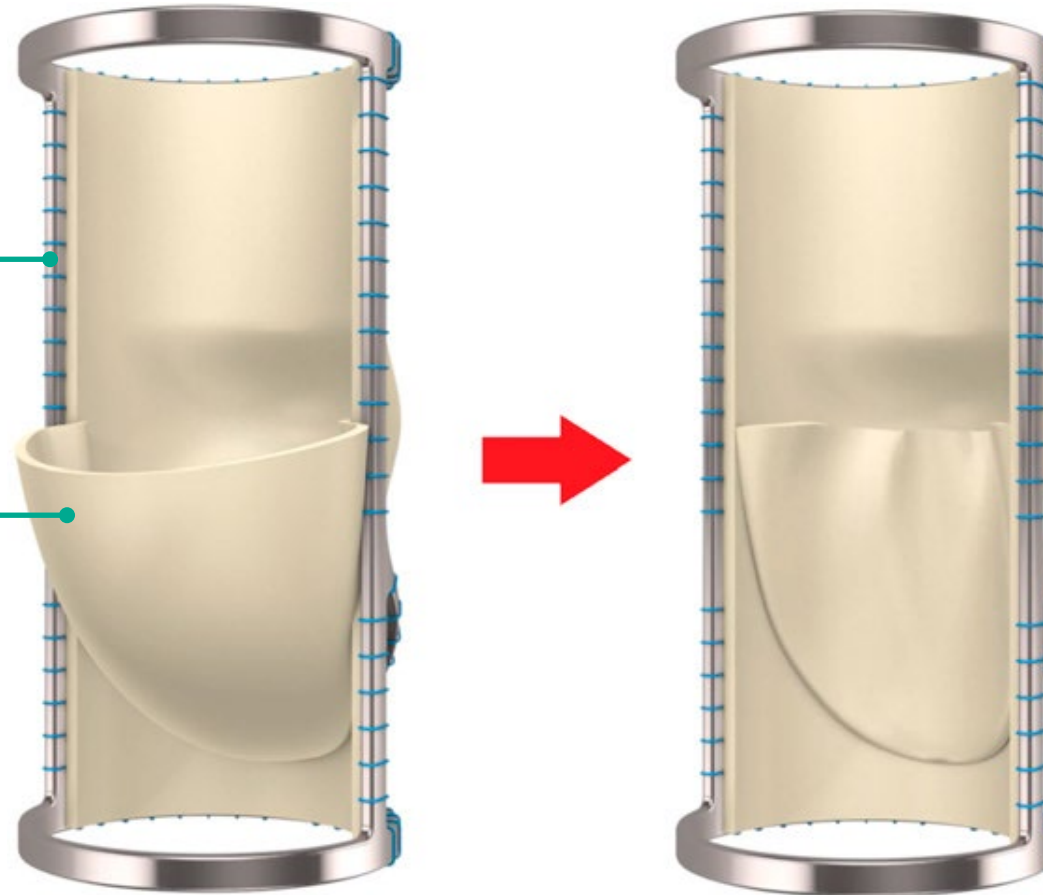


VenoValve: Unique Bioprosthesis

Monocusp Valve

Rigid stainless-steel frame

Porcine aortic valve
noncoronary leaflets

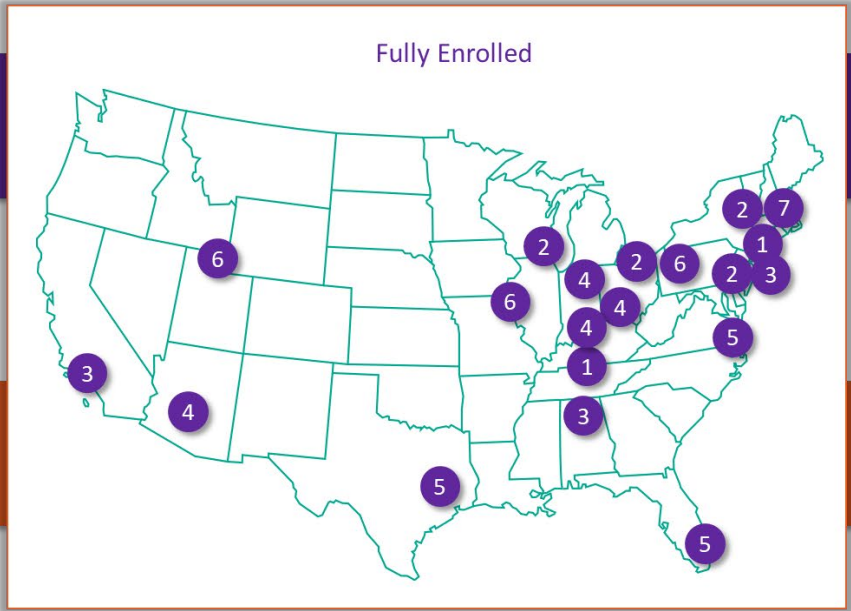


FDA Breakthrough Device Designation

FIH Pilot study
demonstrated sustained
benefit in patients
up to 3 years

75
Patients

21 Clinical Sites

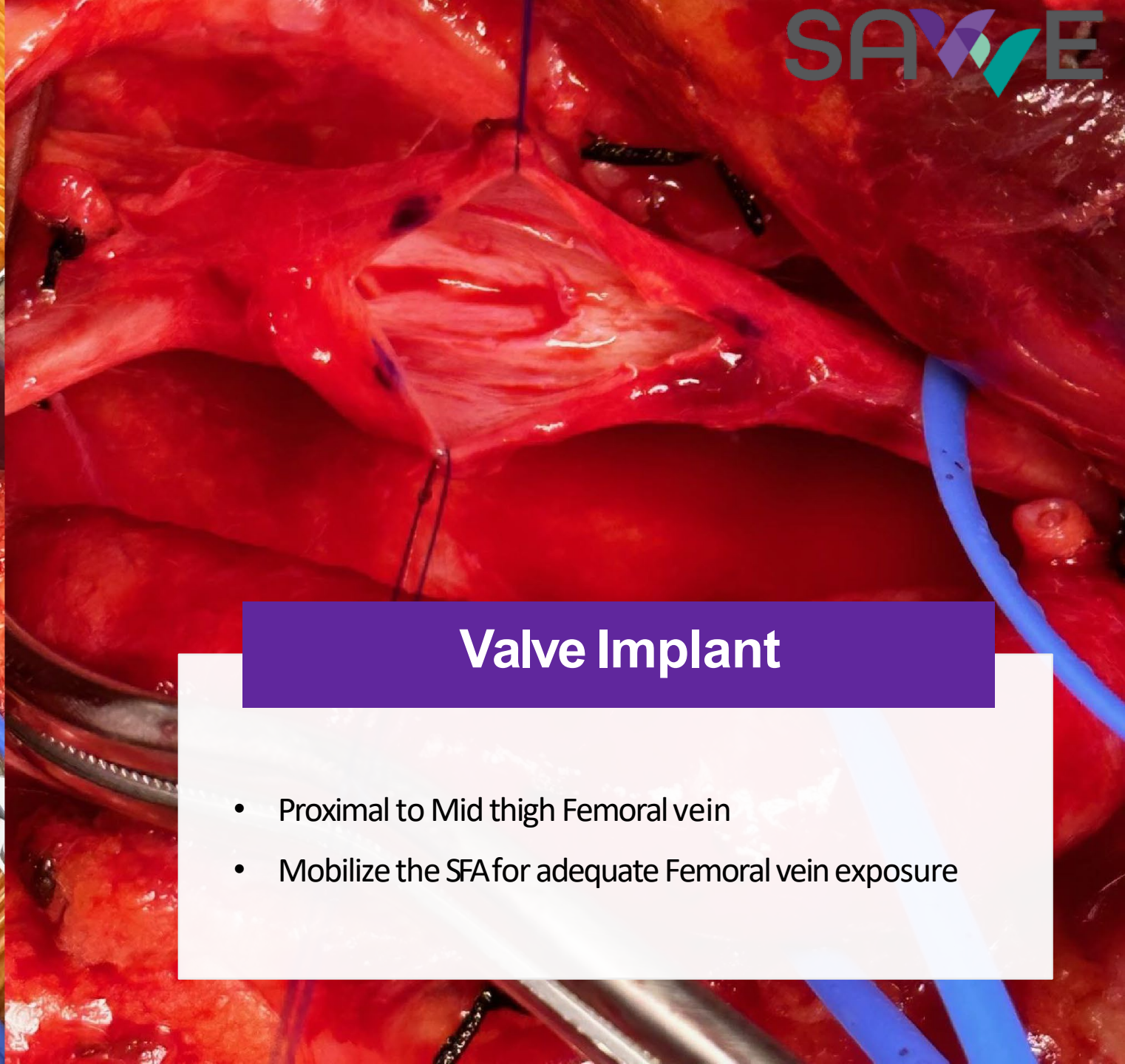
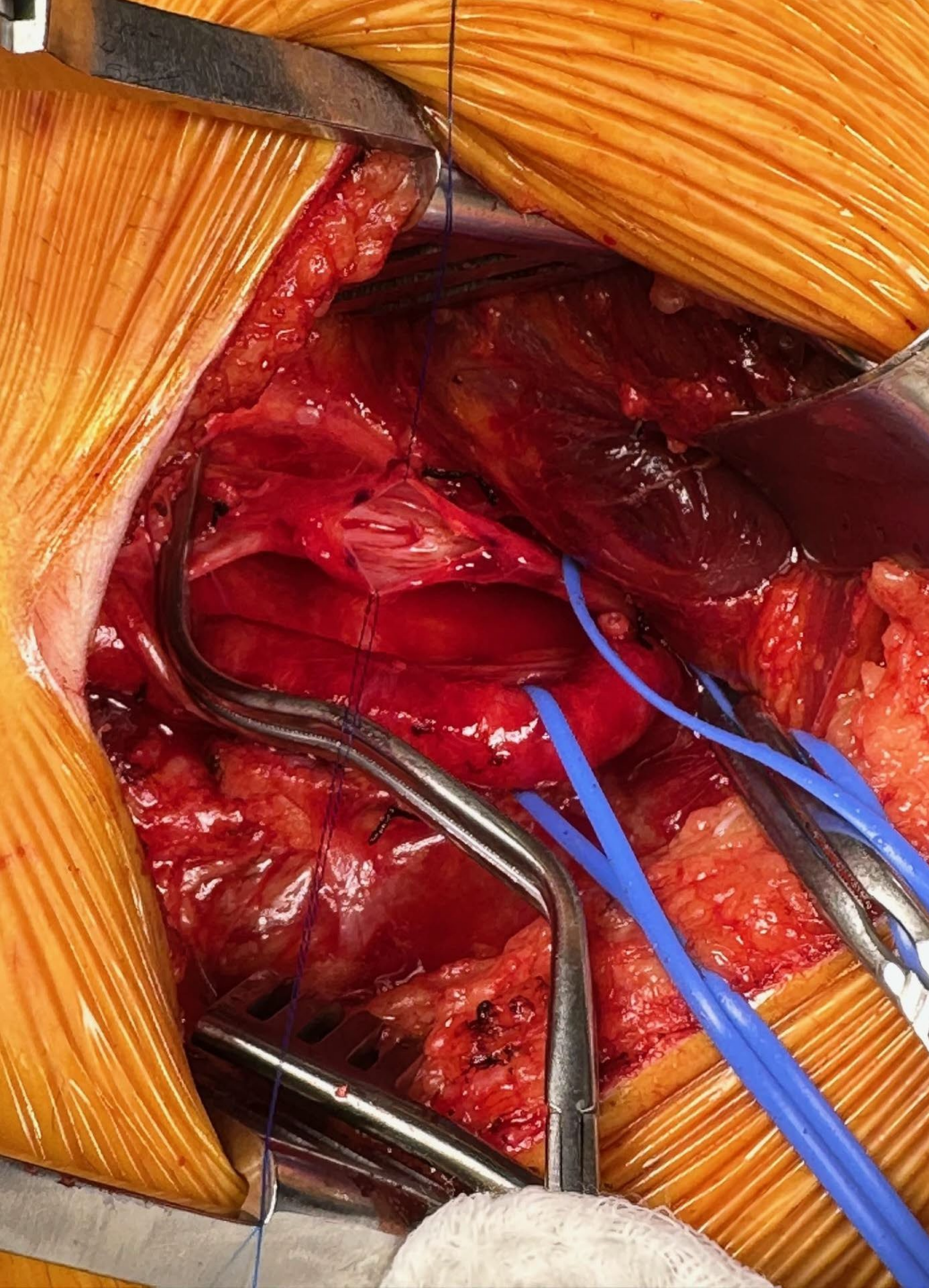


Inclusion

- Failure of at Least 3 Months Standard Care
- Axial Reflux > 1 Second
- CEAP Score: C4b, C4c, C5, C6
- Ability to Ambulate Without Assistance
- ABI >.61
- BMI <40

Exclusion

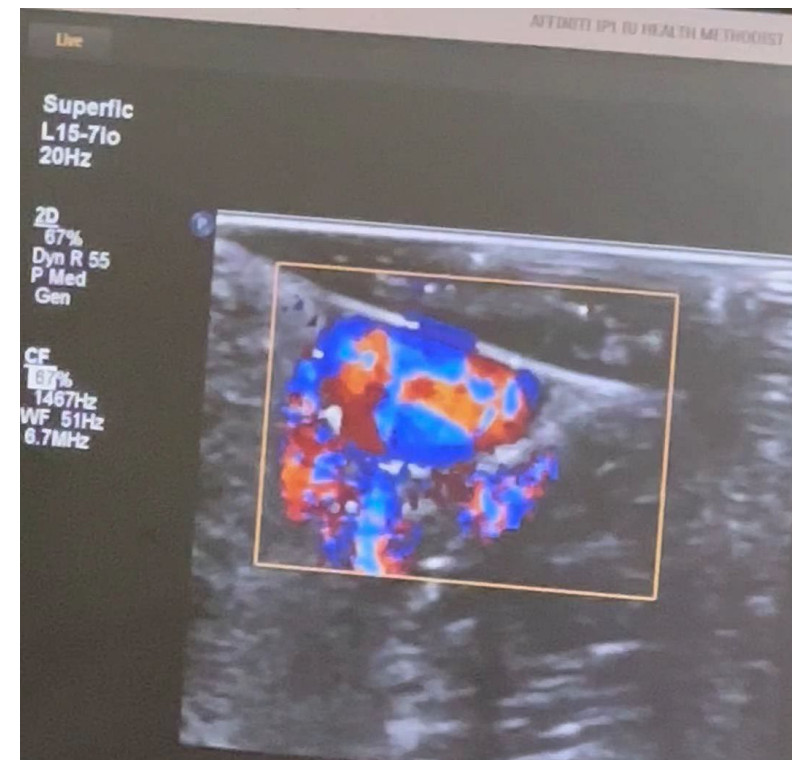
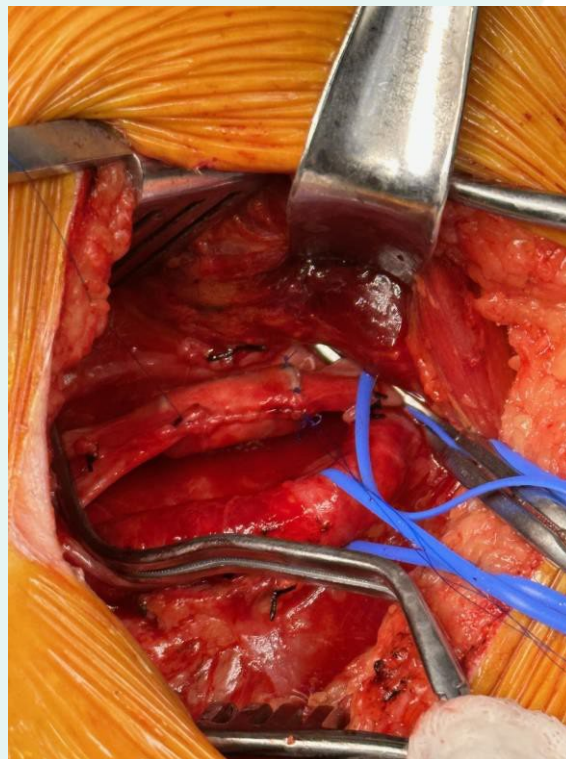
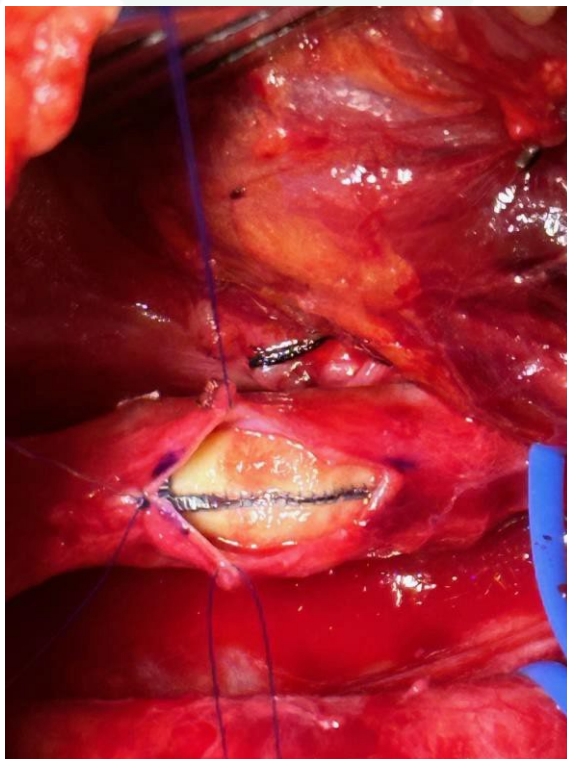
- Hypercoagulable Condition
- Acute Deep Venous Thrombosis or Pulmonary Embolism
- Lymphedema
- Superficial Reflux
- Iliac/IVC Obstruction or Poor Central Venous Flow
- Uncontrolled Diabetes Mellitus
- Sepsis



Valve Implant

- Proximal to Mid thigh Femoral vein
- Mobilize the SFA for adequate Femoral vein exposure

Valve Implant





Demographics

- Age: 62.9 [38-83]
- Male: 80.8% (N=59)
- Race
 - White: 86.3% (N=63)
 - African American: 12.3% (N=9)
 - Other: 1.4% (N=1)
- Mean BMI: 32.4



CEAP Classification

- C4b: 5/73 (6.8%)
- C4c: 5/73 (6.8%)
- C5: 21/73 (28.8%)
- C6: 42/73 (57.5%)
 - **73.8% (N=31/42) of patients with C6 disease had ulceration for > 1 year**



Comorbidities

- Diabetes: 28.8% (N=21)
- Peripheral Artery Disease: 6.8% (N=5)

PROCEDURAL
SUCCESS RATE

97.3%

(N=73/75)

INTRA-OPERATIVE
DEVICE PATENCY

100%

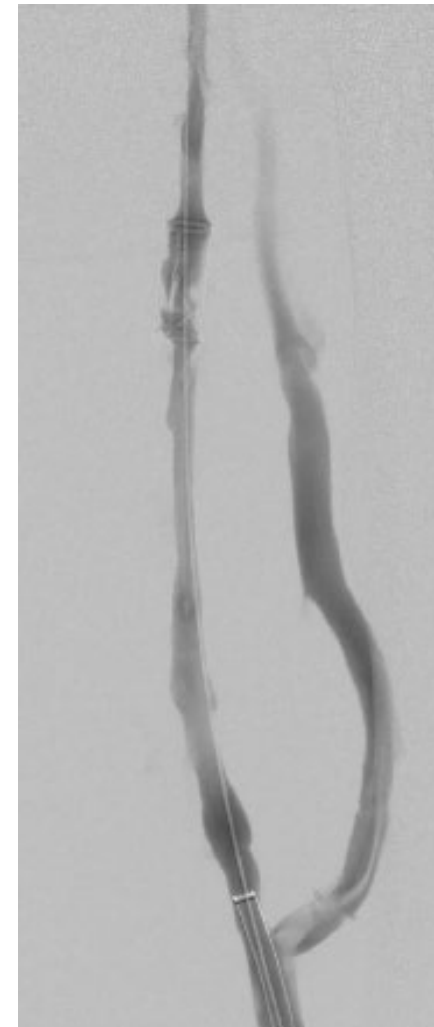
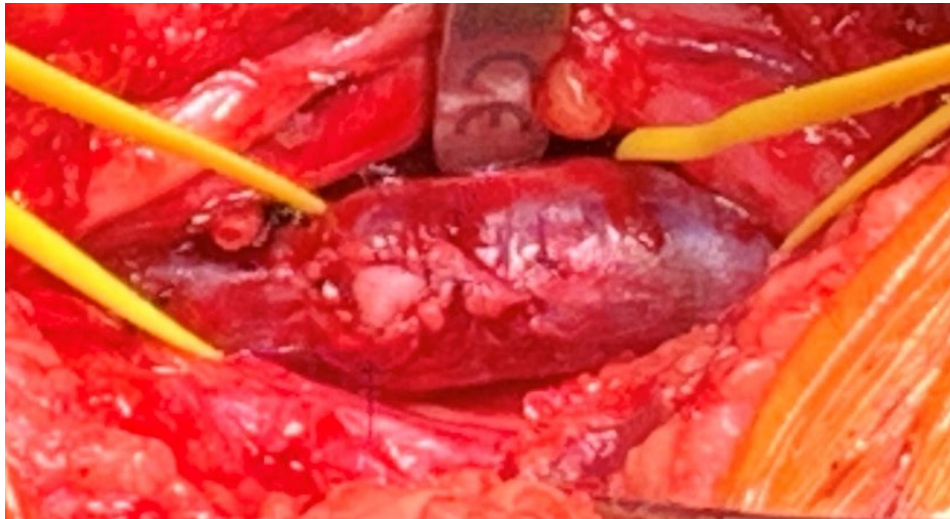
DAYS TO
DISCHARGE

1.2 day

average hospital stay

Mechanical Aspiration Thrombectomy

- Endovascular salvage in 2 cases

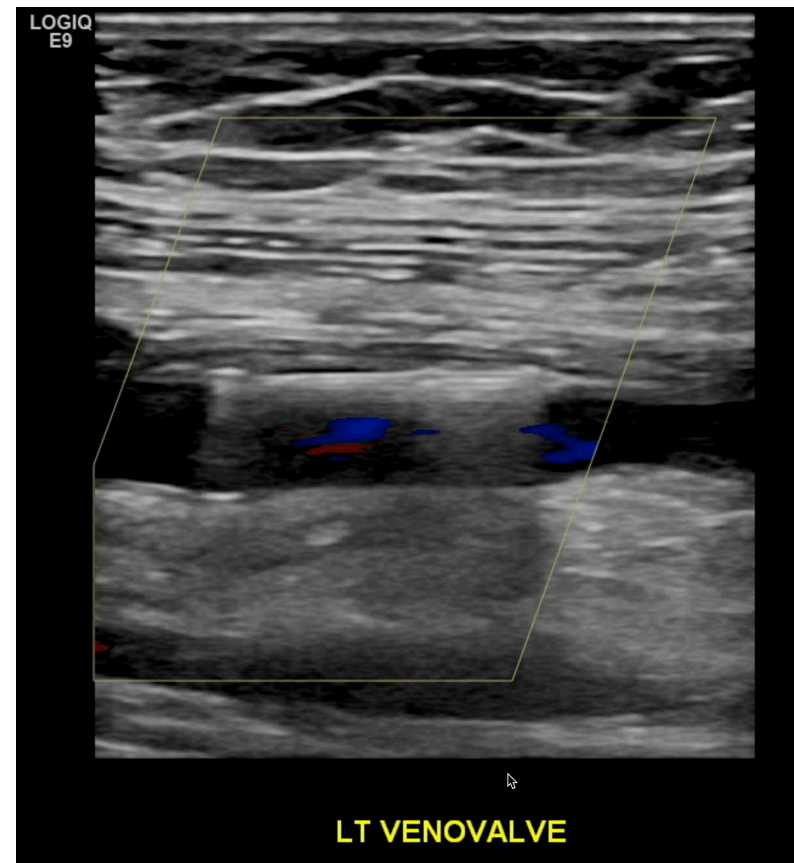




1 Year Results from SAVVE Trial

Device Patency at 1 Year

98.4%
(63/64)



*9 device occlusions. 8 recanalized.

Target Vein Patency Rate*

30 DAYS

90.8%
(59/65)

12 MONTHS

96.8%
(61/63)

**Target Vein Patency Rate defined as absence of color flow in any of four locations of the target vein (femoral vein) where the VenoValve was implanted.*

Major Adverse Events (MAEs) at 1 year



1 DEATH
Unrelated to the VenoValve

10 SURGICAL POCKET
HEMATOMAS
required surgical evacuation

0 PULMONARY
EMBOLISMS

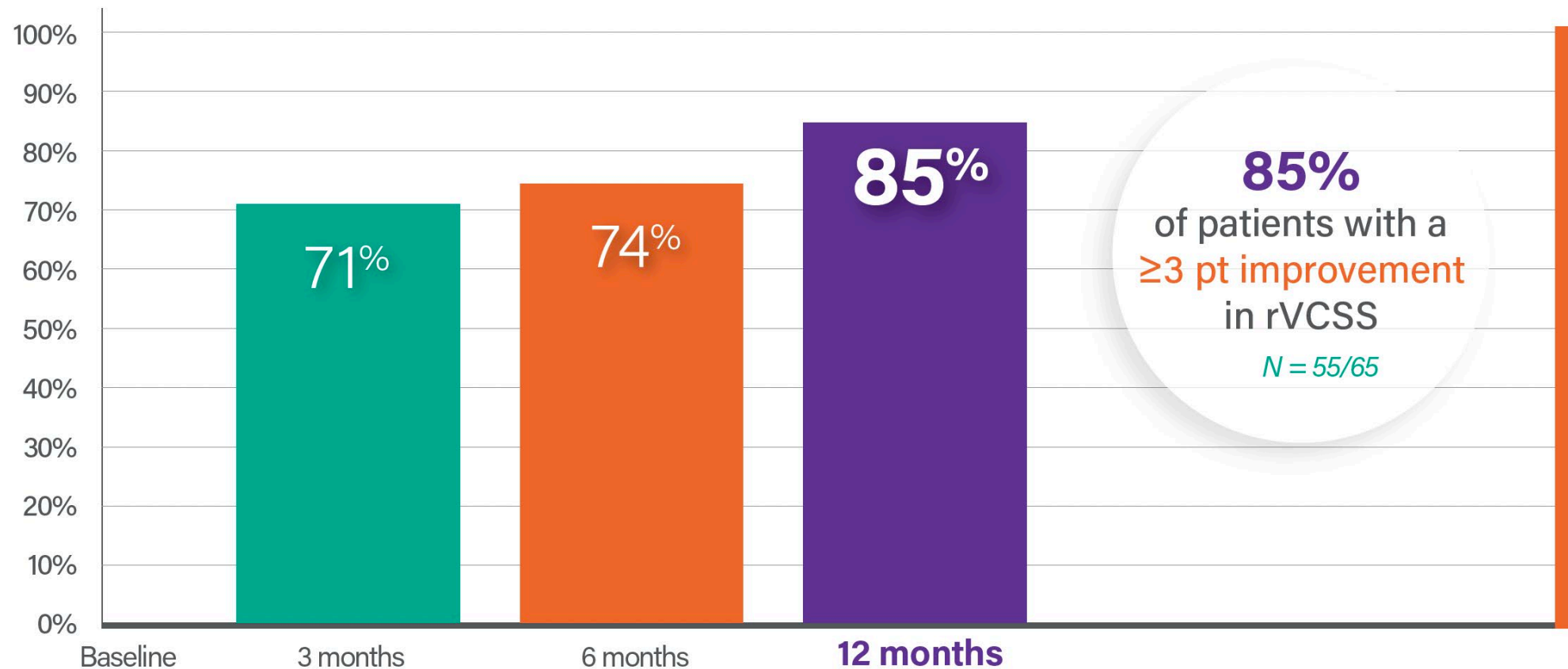
4 OTHER BLEEDS

12 TARGET VEIN
THROMBOSES

7 DEEP WOUND
INFECTIONS

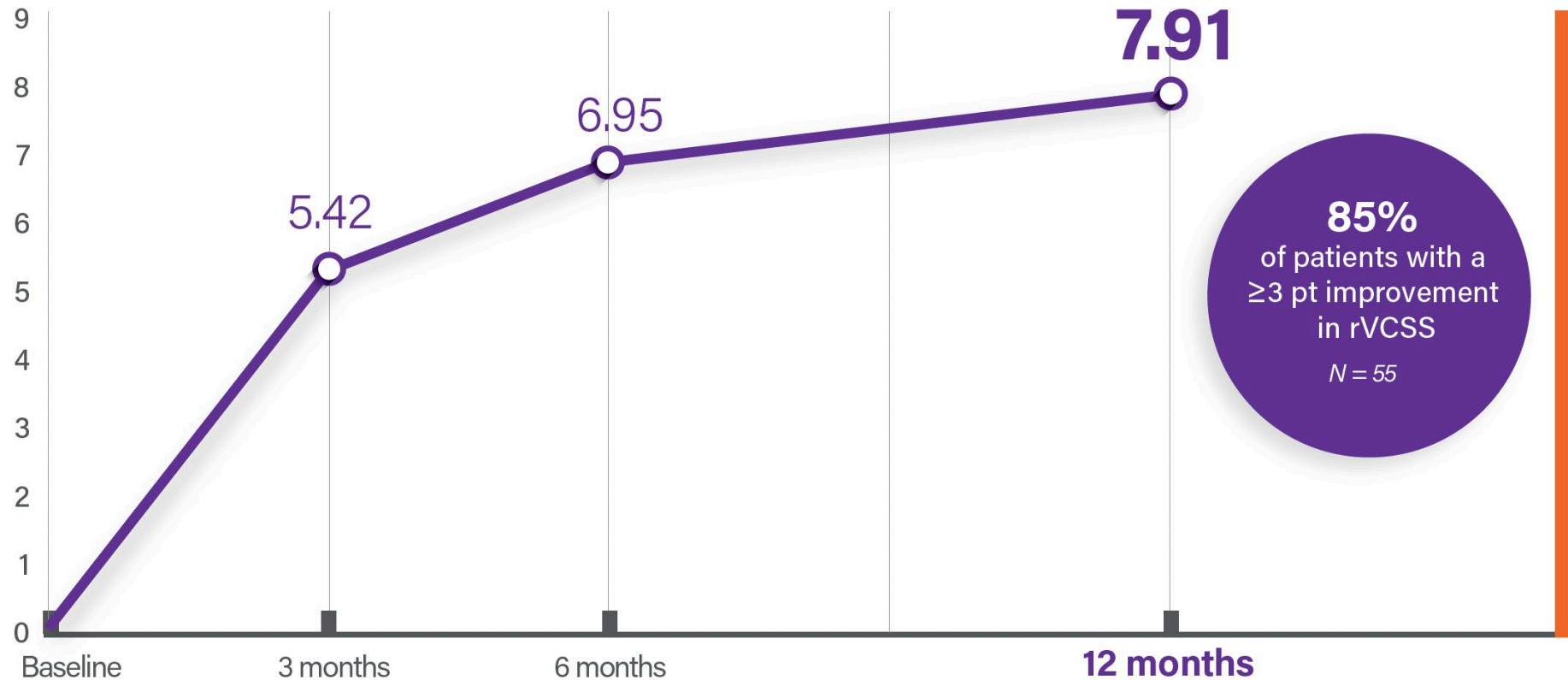
17 out of 18 subjects with MAEs through 30 days not impacted
and achieved clinical meaningful benefit at 1 year

Percentage of Patients with Clinical Meaningful Benefit at Follow Up

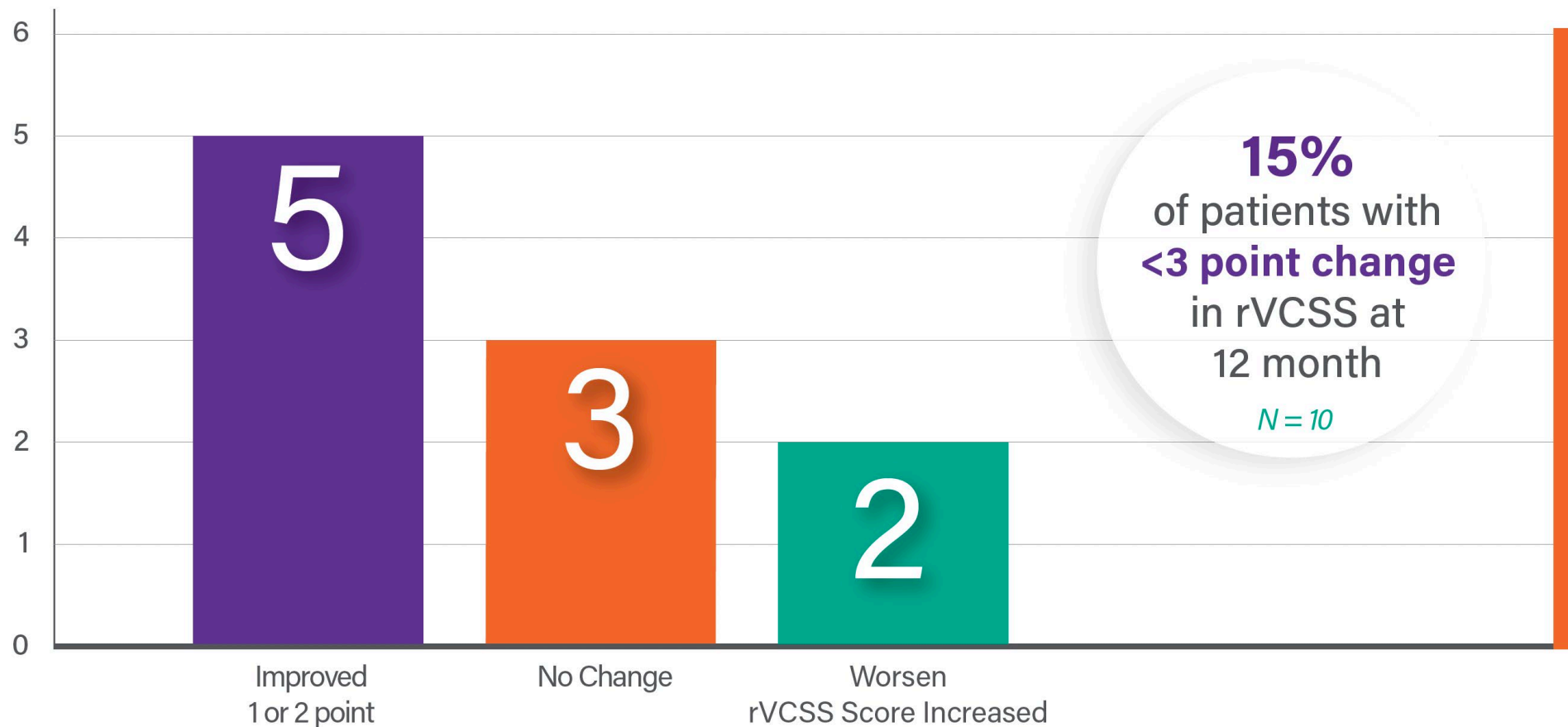


rVCSS: Point Improvement Clinically Meaningful Benefit

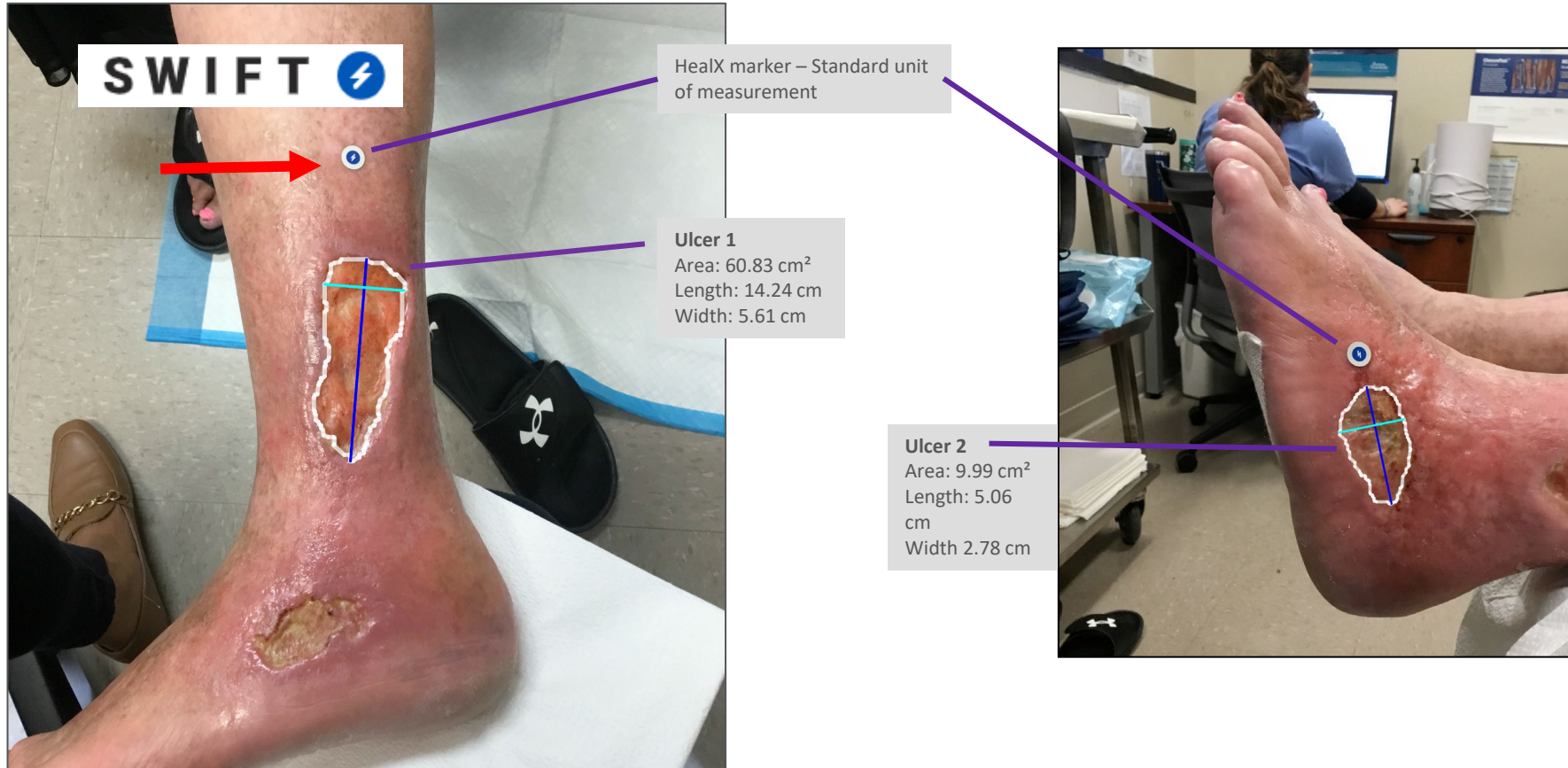
Point Improvement in Avg rVCSS Clinical Meaningful Benefit



Patients < 3 Point rVCSS



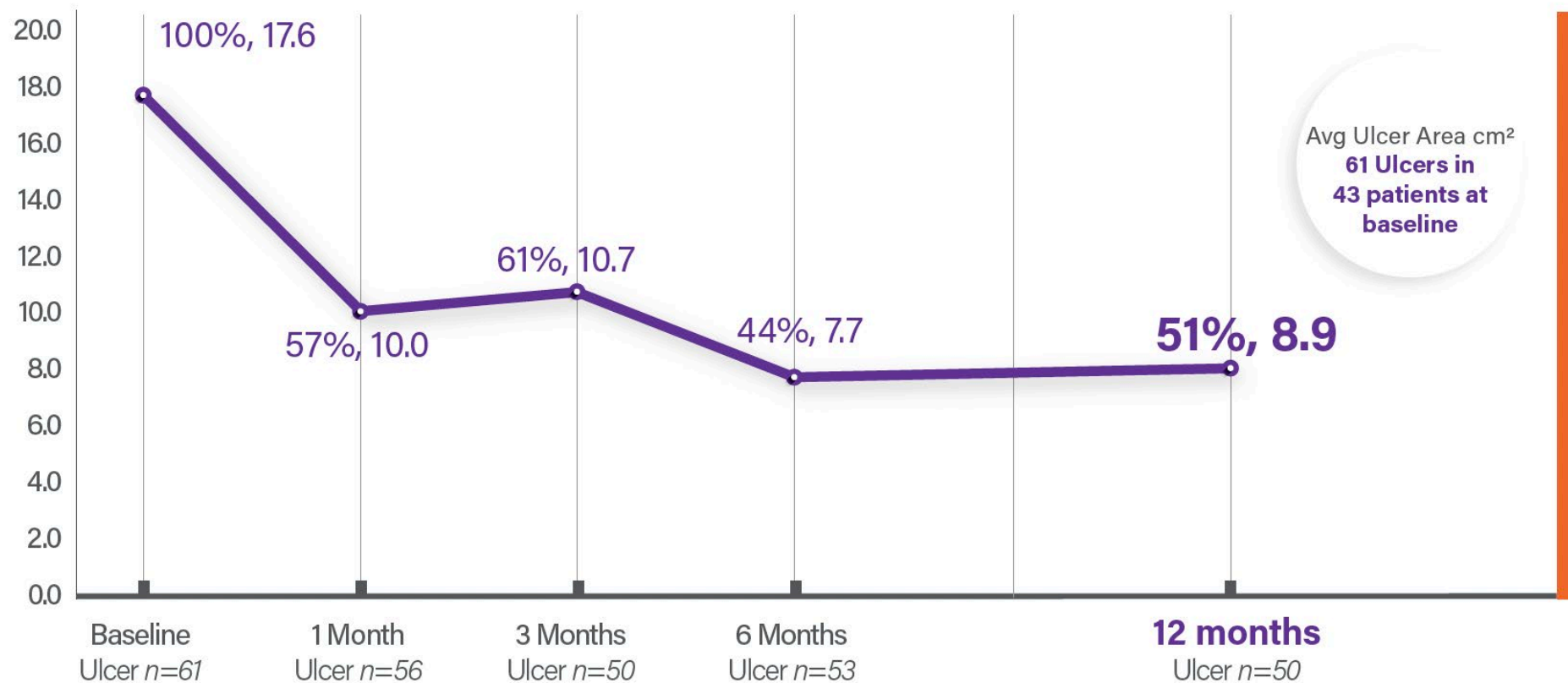
C6 Patients: Active Ulcers



Outcomes up to one year:

- Total area of ulceration after surgery compared to baseline
- Ulcer healing and improvement

Average Ulcer Area Reduced To – C6 Patient

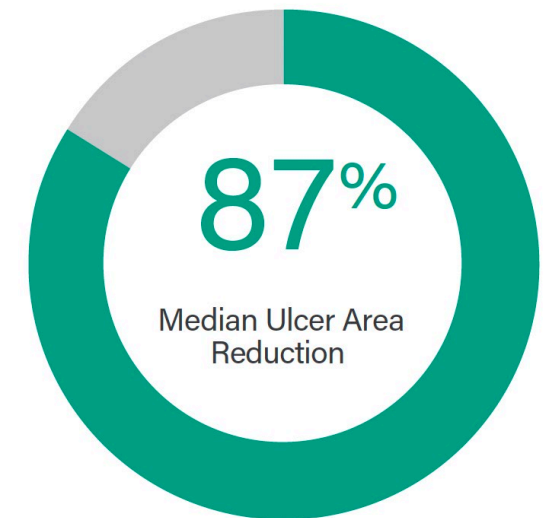
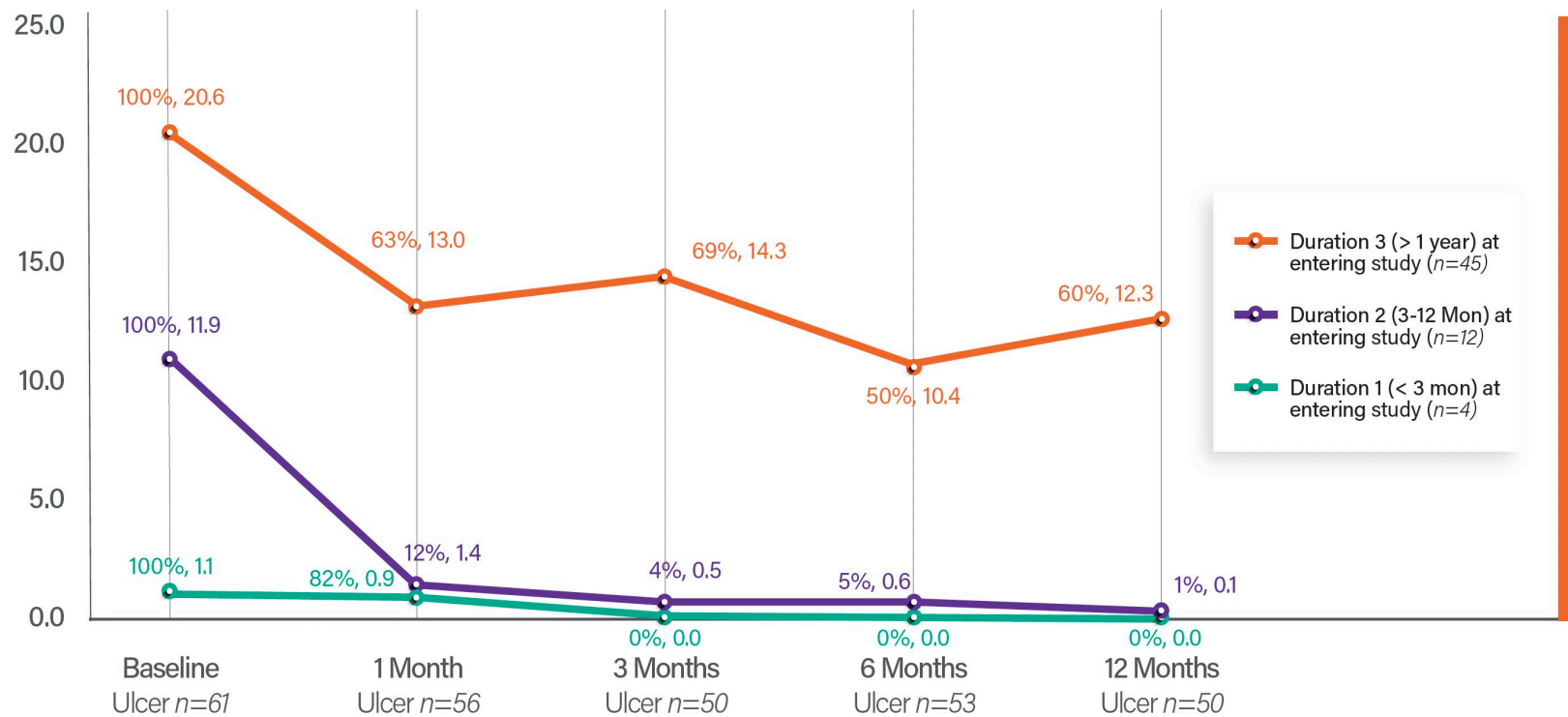


Ulcer C6 Patient: Severity of the Disease



Percent Avg Ulcer Area Reduction

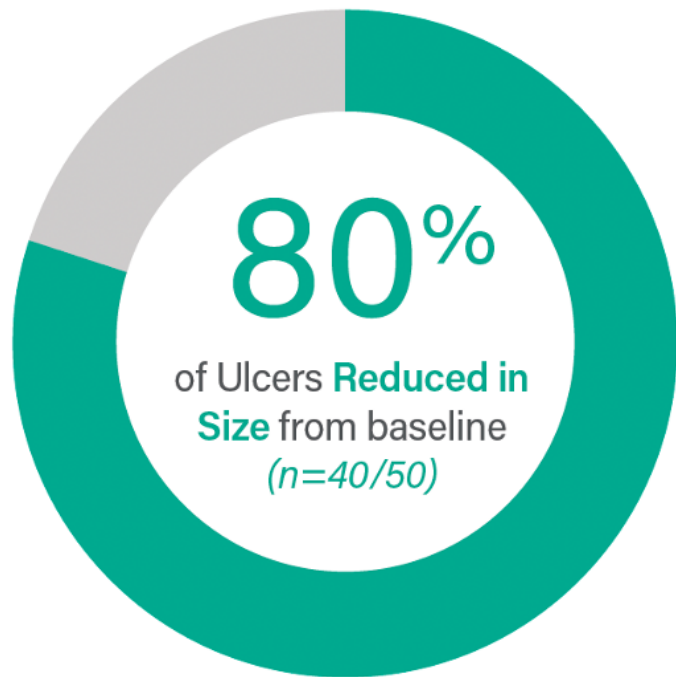
Percentage Avg Ulcer Area (cm²) Reduced To – Per Ulcer Duration



Impact of VenoValve Implantation

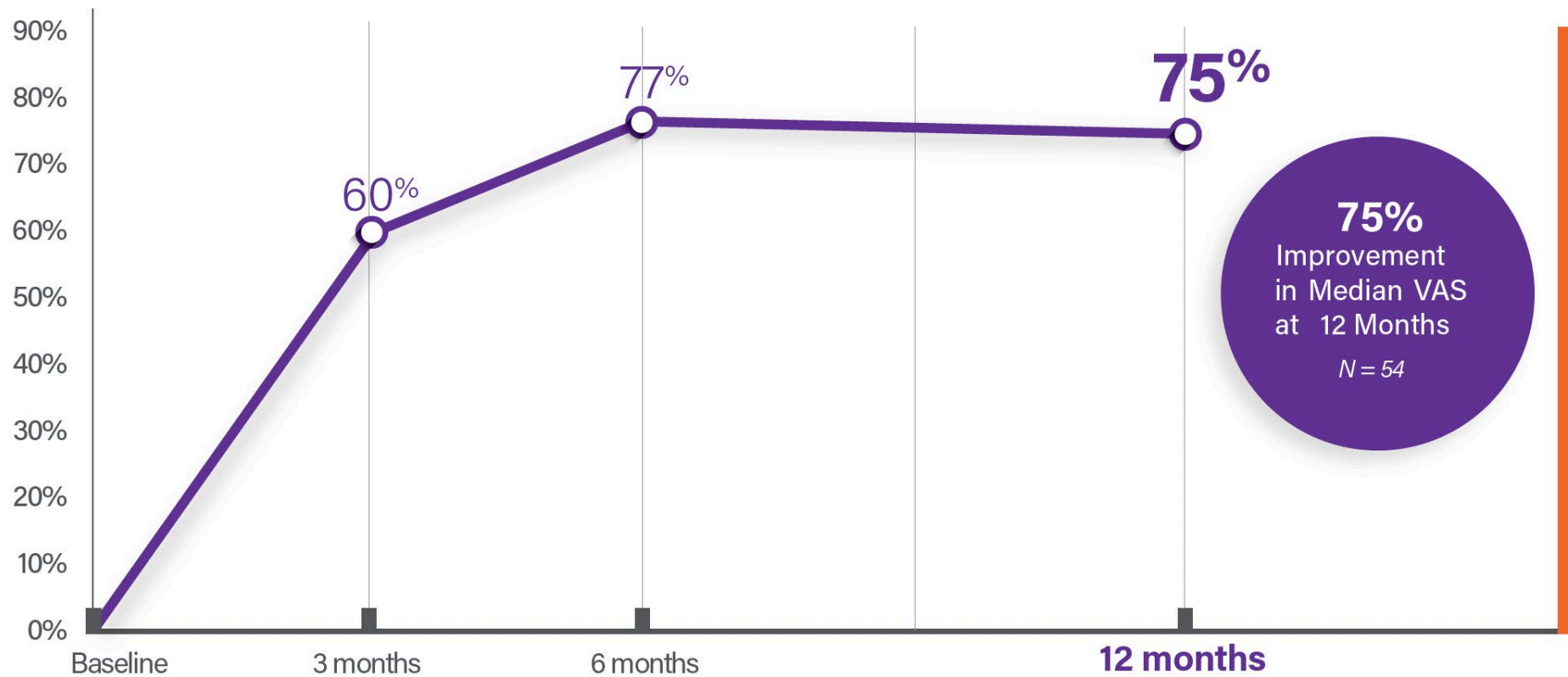


Ulcer Healing or Improvement at 12 Months Following VenoValve Implant Procedure



ULCER DURATION <1 YEAR	ULCER DURATION >1 YEAR
100% <i>Improved</i> n=12/12	78% <i>Improved</i> n=28/36
92% <i>Fully Healed</i> n=11/12	31% <i>Fully Healed</i> n=11/36

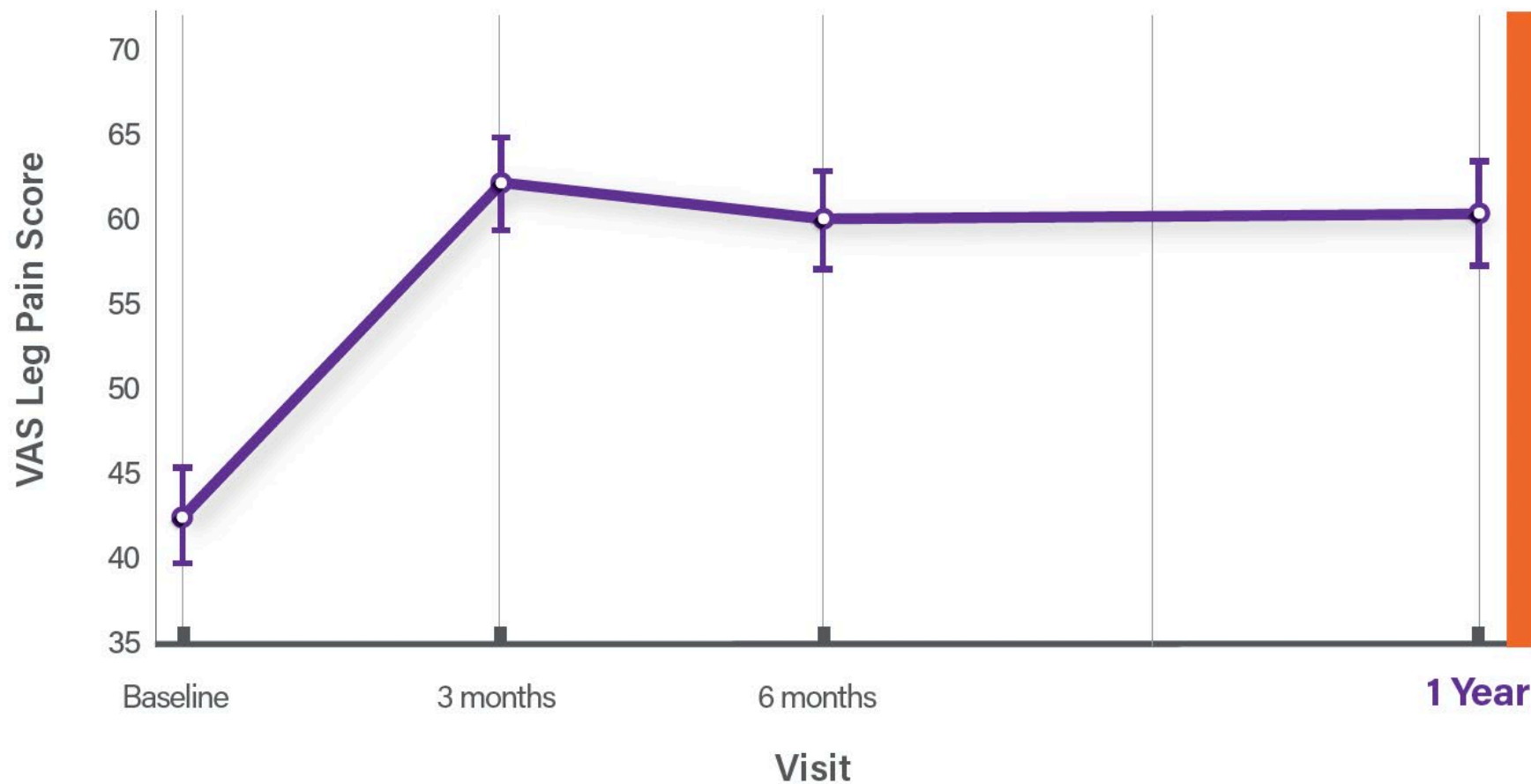
Percentage Improvement in Median VAS Scores at 12 Months

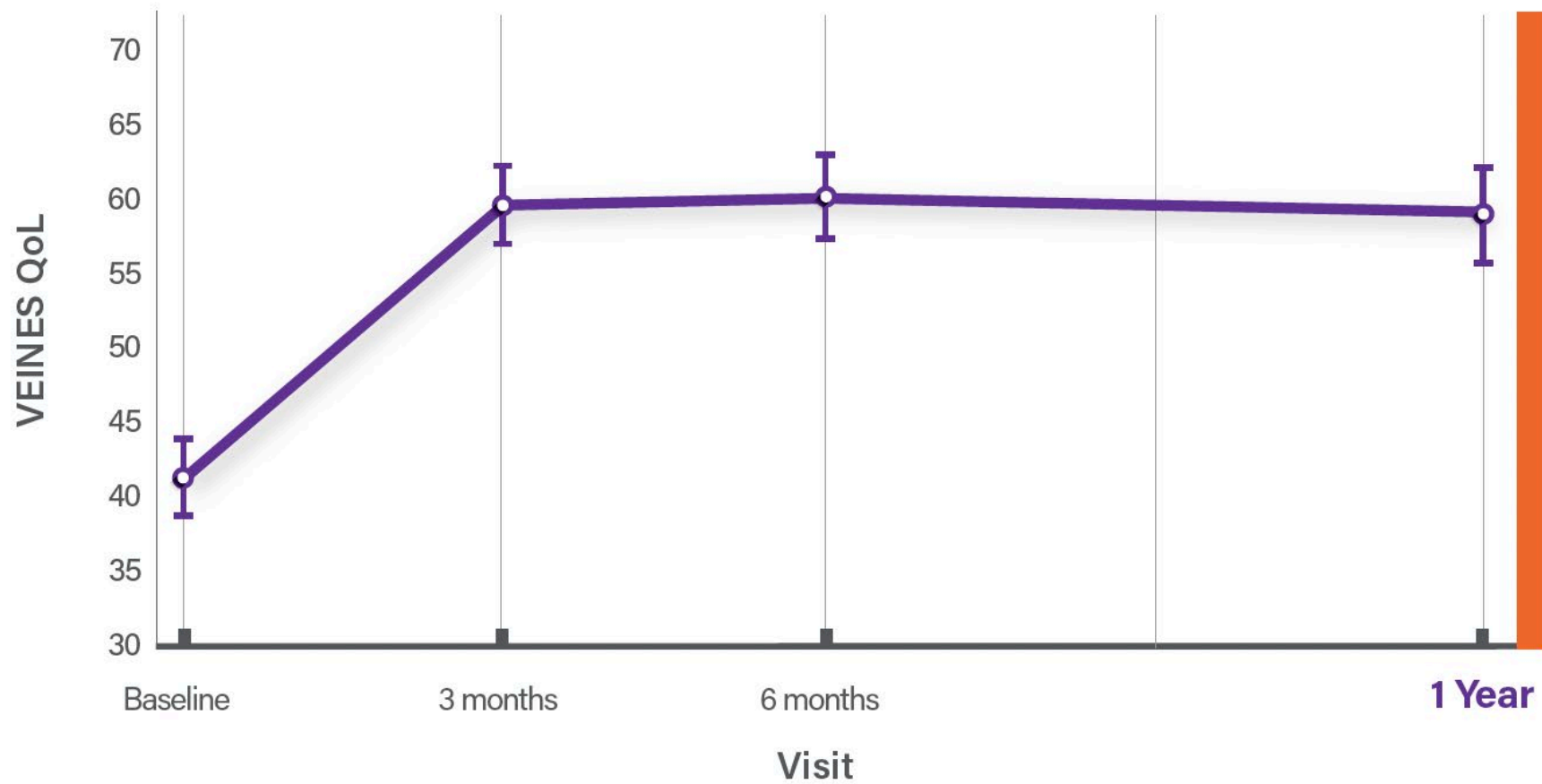


Quality Of Life Indicators

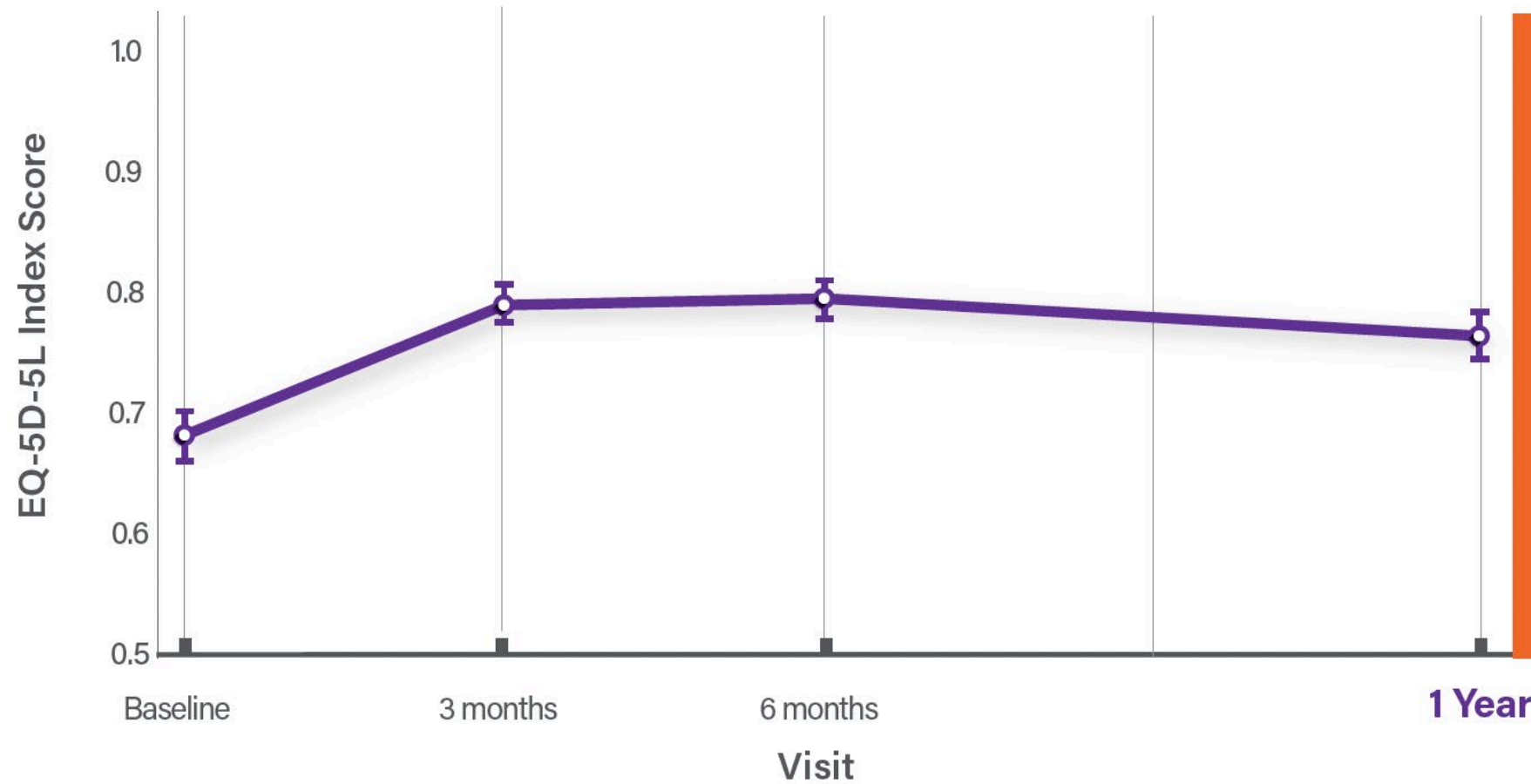
Patient Reported Outcomes				
Endpoint	Baseline	12 Months	Change from Baseline A negative value is indicative of an improvement	% Change
VEINES Symptoms Score (Mean \pm SD)	44.1 \pm 24.36	60.3 \pm 24.60	-16.3 \pm 21.40 (p<0.0001)	91.9%
VEINES QoL Score (Mean \pm SD)	43.2 \pm 22.67	58.9 \pm 25.59	-15.7 \pm 21.51 (p<0.0001)	57.8%
EQ-5D-5L Index Score (Mean \pm SD)	0.7 \pm 0.18	0.8 \pm 0.16	-0.1 \pm 0.18 (p=0.0004)	37.2%

VEINES SYMs Score

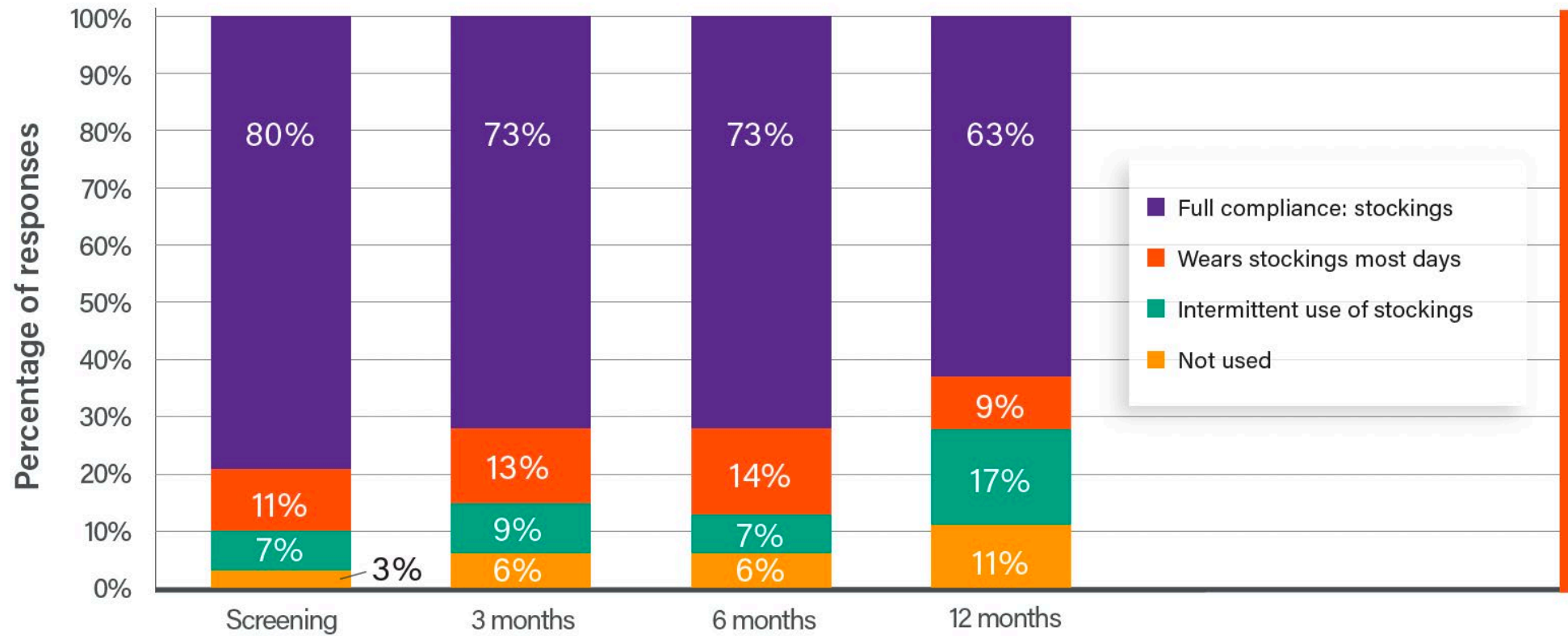




EQ-5D-5L Index Score Through 12 months



Use of Compression Therapy



The VenoValve is a safe and effective treatment for patients for the treatment of chronic venous insufficiency (CVI) due to deep valvular incompetency.

Thank You!

November 20, 2024

Impact Of Placement Of The VenoValve On CEAP Score In Patient's Treated In SAVVE Trial

Presented by
Dr. Raghu Motaganahalli
Professor of Surgery,
Division Chief and Program Director
Division of Vascular Surgery
Indiana University Methodist Hospital

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Connecting The **Vascular** Community



SCHOOL OF
MEDICINE

How Does VenoValve Affect Advanced Chronic Venous Disease (C4–C6)?



Demographics

- Age: 62.9 [38-83]
- Male: 80.8% (N=59)
- Race
 - White: 86.3% (N=63)
 - African American: 12.3% (N=9)
 - Other: 1.4% (N=1)
- Mean BMI: 32.4



CEAP Classification

- C4b: 5/73 (6.8%)
- C4c: 5/73 (6.8%)
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- C6: 42/73 (57.5%)
 - **73.8% (N=31/42) of patients with C6 disease had ulceration for > 1 year**



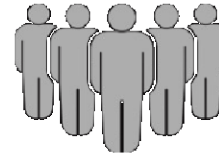
Comorbidities

- Diabetes: 28.8% (N=21)
- Peripheral Artery Disease: 6.8% (N=5)

Patients Characteristics per CEAP Classification

C6 (N= 42)

- Mean Age: 63.3 ± 9.97
- Median Age: 65 [38-83]
- Male: 79.5% (N=35)
- Race
 - White: 90.9% (N=40)
 - African American: 9.1% (N=4)
- Mean BMI: 32.01 ± 6.25



C5 (N= 21)

- Mean Age: 60.2 ± 9.29
- Median Age: 62 [45-80]
- Male: 85.7% (N=18)
 - White: 71.4% (N=15)
 - African American: 23.8% (N=4)
 - Other: 4.8% (N=1)
- Mean BMI: 32.67 ± 5.69

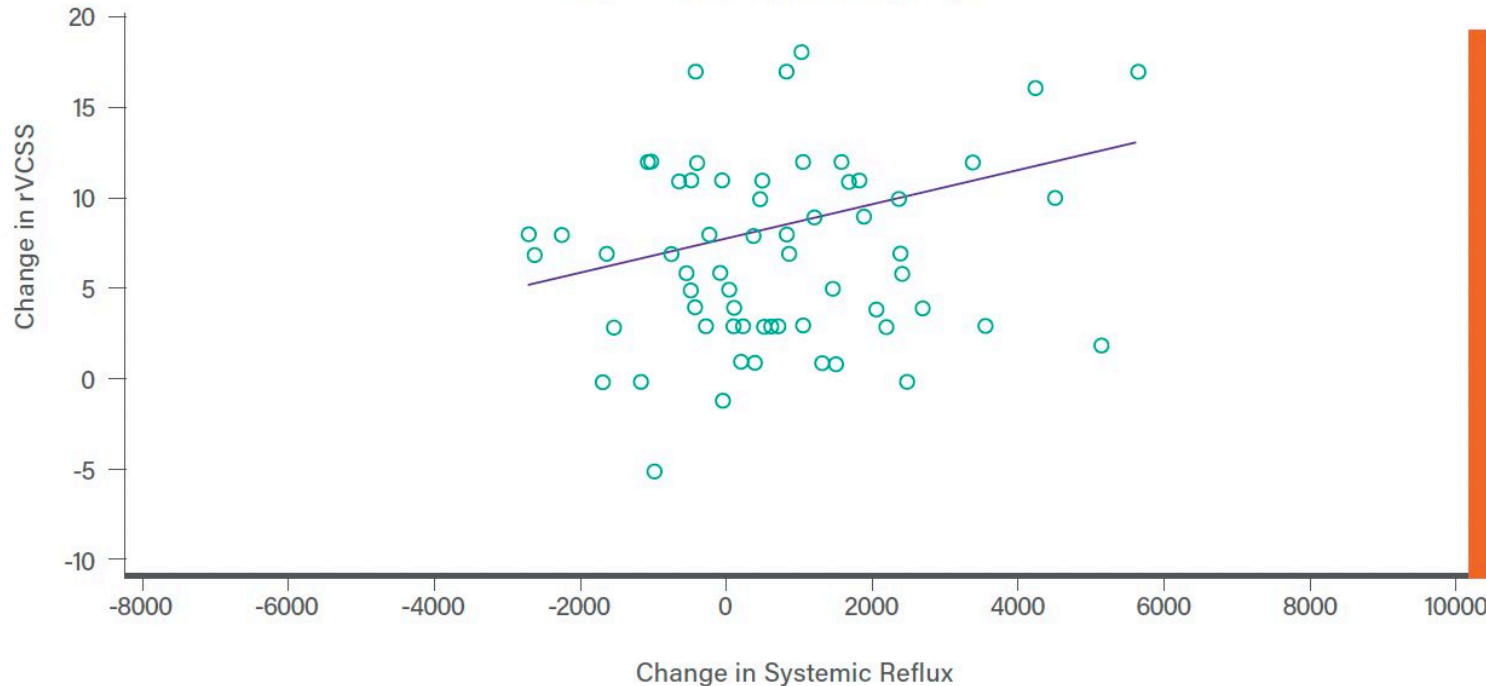
C4 (N= 10)

- Mean Age: 65.9
- Median Age: 68.5 [41-82]
- Male: 80% (N=8)
- Race
 - White: 100% (N=10)
- Mean BMI: 33.11 ± 4.3

No statistical differences across the 3 CEAP cohorts, Age comparison: P-value= 0. 2635

Change in rVCSS and Systemic Reflux Data

Scatterplot of Change in rVCSS and Systemic Reflux Data
Visit = 12 Months Follow-Up



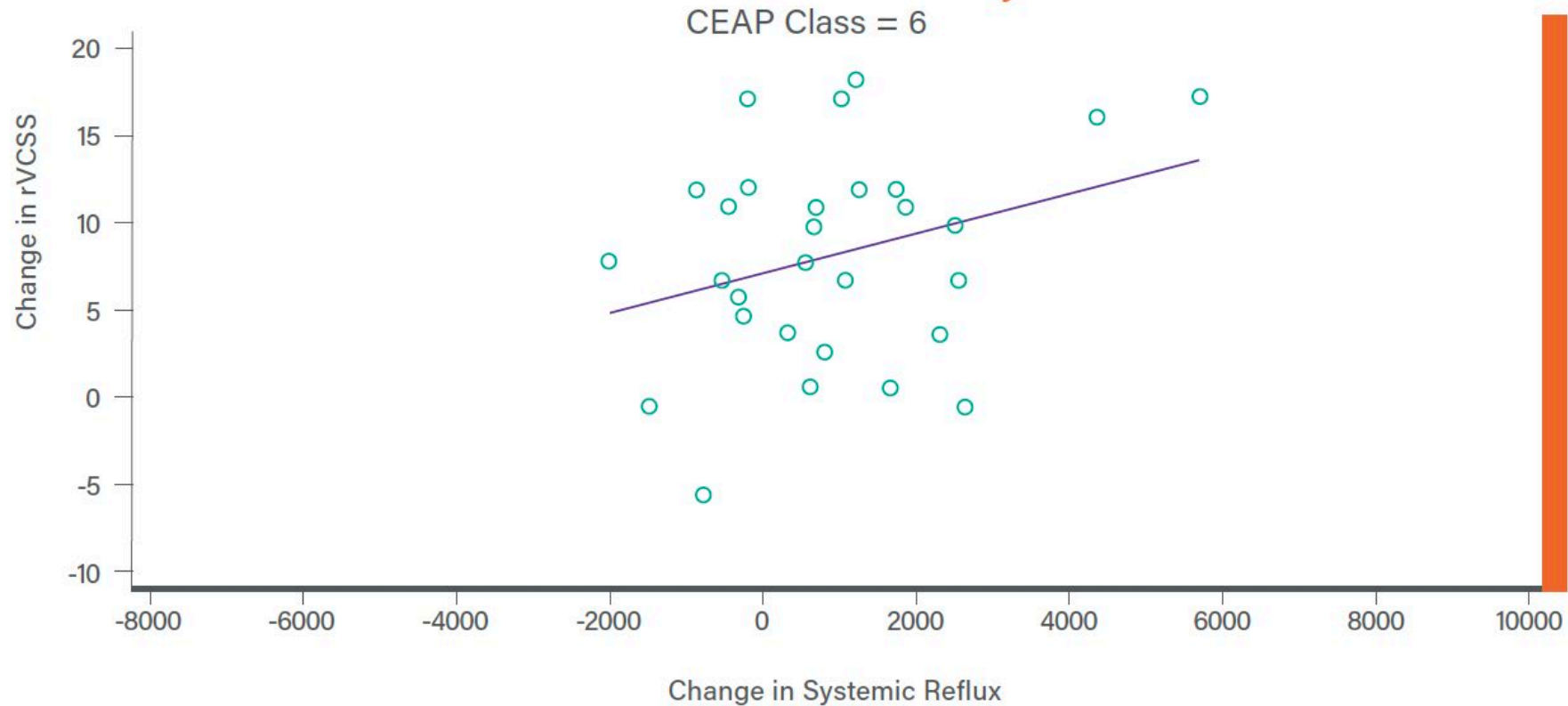
SYSTEMIC DERIVED REFLUX

Average of reflux values 2cm, 5cm, 10cm below the valve compared to caudal/popliteal reflux average at baseline

The Pearson correlation coefficient was 0.16, indicating a positive correlation between the two outcomes; as the change in systemic reflux increases, the change in rVCSS also increases.

Change in rVCSS and Systemic Reflux Data – C6 Subjects

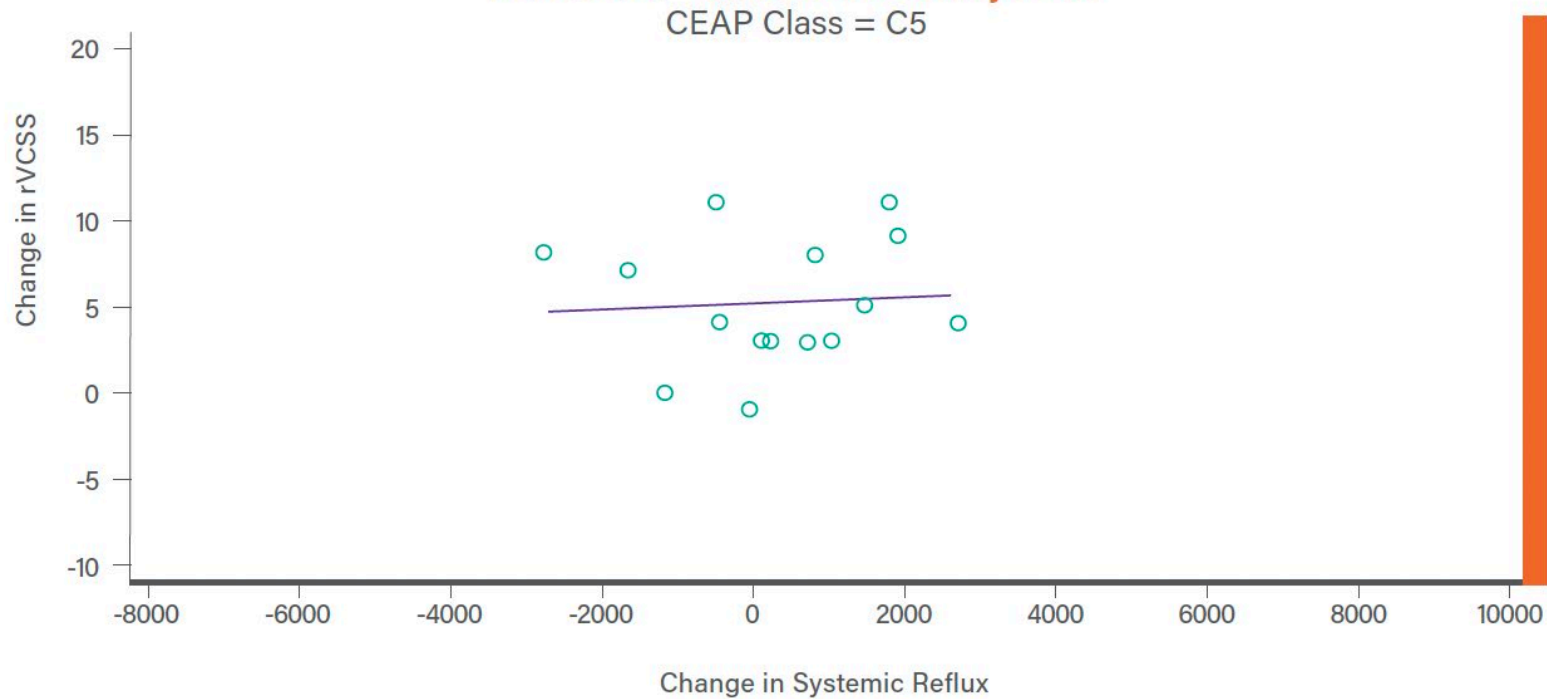
Scatterplot of Change in rVCSS and Systemic Reflux Data for CEAP Class C6 Subjects



Change in rVCSS and Systemic Reflux Data - C5 Subjects

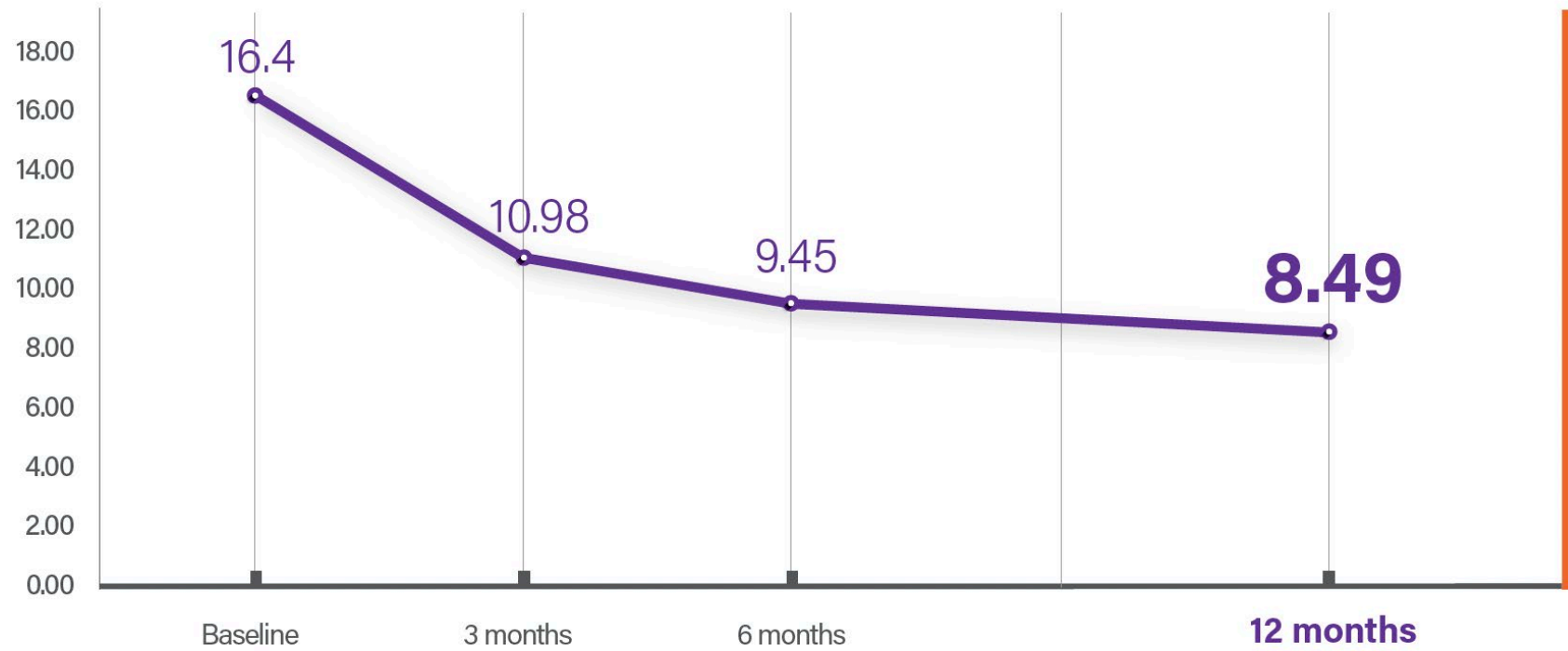


Scatterplot of Change in rVCSS and Systemic Reflux Data for CEAP Class C5 Subjects



Average rVCSS score change for patients with ≥ 3 points at 12 Months

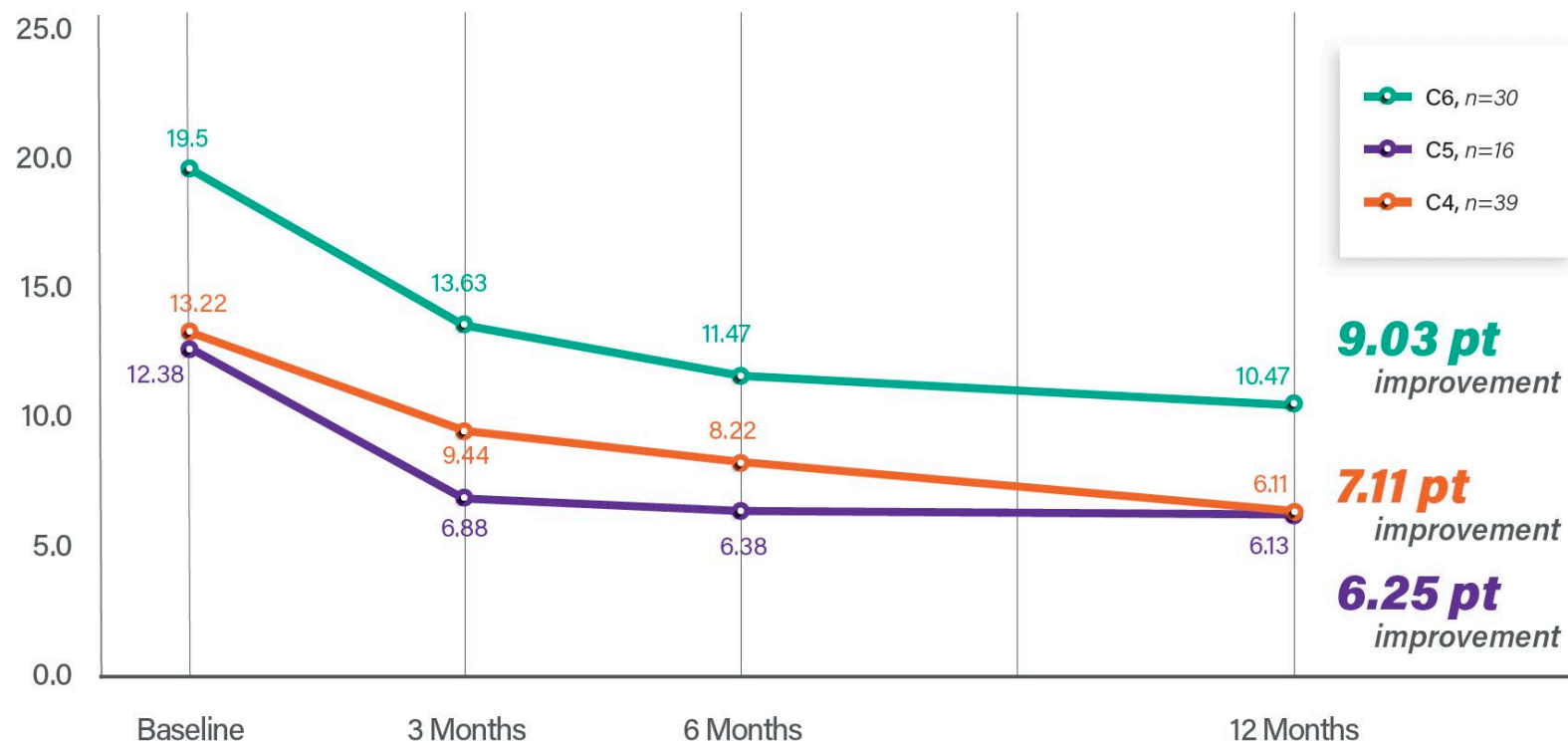
Average rVCSS score change for patients with ≥ 3 points at 12 Months
N=64 • Point Change=7.9



Average rVCSS score change for patients with ≥ 3 points at 12 Months - per CEAP class

Average rVCSS score change for patients with ≥ 3 points at 12 Months - per CEAP class

N=55



Average VAS (Pain) Score Changed from Baseline

Average VAS (Pain) Score Changed from Baseline

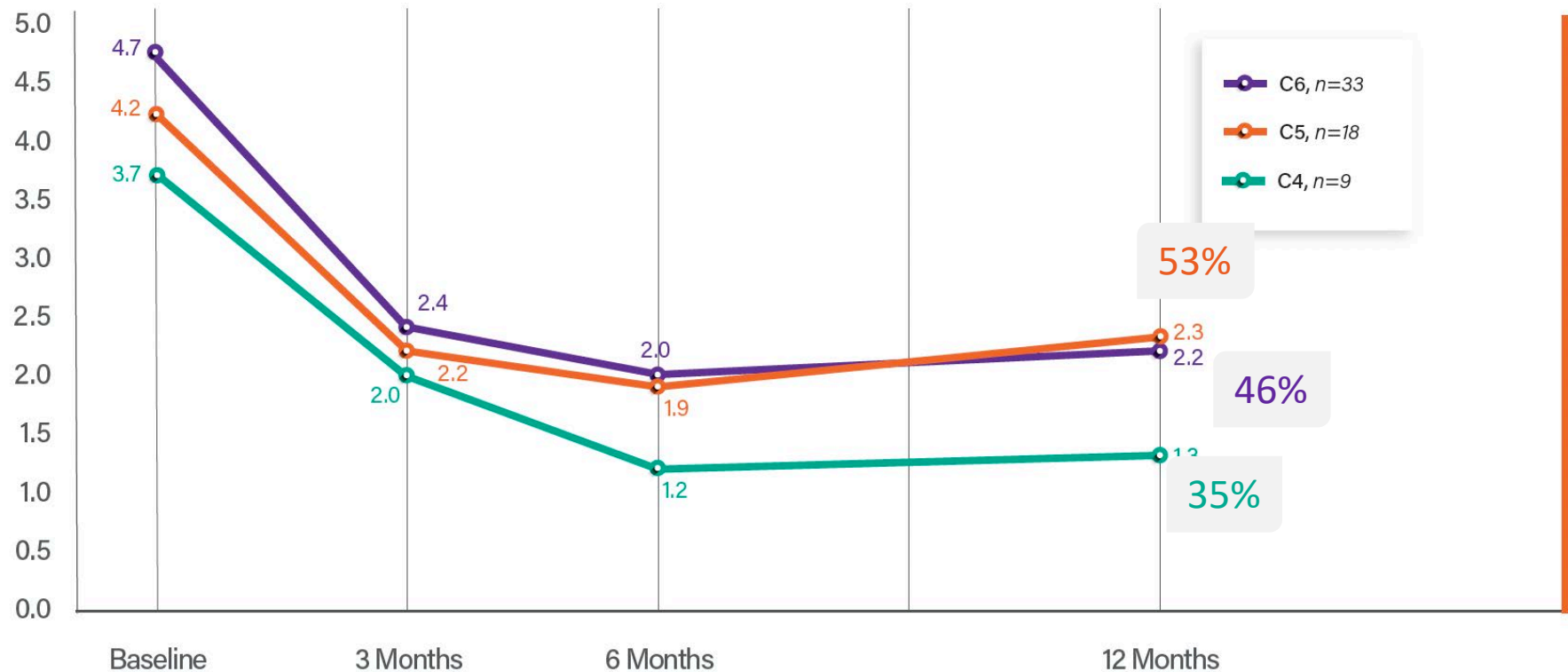


Average VAS (Pain) Score Improvement at 12 Months - per CEAP Class

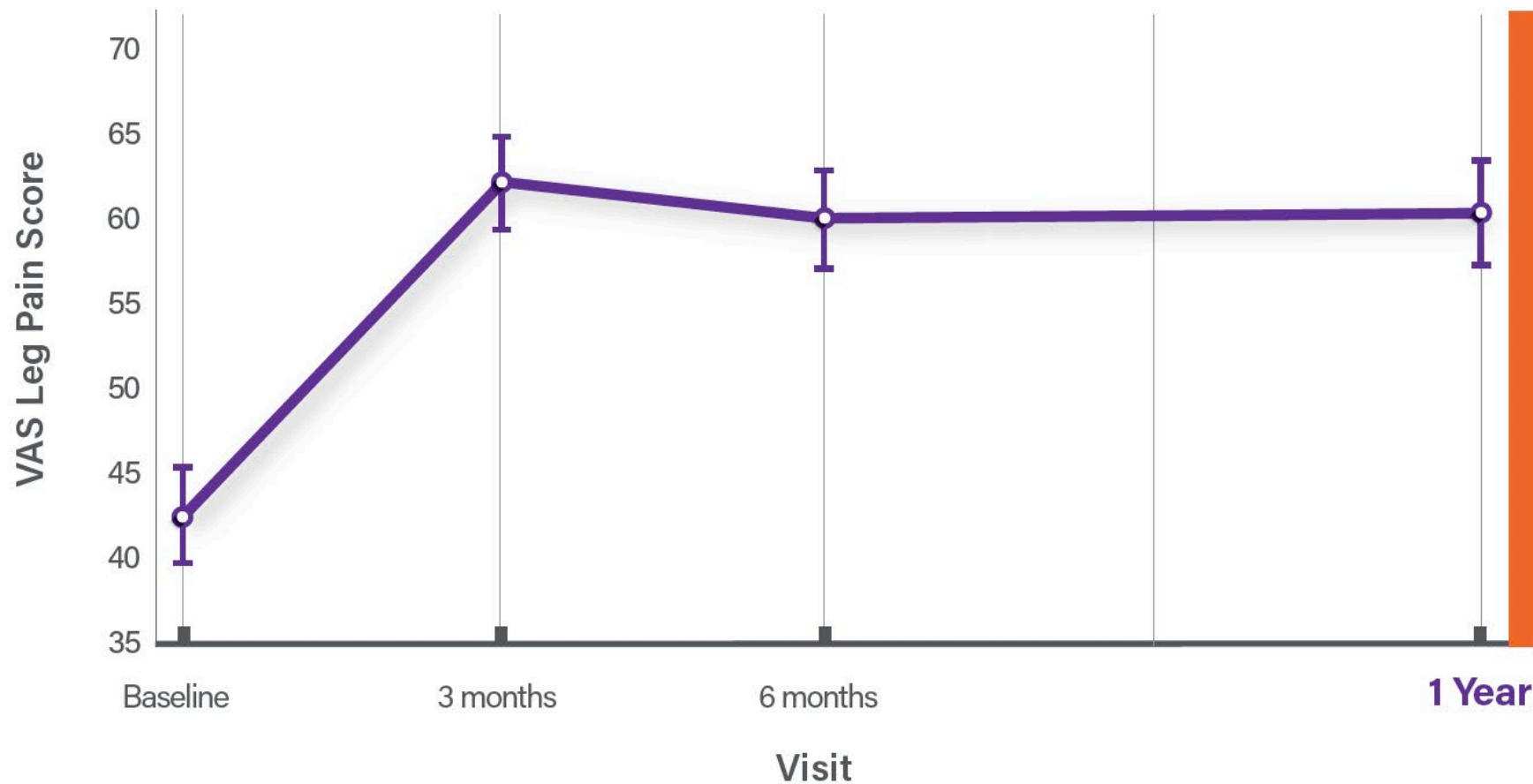
Average VAS (Pain) Score Improvement at 12 Months - per CEAP Class

N=60

Only subjects with data available at baseline and 12 months visit are included



VEINES SYMS Score

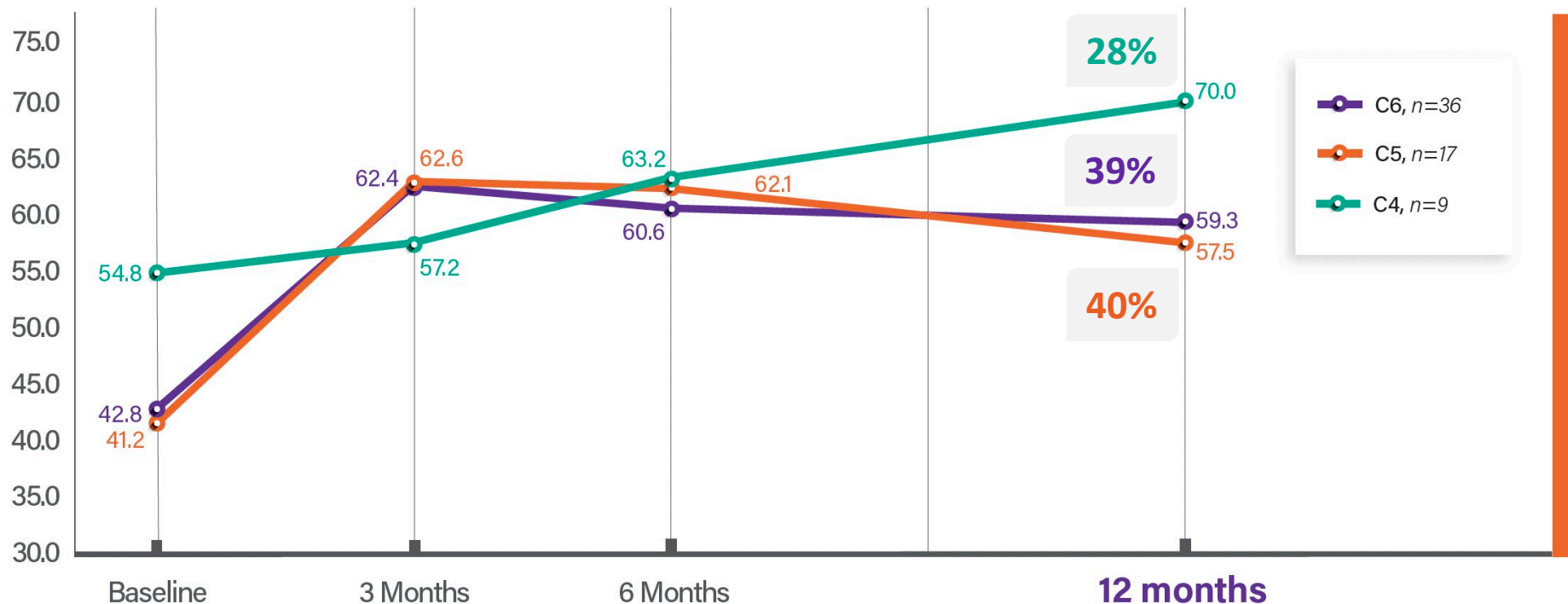


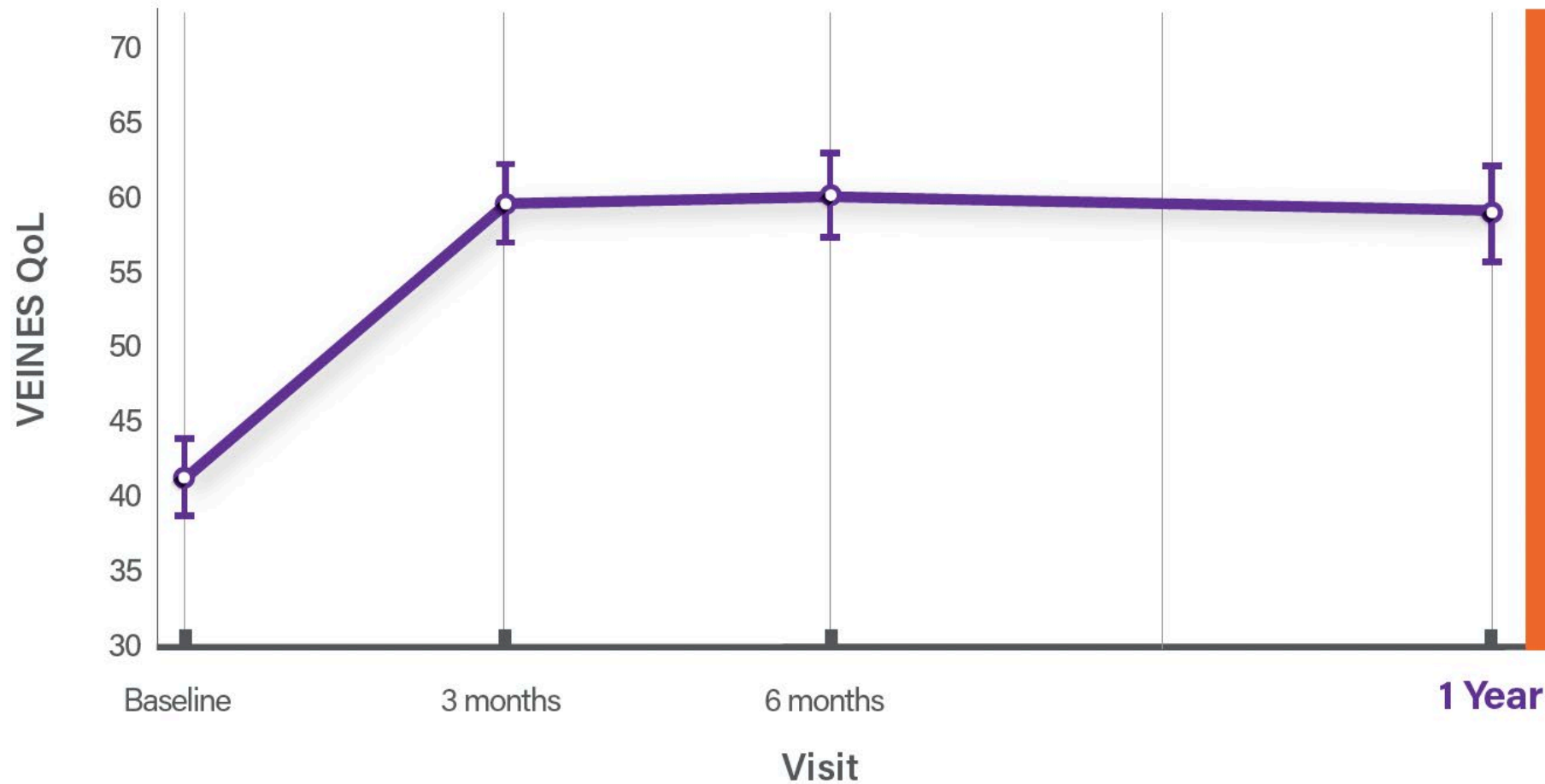
Avg VEINS SYM Score Improvement at 12 Months - per CEAP Class

Avg VEINS SYM score Improvement at 12 Months - per CEAP Class

N=62

Only subjects with data available at baseline and 12 months visit are included
*high scores indicate better clinical outcomes



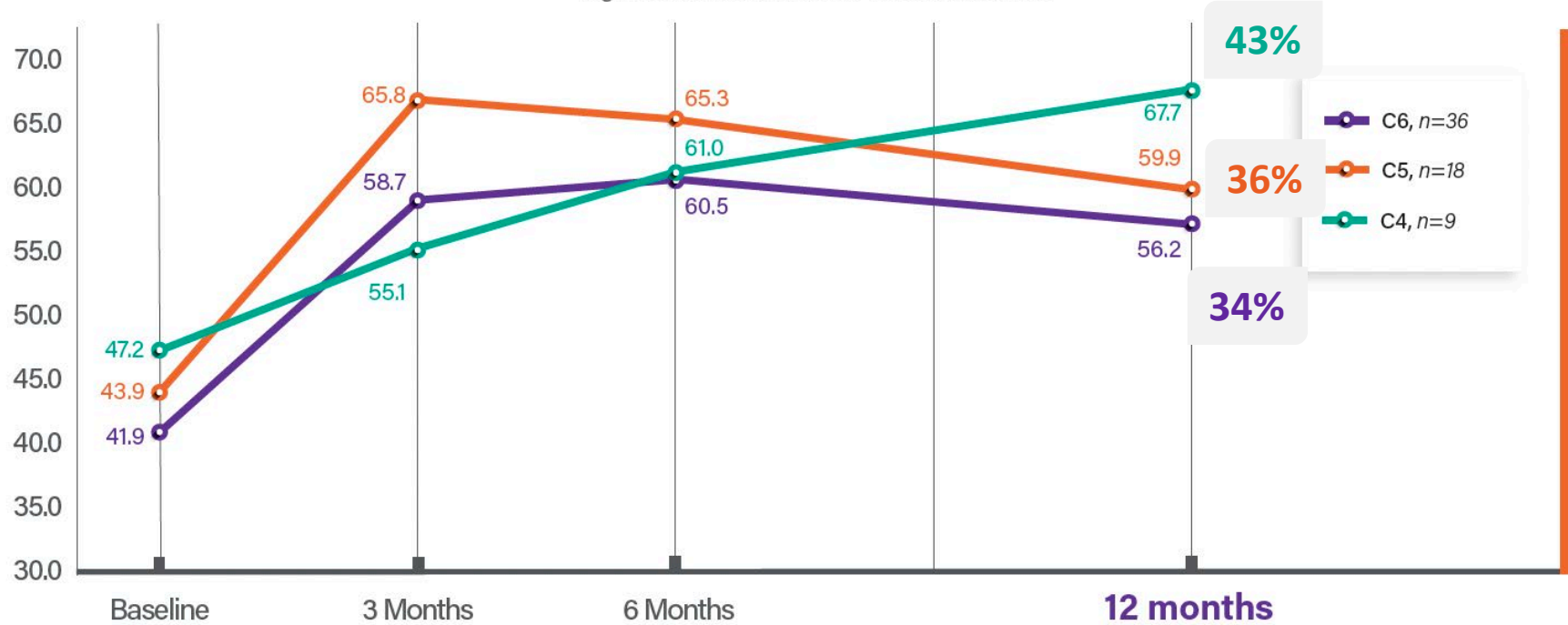


Avg VEINS QOL score Improvement at 12 Months - per CEAP Class

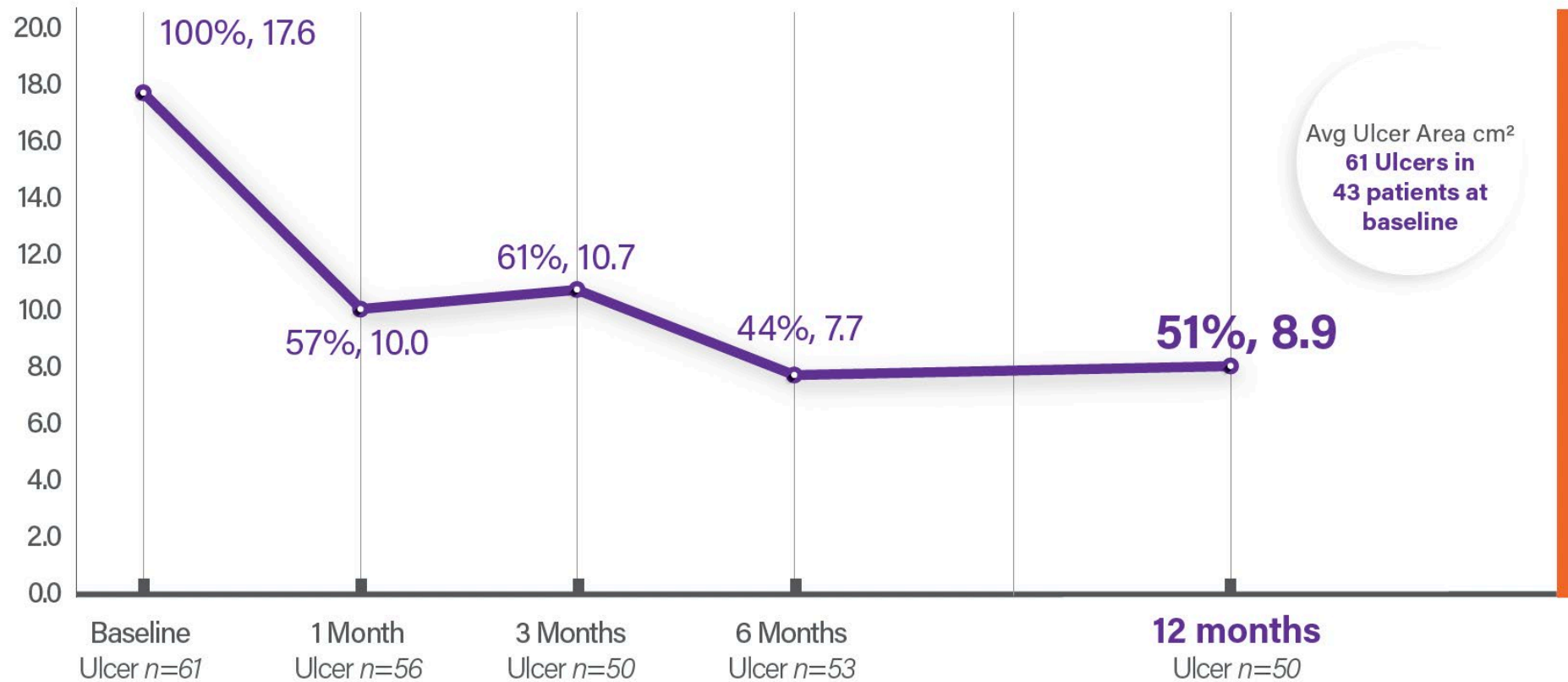
Avg VEINS QOL Score Improvement at 12 Months- per CEAP Class

N=63

Only subjects with data available at baseline and 12 months visit are included
*high scores indicate better clinical outcomes

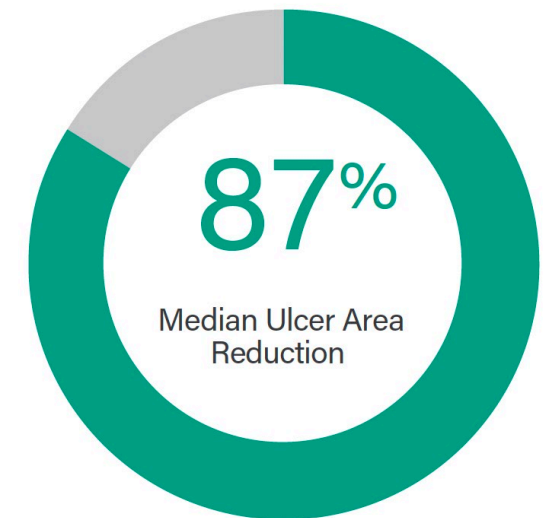
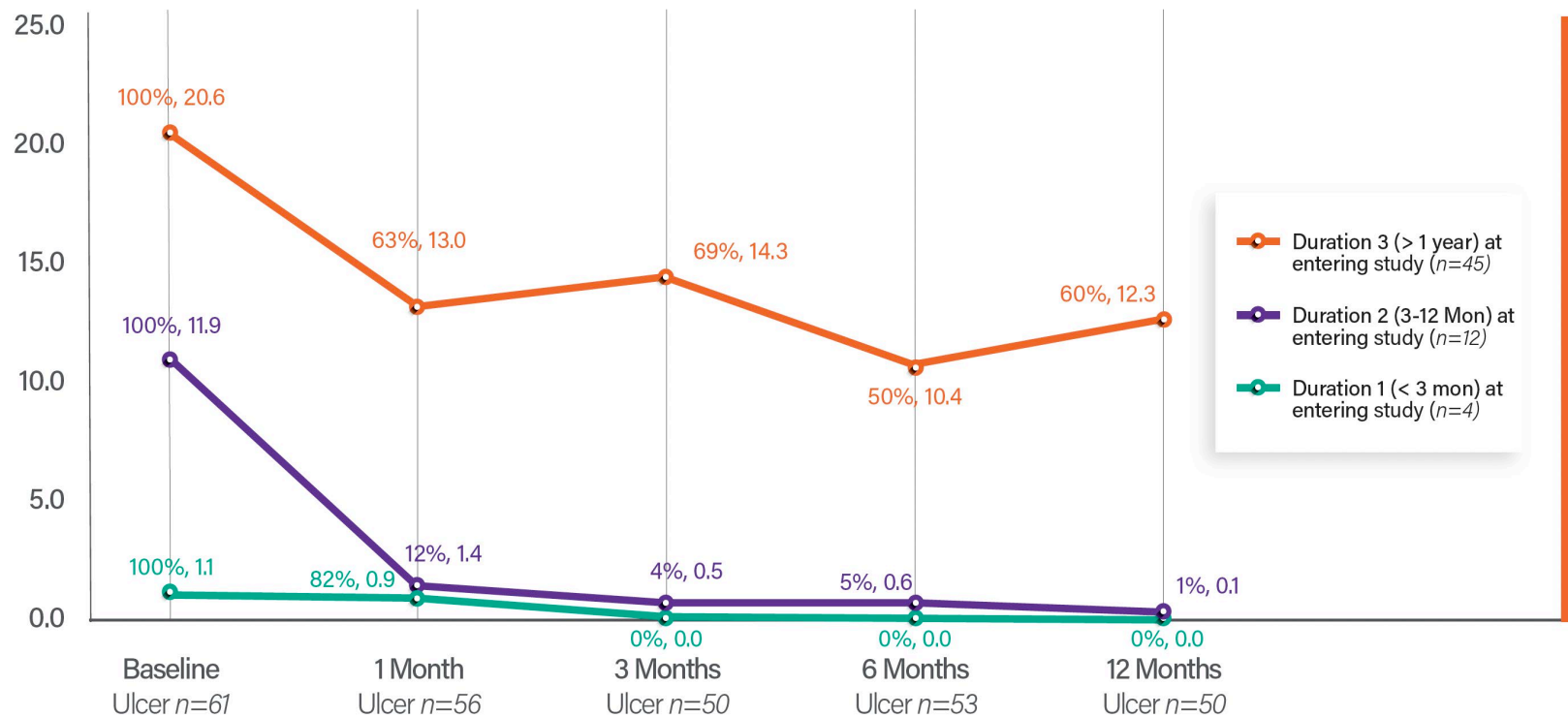


Average Ulcer Area Reduced To – C6 Patient

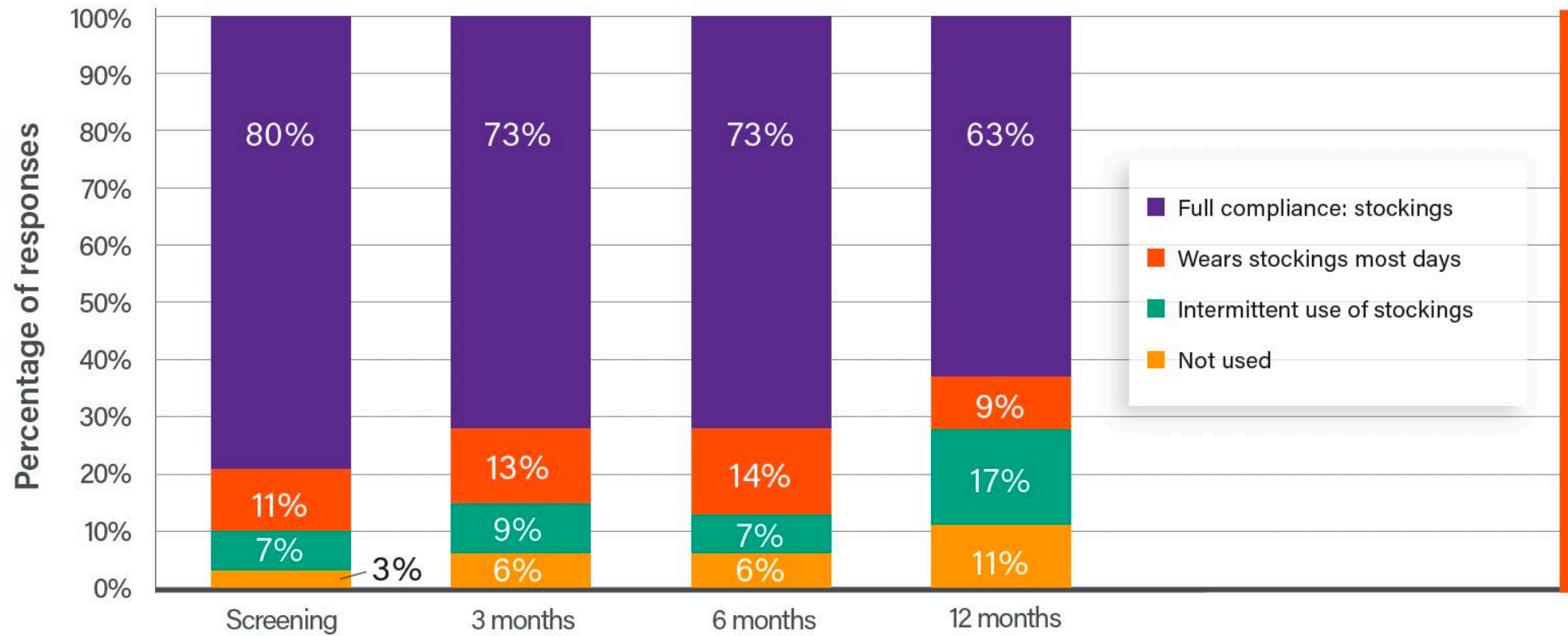


Percent Avg Ulcer Area Reduction

Percentage Avg Ulcer Area (cm²) Reduced To – Per Ulcer Duration



Use of Compression Therapy



- This data suggests that not only is the VenoValve safe and effective, but is effective for all patients from C4b - C6.
- Perhaps implanting patients early with the VenoValve would result in less severity of disease and symptoms for patients
- VenoValve offers a novel treatment option for those patients incapacitated with symptoms of CVI

Thank You!

The logo for enveno MEDICAL features the word "enveno" in a dark grey, lowercase, sans-serif font. The letter "v" is stylized with overlapping purple and orange shapes. Below "enveno" is the word "MEDICAL" in a dark grey, uppercase, sans-serif font. The background consists of large, overlapping, semi-transparent shapes in shades of purple, orange, and light peach.

enveno
MEDICAL

Setting New Standards for Venous Care

Patient Case Study # 1

Presented by:

Dr. Raghu Motaganahalli

Patient 023-001



Baseline Patient Demographics	
Age	41
Race	Caucasian
Sex	Female
CEAP Class	C5
Height	165cm
Weight	84.2kg
BMI	30.9

Past Medical History
Hodgkins Lymphoma / 1991
Thyroid CA / 2014
DVT
Hyperlipidemia

SURGICAL PROCEDURE

On 08/08/2023 patient underwent placement of a 9mm VenoValve into the right femoral vein, primary closure

POST-OP NOTES

- No initial complications
- Patient received sequential compression and anticoagulants while in the hospital
- She was discharged after one overnight stay with Enoxoparin 60mg SC q12h

FOLLOW-UP NOTES

- **7 day follow up** it was reported that there was thrombus noted in FV and through device.
- **30-day scan** reveals same results as 7day.
- Successful mechanical aspiration thrombectomy was performed on 9/26/23
- **3-, 6- and 12- month visits**, patient experienced improvement. Vein and device remain patent with flow modulation and functionality noted at one year.
- Improvement in RVCSS from baseline 13 pt:
5 pt @ 3 months | 3 pt @ 6 months | 1 pt @ 12 months



BASELINE



PROGRESSION

Patient Case Study # 2

Presented by:

Dr. Marc Glickman

Patient 020-002



Baseline Patient Demographics	
Age	50
Race	Caucasian
Sex	Female
CEAP Class	C6
History of venous stasis ulcer ulcer for 20 years	

Past Medical History
DVT
Diabetes
Patient has healed her wound only 2 times in the last 20 years
History of multiple superficial venous procedures
Used compression therapy and wound care for ulcer religiously

SURGICAL PROCEDURE

On 8/18/22 patient underwent placement of a 9 mm VenoValve into the right femoral vein, mid-thigh region, bovine patch used

POST-OP NOTES

- Patient was discharged the next day and treated with Enxoparin 115mg q 12h SC
- No post operative complications

FOLLOW-UP NOTES

Improvement in RVCSS from baseline 14 pt:

**5 pt @ 3 months | 5 pt @ 6 months | 4 pt @ 12 months
4 pt @ 24 months**



BASELINE

PROGRESSION



Patient Perspectives

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enveno
MEDICAL

Setting New Standards for Venous Care