

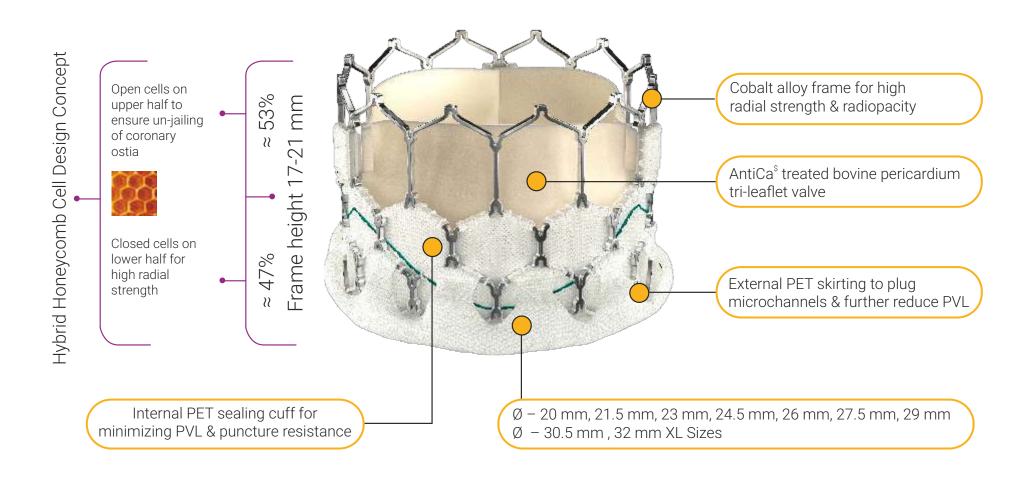




MyVal-1 Study Favourable Outcomes at 1-year*

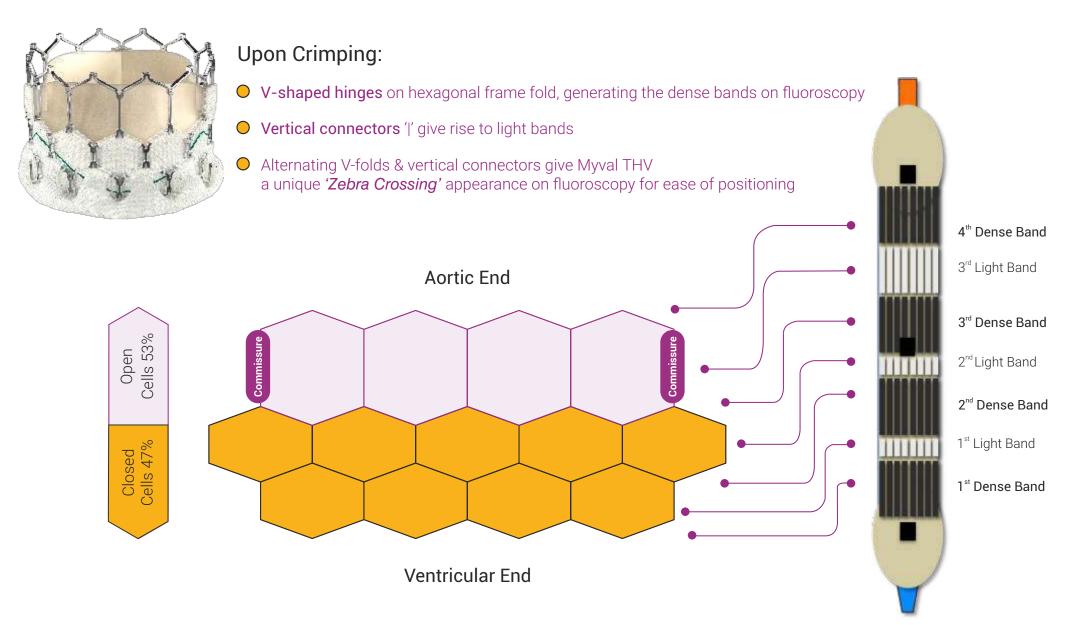
Device-related Mortality Incidence of Stroke **New Permanent Pacemaker**

Myval THV: Designed for Precision in Outcomes



Myval THV has been indigenously developed by Meril Life Sciences Pvt. Ltd.

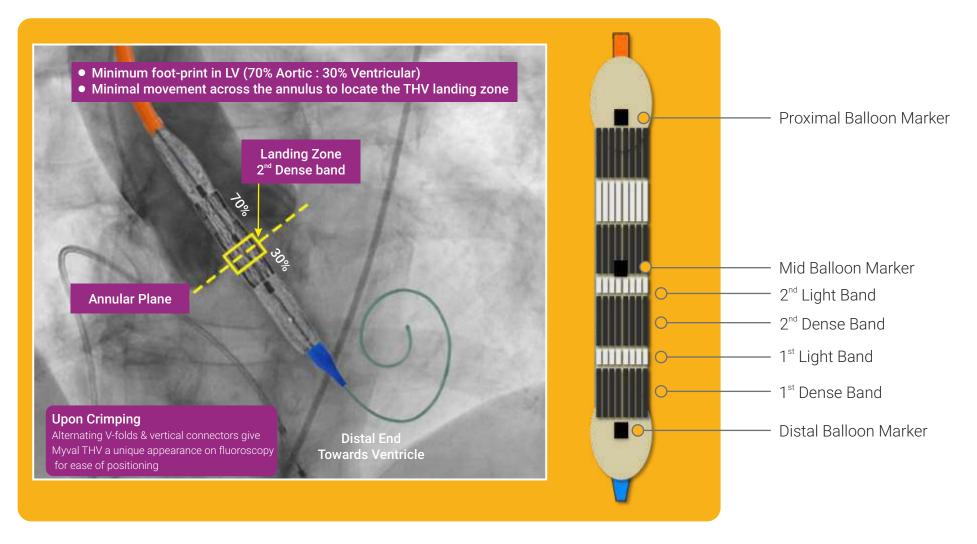
Myval THV: Unique Crimping Outcome



Myval THV is recommended to be crimped over Navigator THV Balloon Delivery System prior to insertion within introducer sheath

Myval THV: Precise Placement Technique

Schematic of Myval THV - Ideal Landing Zone

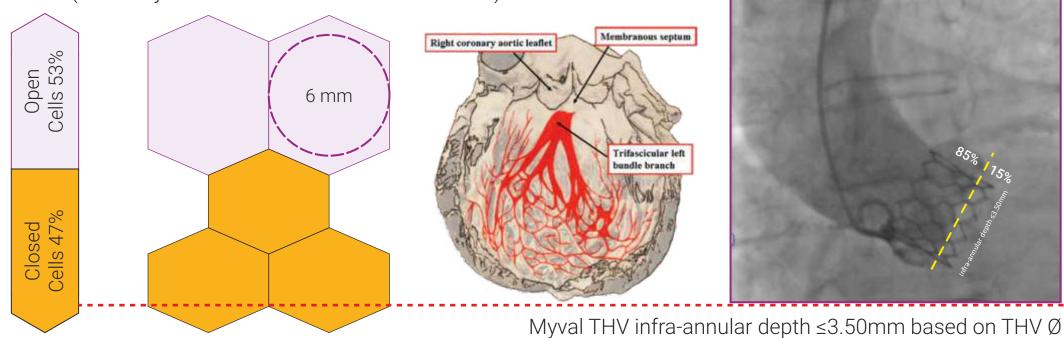


Elimination of THV frame parallax promptly ensures visualisation of characteristic dark-light bands Fluoroscopic images have been dramatized & and may not be in 1:1 ratio

Myval THV: Ground Zero Deployment

- Shallow deployment of Myval THV with least engagement within LVOT is possible
- Optimal orthotopic anchorage of Myval THV with marginal LVOT foot-print without risk of THV migration
- Minimal infra-annular depth ≤3.50mm avoids conduction system interference (thus minimizing the need of new permanent pacemaker dependency)

Largest circumscribable diameter in Open Cell (for all Myval THV Diameters 20mm to 32mm)



Myval THV: Detailed Sizing Guide

3D Annular area mi	m ²	270	280	290	0	300		310		314	32	20	330		340	350	360
3D area-derived diamet	ter mm	18.5	18.9	19.	.2	19.5	5	19.9		20.0	20	0.2	20.5		20.8	21.1	21.4
	20 mm	16.4%	12.2%	8.3	3%	4.7%	6	1.3%		0.1%	-1	.8%	-4.8	%	-7.6%	-10.2%	-12.7%
% Annular area over/under	21.5 mm	34.5%	29.7%	25.	.2%	21.0)%	17.1%		16%	13	3%	10%		7%	4%	0.8%
	23 mm	53.9%	48.4%	43.	.3%	38.5	5%	34.0%		32.3%	29	0.8%	25.9	%	22.2%	18.7%	15.4%
3D Annular area mi	m ²	370	380	390	40	00	410	4	115	420)	430	4	40	450	460	470
3D area-derived diamet	ter mm	21.7	22.0	22.3	22	2.6	22.8	2	23.0	23.	1	23.4	2	3.7	23.9	24.2	24.5
	23 mm	12.3%	9.3%	6.5%	3.	9%	1.3%	C	0.1%	-1.1	1%	-3.4%	-!	5.6%	-7.7%	-9.7%	-11.6%
% Annular area over/under	24.5 mm	27.4%	24.1%	20.9%	17	7.9%	15.0	% 1	3.6%	12.	2%	9.6%	7	.1%	4.8%	2.5%	0.3%
	26 mm	43.5%	39.7%	36.1%	32	2.7%	29.5	% 2	27.9%	26.	4%	23.5%	2	0.7%	18.0%	15.4%	13.0%
3D Annular area mı	m ²	480	490	500	51	10	520	5	530	540)	550	5	60	570	580	590
3D area-derived diamet	ter mm	24.7	25.0	25.2	25	5.5	25.7	2	26.0	26.	2	26.5	2	6.7	26.9	27.2	27.4
	26 mm	10.6%	8.4%	6.2%	4.	1%	2.1%	C).2%	-1.7	7%	-3.5%	-:	5.2%	-6.9%	-8.5%	-10.0%
% Annular area over/under	27.5 mm	23.7%	21.2%	18.8%	16	5.5%	14.2	% 1	2.1%	10.	0%	8.0%	6	.1%	4.2%	2.4%	0.7%
	29 mm	37.6%	34.8%	32.1%	29	9.5%	27.0	% 2	24.6%	22.	3%	20.1%	1	7.9%	15.9%	13.9%	12.0%
3D Annular area mi	m ²	600	610	620	63	30	640	6	550	660)	670	6	80	690	700	710
3D area-derived diamet	ter mm	27.6	27.9	28.1	28	3.3	28.5	2	28.8	29.	0	29.2	2	9.4	29.6	29.9	30.1
	29 mm	10.1%	8.3%	6.5%	4.	8%	3.2%	1	.6%	0.1	%	-1.4%	-:	2.9%	-4.3%	-5.6%	-7.0%
% Annular area over/under	30.5 mm	21.8%	19.8%	17.8%	16	5.0%	14.29	% 1	2.4%	10.	7%	9.0%	7	.4%	5.9%	4.4%	2.9%
	32 mm	34.0%	31.8%	29.7%	27	7.7%	25.79	% 2	23.7%	21.	9%	20.0%	1	8.3%	16.6%	14.9%	13.3%
3D Annular area mi	m²	720	730	740	750	-	760	770		416	790	8	800	810	820	830	840
3D area-derived diamet	ter mm	30.3	30.5	30.7	30.9	(31.1	31.3		23.0	31.7	7 3	1.9	32.1	32.3	32.5	32.7
% Annular area over/under	32 mm	11.7%	10.2%	8.7%	7.2%	į	5.8%	4.4%		93.3%	1.89	% 0).5%	-0.79	% -1.9%	-3.1%	-4.3%

Myval THV: Size Matrix

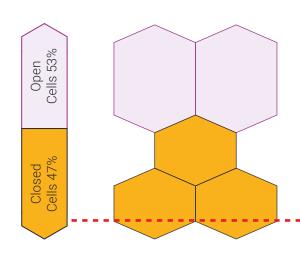
Myval THV Size Matrix & Technical Specifications	Area 314 mm² Eu 28.71 20 mm	Area 363 mm² Eu 28. E 21.5 mm	Area 415 mm² 8.2 23 mm	Area 471 mm² Eu 22.81 24.5 mm
Perimeter	62.83 mm	67.54 mm	72.26 mm	76.97 mm
Native annulus area	270 - 330 mm²	314 - 380 mm²	360 - 440 mm²	410 - 500 mm²
Area-derived diameter	18.5 - 20.5 mm	20 - 22 mm	21.4 - 23.7 mm	22.8 - 25.2 mm
Native annulus size by TEE	16 - 19 mm	17.5 - 20.5 mm	18 - 22 mm	19.5 - 23.5 mm

All Myval THV Diameters (20 mm to 32 mm) are Compatible with 14Fr Python - Introducer Sheath

← Myval THV XL Sizes →

			•	
Area 531 mm² 18.82 26 mm	Area 594 mm² U 37.5 mm 27.5 mm	Area 661 mm² 20.32 mm 29 mm	Area 731 mm² 6:02 30.5 mm	Area 804 mm² 32 mm
81.68 mm	86.39 mm	91.11 mm	95.82 mm	100.53 mm
460 - 560 mm²	510 - 630 mm²	570 - 700 mm²	630 - 770 mm²	700 - 840 mm²
24.2 - 26.7 mm	25.5 - 28.3 mm	26.9 - 29.9 mm	28.3 - 31.3 mm	29.9 - 32.7 mm
21 - 25 mm	22.5 - 26.5 mm	24 - 28 mm	25.5 - 29.5 mm	27 - 31 mm

Myval THV: Post Deployment Dimensions Chart





Largest circumscribable diameter in Open Cell (for all Myval THV Diameters 20mm to 32mm)

Myval THV Diameters (Ø)	20 mm	21.5 mm	23 mm		
Total frame height	Total frame height 17.35 mm		17.85 mm		
Open cell height (53%)	9.20 mm	9.73 mm	9.46 mm		
Closed cell height (47%)	8.15 mm	8.62 mm	8.39 mm		
Infra-annular depth [*]	3.05 mm	3.20 mm	2.85 mm		
Supra-annular height of closed cells	- 1 () po po		5.54 mm		
Recommendation for coronary protection	10 mm	10 mm	10 mm		

- A balloon occlusion test may be considered to assess the propensity for coronary occlusion
- Balloon diameter approximated to shortest axis of CT-derived annular diameter to be considered

^{*} Infra-annular depth may depend on final landing zone position prior to valve deployment. The values mentioned are indicative range.

← Myval THV XL Sizes →

24.5 mm	26 mm	27.5 mm	29 mm	30.5 mm	32 mm	
18.75 mm	18.85 mm	19.25 mm	20.35 mm	20.90 mm	21.14 mm	
9.94 mm	9.99 mm	10.20 mm	10.20 mm 10.79 mm 11.08 mm		11.21 mm	
8.81 mm	8.86 mm	9.05 mm	9.56 mm	9.82 mm	9.94 mm	
2.95 mm	3.05 mm	3.15 mm	3.35 mm	3.45 mm	3.55 mm	
5.86 mm	5.81 mm	5.90 mm	6.21 mm	6.37 mm	6.39 mm	
10 mm	10 mm	10 mm	10 mm	10 mm	10 mm	

[•] Consider protection of coronary arteries with a DES especially if height of coronary ostium is <10 mm from the annular plane and in conjunction with sinus of valsalva dimensions i.e. height & diameters

Navigator THV Delivery System Delivering TAVI Made Easy

- Myval THV is recommended to be crimped over Navigator THV Delivery System prior to insertion within introducer sheath
- The crimped valve with delivery system is then loaded through 14Fr Python Introducer Sheath

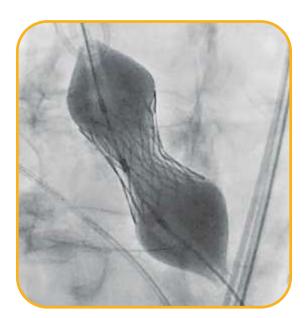


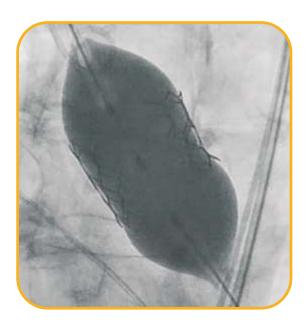
- Navigator delivery system has a set of proximal and distal stoppers which ensure that valve crimping is precise and snug
- Visual confirmation of crimped valve can be ensured before entering the sheath to avoid any crimping errors/defects
- The stoppers prevent inadvertent migration of the valve & ensure there is no risk of valve dislodgement (embolization) during entry through the sheath or while negotiating the loaded delivery system across the aorta
- Myval THV direct crimping on the balloon makes TAVI delivery simple, intuitive and eliminates unwarranted procedural steps

Navigator THV Delivery System Characteristic Balloon Expansion

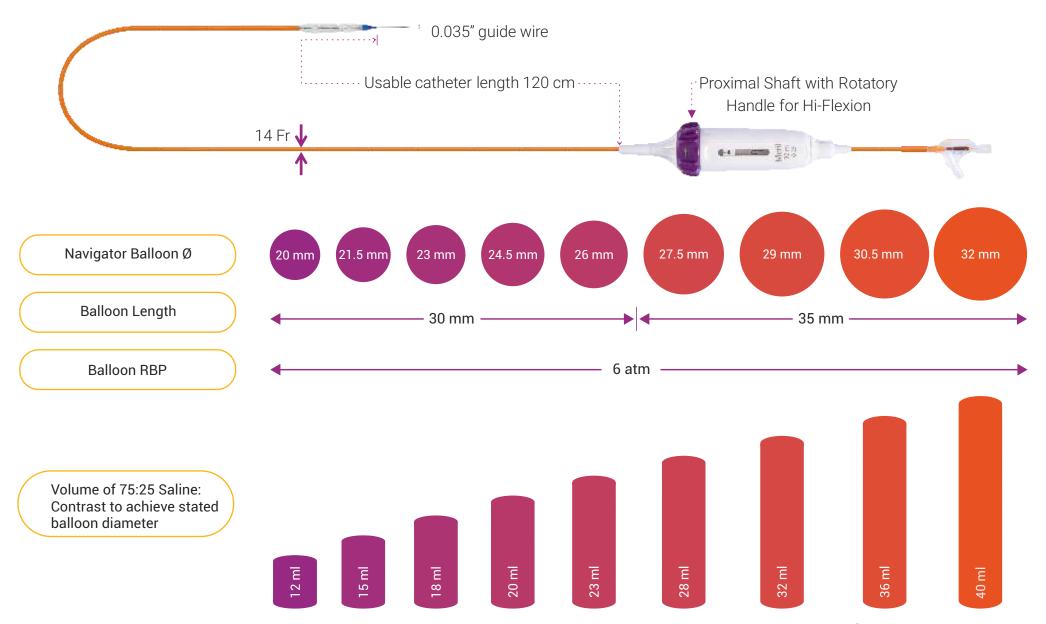
- Navigator balloon with dual expansion ports at each end ensures rapid, simultaneous, controlled expansion (dog-boning) of distal and proximal ends
- This typical dog bone pattern of inflation steadies the valve during expansion phase, ensuring its precise annular position and deployment without any risk of valve migration
- Rapid balloon inflation, using an inflation device is possible with controlled palm thrust
- Rapid balloon deflation within 3-5 sec ensures procedural safety and compliance





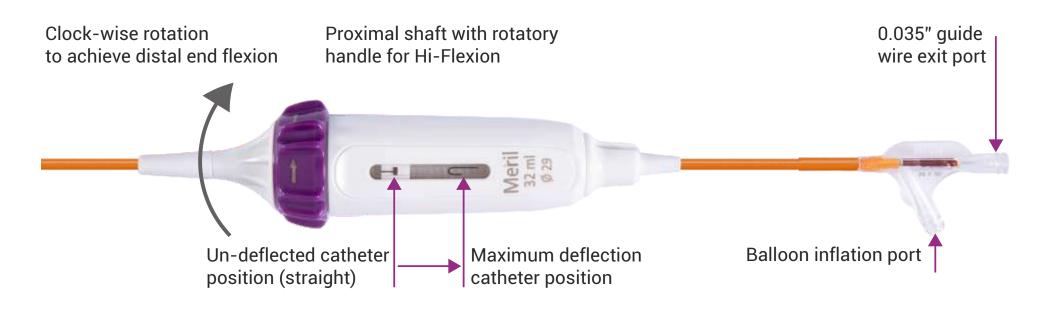


Navigator THV Delivery System

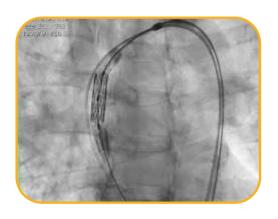


Navigator - THV Delivery System has been indigenously developed by Meril Life Sciences Pvt. Ltd.

Navigator THV Delivery System: Proximal Assembly



Hi-flexion feature ensures tracking the THV delivery system via inner aortic arch curve thereby minimizing the risk of contralateral wall scraping







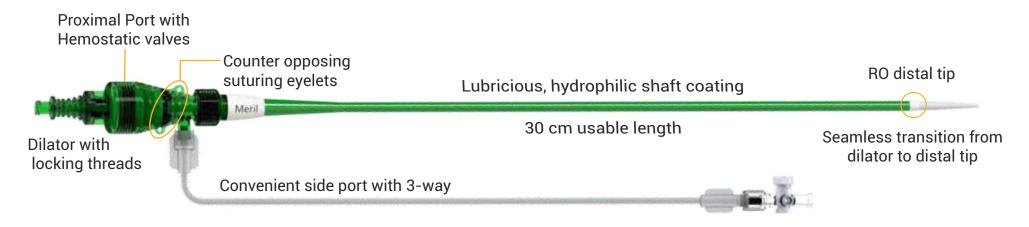
Caution: Always remember to fully un-flex the Navigator system while withdrawing

14Fr Python – Introducer Sheath Compatible with all Myval THV Diameters (20 mm to 32 mm)

Sheath expands momentarily like a python swallowing its prey Conveniently allows passage of crimped Myval THV System

14Fr Entry Profile, Allows Atraumatic Percutaneous Access

High convenience for full retrievability of an un-deployed Myval THV System





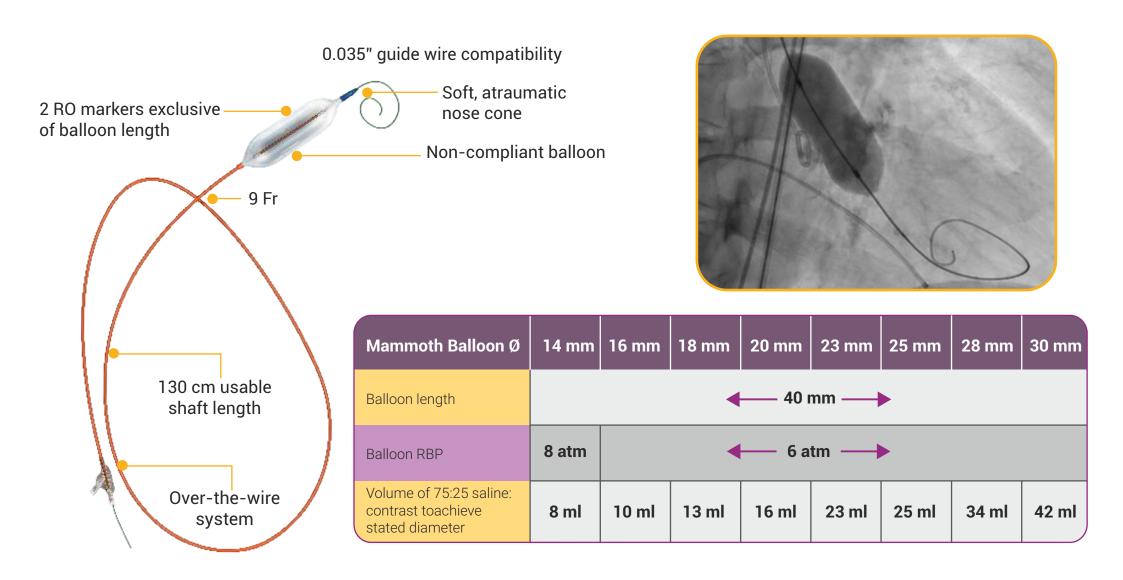
Two separate, calibrated loading tubes ensure temporary opening of hemostatic valves in proximal port allowing smooth passage of crimped Myval THV System

Common Femoral Artery* Ø (n	nm) Myval THV Ø (mm)					
≥ 5.50 mm	20 mm, 21.5 mm, 23 mm, 24.5 mm					
≥ 6.00 mm	26 mm, 27.5 mm, 29 mm					
≥ 6.50 mm	30.5 mm, 32 mm					
*CFA Ø must be MSCT derived. Excluding circumferential Ca ²⁺						

Python - Introducer Sheath has been indigenously developed by Meril Life Sciences Pvt. Ltd.

Mammoth - OTW Balloon Catheter

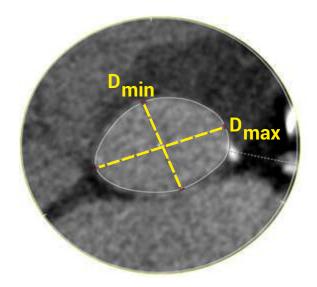
Pre-dilatation is entirely operator's discretion and not mandatory



Mammoth – OTW Balloon Catheter has been indigenously developed by Meril Life Sciences Pvt. Ltd.

Pre-Dilatation & Balloon Sizing Rationale

- Balloon diameter approximated to shortest axis of annular diameter measured on MSCT to be considered in order to -
 - Ensure controlled crossing of THV across the diseased, narrowed annulus (AVA)(prevent abrupt jumping into LV)
 - Minimize unwarranted risk of AR due to pre-dilatation
 - Reduce propensity for iatrogenic damage to the conduction system
 - Simulate expansion behavior of the diseased native leaflets
 - Assess potential risk of ostial jailing and estimate coronary perfusion



AoV Annulus Cross-sectional View



Myval THV: Global Clinical Program



30-day f/up est. @ PCR-LV 2021	1-year f/up est. @ EuroPCR 2023	1-year f/up est. @ EuroPCR 2023	First patient first visit est. @ QIV 2021	First patient first visit est.@ QIV 2022
Data collection in progress	Enrollment has started	Currently enrolling	Under planning	Pre-study activities initiated
Real world STS	Real world STS	Real world STS	Real world STS	Real world STS
20 EU sites	10 Nordic + EU sites	50+ EU/ANZ sites	100 Global sites	10 China sites
Retrospective EU Registry	Prospective study	Prospective study	Prospective study	Prospective study
Single arm	RCT – 1:1 Myval : Sapien 3	RCT - 2:1:1 Myval : Sapien : Evolut THV series	Single arm	Single arm
Meril Initiated	Investigator Initiated	Meril Initiated	Meril Initiated	Meril Initiated

MyVal-1: Study Design

A prospective, multicentre, single-arm, open-label study of Myval THV in the treatment of severe symptomatic native aortic valve stenosis.

Total number of patients: 100

Device Sizes – 20, 21.5, 23, 24.5, 26, 27.5 and 29 mm

CLINICAL FOLLOW-UP







Dr. Samin Sharma - Chairman New York, USA



Dr. Ashok Seth - Principal Investigator New Delhi, India



Dr. Praveen Chandra - Co-ordinating Pl New Delhi, India



Dr. Ravinder Singh Rao - Co-ordinating Pl Jaipur, India



Dr. P. K. Goel - Scientific Advisor Lucknow, India

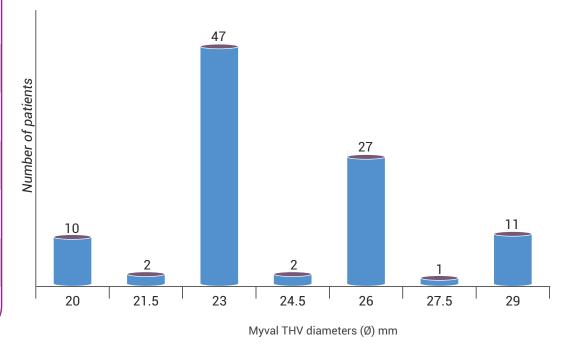
Study Investigators: Samin Sharma, Ravinder Singh Rao, John Jose, Praveen Chandra, Pravin K. Goel, G. Sengottuvelu, Prashant Bharadwaj, C. N. Manjunath, P. C. Rath, Rajiv Chandrasekharan Nair, Rajpal Abhaichand, Ajit Mullasari, V. K. Ajith Kumar, Ajaykumar U. Mahajan, Ganesh Kumar, Jaspal Singh Arneja, Keyur Parikh, R. K. Jain, S. M. Sharma, B. B. Chanana, Jagdish Parikh, M. S. Hiremath, Rishi Sethi, Rony Mathew Kadavil, R. R. Mantri, Sanjay Mehrotra, Tarlochan Singh Kler, T. R. Murlidharan, Vijay Trehan, Ashok Seth MyVal-1 Study (CTRI/2016/11/007512)

Sharma SK, et.al. First-in-human evaluation of a novel balloon-expandable transcatheter heart valve in patients with severe symptomatic native aortic stenosis: the MyVal-1 study. EuroIntervention. 2020 Aug 28;16(5):421-9. PMID: 31566572. doi: 10.4244/EIJ-D-19-00413 Erratum for: EuroIntervention. 2020 Aug 28;16(5):421-429. PMID: 32855114. doi: 10.4244/EIJ-D-19-00413C

MyVal-1: Baseline Characteristics

Patient History	
Average Age (years)	73.51 ± 7.49
Mean STS	5.12 ± 1.64
History of Coronary Artery Bypass Graft surgery	17%
History of Previous PCI	13%
History of Previous Aortic Valvuloplasty	1%
History of Cerebro-Vascular Events	3%
Peripheral Vascular Disease	3%

Based on the annular size, a bioprosthetic valve of specific size was decided for each patient



- When novel intermediate sizes of the transcatheter heart valves were introduced, recruitment of only 10% of
 patients was remaining (of 10 patients, 5 patients were implanted with the intermediate-size study device)
- 23 mm transcatheter heart valve was implanted in 47% of the patient population- reflective of the Indian aortic annulus anatomy

MyVal-1: Cumulative Clinical Outcomes up to 1-Year Follow-up

Clinical Events#	Post-procedure (n=100)	1-Month Follow-Up (n=100)	6-Month Follow-Up (n=100)	12-Month Follow-Up (n=100)
Survival	98%	97%	91%	87%
All-cause Mortality	2%	3%	9%	13%
All Stroke	1%	2%	2%	2%
Disabling	0%	1%	1%	1%
Non-disabling	1%	1%	1%	1%
Acute Renal Failure	2%	2%	2%	2%
Life-threatening or disabling bleeding	1%	1%	1%	1%
Endocarditis	0%	0%	1%	1%
Myocardial Infarction	0%	0%	0%	1%
Vascular Complications	3%	3%	3%	3%
Repeat Hospitalization	NA	8%	11%	17%
New Permanent Pacemaker	2%*	2%	2%	2%

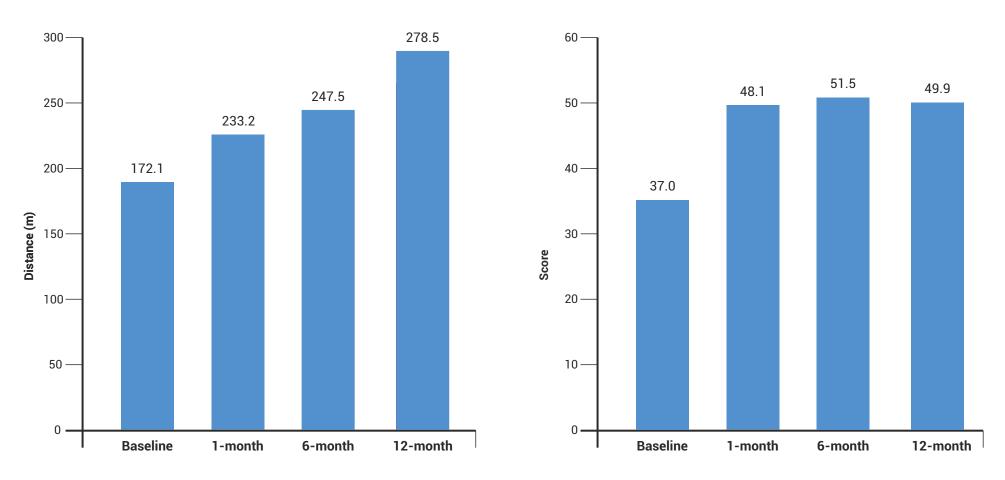
^{*}One patient had RBBB pre-procedure

^{*}Kappetein AP, Head SJ, Généreux P, et al. Updated standardized endpoint definitions for transcatheter aortic valve implantation: the Valve Academic Research Consortium-2 consensus document. Eur Heart J. 2012;33:2403-2418.

MyVal-1: Marked Improvement in Quality of Life Parameters

Six-minute walk test

Kansas City Cardiomyopathy Questionnaire Score

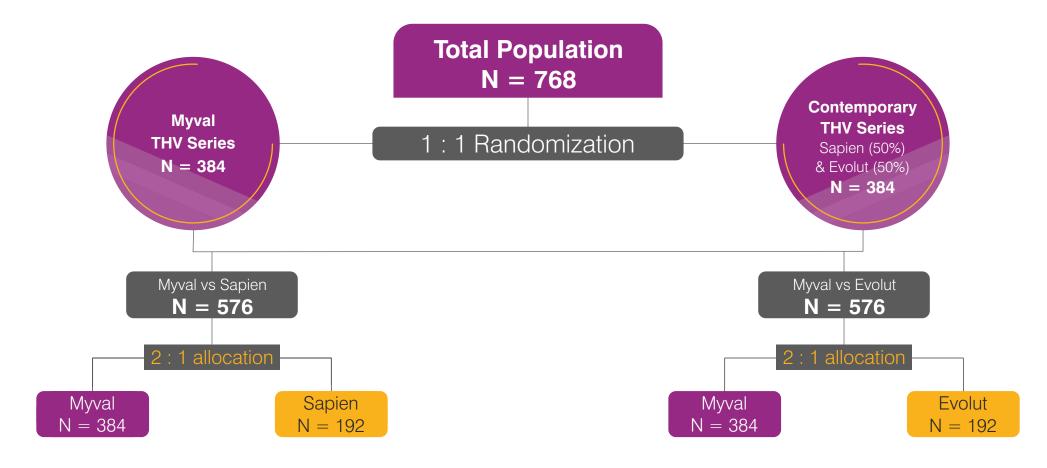


There was significant improvement in six-minute walk test and Kansas City Cardiomyopathy Questionnaire score from baseline to 12 months

MyVal-1: Study Conclusion

- In 100 intermediate to high-risk patients of MyVal-1 study, the next-generation balloon-expandable transcatheter heart valve system demonstrated favourable clinical and haemodynamic outcomes at 12-month follow-up
 - 87% survival and low incidence of all stroke (2%)
 - Low rate (2%) of new permanent pacemaker implantation
 - High procedural success that can be attributed to precise orthotopic valve positioning
- In real-world global experience of 2500+ cases; Myval THV has been consistently demonstrating high procedural success and clinical performance
 - Unique hybrid honey-comb geometry for precise positioning and orthotopic deployment
 - Preserve THV geometry & respect patient's anatomy. Large size matrix: Conventional Ø 20, 23, 26, 29 mm,
 Intermediate Ø 21.5, 24.5, 27.5 mm & XL Ø 30.5, 32 mm
 - Direct THV crimping on Navigator balloon makes TAVI delivery simple, intuitive and eliminates unwarranted procedural steps
 - Compatibility of novel 14Fr Python Introducer Sheath for all Myval THV Øs (20-32 mm); with high convenience of full retrievability of an un-deployed Myval THV system

LANDMARK Trial – 50+ Sites EU+ANZ



Primary Endpoint – 30 Days

All cause mortality | All stroke | Life-threatening bleeding | Vascular complications Acute kidney injury | Paravalvular leak | New permanent pacemakers

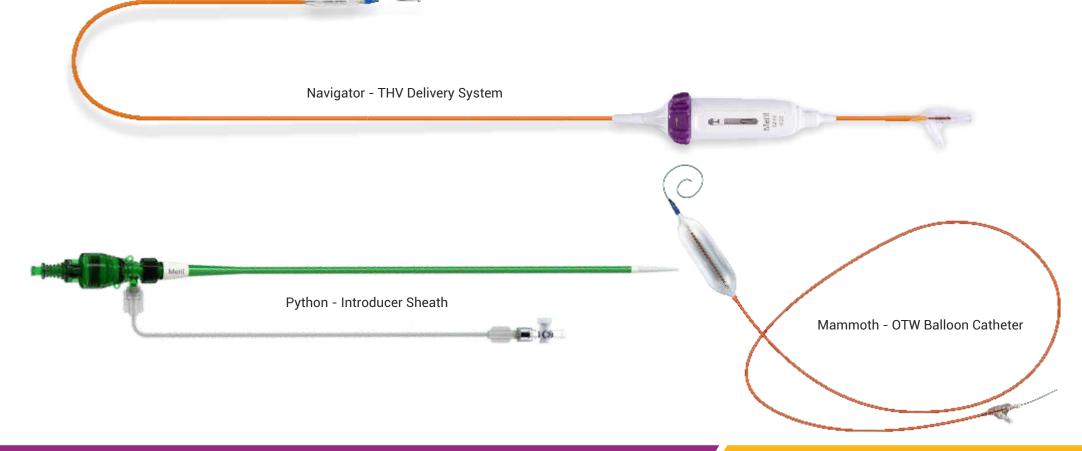
ECG/Echo Follow-up Video Densitometry Clinical Follow-up Baseline | Post Procedure | 30 D | 1 Y | 3 Y | 5 Y Post Procedure
Upto 10 years

Currently enrolling

Myval THV System and Components



Myval - THV



Myval THV System and Components - Ordering Information

Myval - THV

Diameters	20.0 mm	21.5 mm	23.0 mm	24.5 mm	26.0 mm	27.5 mm	29.0 mm	30.5 mm	32.0 mm
Product code	MVL200	MVL215	MVL230	MVL245	MVL260	MVL275	MVL290	MVL305	MVL320

Navigator - THV Delivery System

Diameters	20.0 x 30 mm	21.5 x 30 mm	23.0 x 30 mm	24.5 x 30 mm	26.0 x 30 mm	27.5 x 35 mm	29.0 x 35mm	30.5 x 35 mm	32.0 x 35 mm
Product code	NVT20030	NVT21530	NVT23030	NVT24530	NVT26030	NVT27535	NVT29035	NVT30535	NVT32035

Mammoth - OTW Balloon Catheter

Diameters	14.0 x 40 mm	16.0 x 40 mm	18.0 x 40 mm	20.0 x 40 mm	23.0 x 40 mm	25.0 x 40 mm	28.0 x 40 mm	30.0 x 40 mm
Product code	MTV1440	MTV1640	MTV1840	MTV2040	MTV2340	MTV2540	MTV2840	MTV3040

Python - Introducer Sheath

Product code PHT14

Val-de-Crimp - Heart Valve Crimping Tool

Product code VLDC





More to Life

Check availability of Myval THV in your country

Meril's Global Presence







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