

# LOTUS Edge Martic Valve System

**Product Overview** 

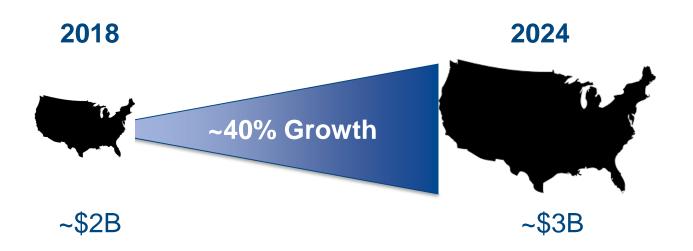
for the Hospital Administrator



#### Transcatheter Aortic Valve Market Steadily Growing



#### TAVR Market Growth Projection<sup>1</sup>





#### **Growth Drivers**

- Aging US population
- Increased awareness of minimally invasive options
- Expanding indications to lower risk populations

<sup>1.</sup> Edwards Lifesciences 2018 Investor Conference, 12/5/18

<sup>2.</sup> Holmes, D, et. al., Annual Outcomes with Trancatheter Valve Therapy: From the STS/ACC TVT Registry, JACC, 29 December, 2015.

#### Opportunities Remain to Evolve your TAVR Program



#### **PATIENT OUTCOMES**

**COMPLICATION RATES** 

**LENGTH OF STAY** 

**COST VARIATION** 

PROCEDURAL EFFICIENCY

PATIENT SATISFACTION





#### Complications Impact Cost, Mortality & Quality of Life



## TAVR Complications Associated with Mortality & Quality of Life<sup>1</sup>

~6x

Risk of death in one year if stroke occurs, driving a 33% increase in TAVR hospitalization costs<sup>2</sup>

~2x

Risk of death in one year with moderate/severe PVL<sup>3</sup>

## TAVR Complications Increase Cost\*

\$12,475

Per patient cost attributed to complications<sup>4</sup>

2.4

Additional days of hospitalization due to complications<sup>4</sup>

25%

Of non-implant related hospital costs are driven by complications<sup>3</sup>

\*Complications Associated with Increased Cost: Death, major stroke, major bleeding, renal failure, arrhythmia, repeat TAVR, surgical AVR

<sup>1.</sup> PARTNER 2 and S3 data (Edwards valves) used to examine the impact of peri-procedural complications on mortality and quality of life at 1 year after TAVR – 3763 patients of high/intermediate risk

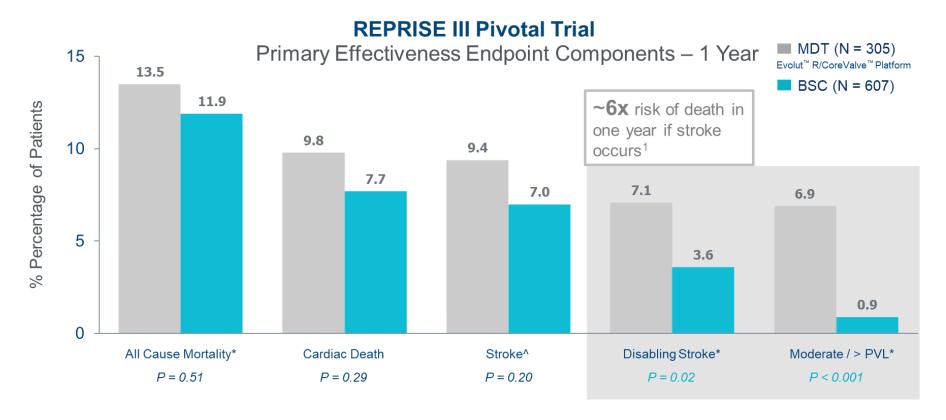
<sup>2.</sup> Alqahtani, F. et. al. Clinical and Economic Burden of Acute Ischemic Stroke Following Transcatheter Aortic Valve Repair, The Journal of the Heart Team, November 16, 2018

<sup>3.</sup> Arnold S, Zhang Y, Baron S, et al. Impact of Peri-Procedural Complications on Mortality and Quality of Life after TAVR. Circ Cardiovasc Interv. 2014;7:829-836

Arnold SV et al. Circ Cardiovascular Interv 2014: 829-36

## LOTUS *Edge*™ is the Only Valve that Demonstrated Head-to-Head Superiority in Reduction of Disabling Stroke & Moderate/Severe PVL



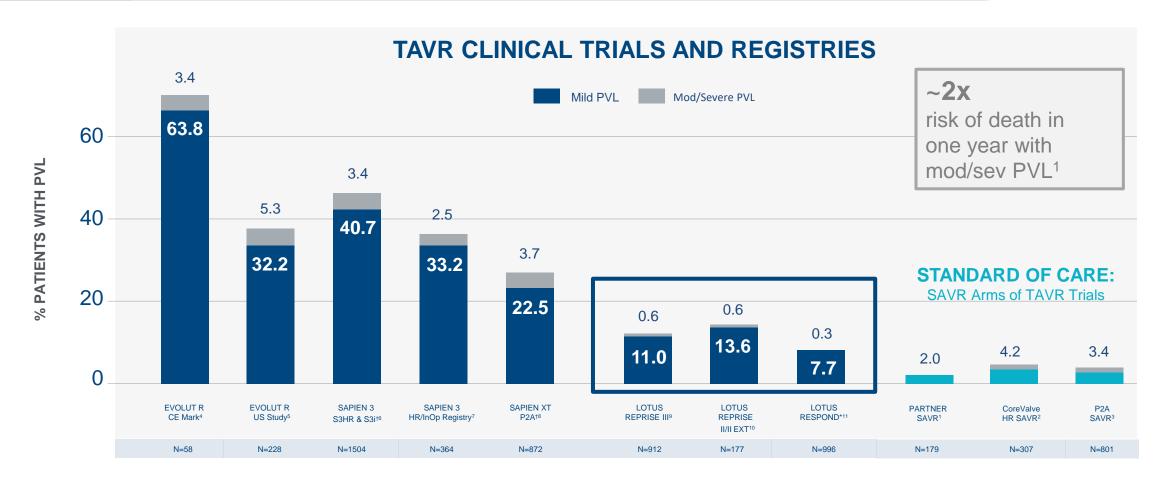


Primary Effectiveness Endpoint LOTUS Valve = 15.8% v. Evolut R / CoreValve Platform = 26.0% Superiority P < 0.001

Primary Safety Endpoint LOTUS Valve = 20.3% v. Evolut R / CoreValve Platform = 17.2% Non-inferiority P = 0.003

#### LOTUS *Edge*<sup>TM</sup> PVL Rates in Perspective





#### Lower PVL rates may delay the onset of heart failure and reduce readmissions

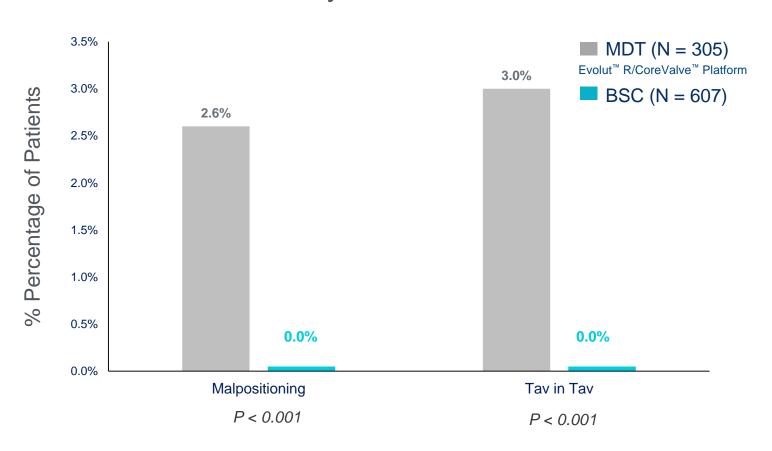
<sup>1.</sup> Arnold S, Zhang Y, Baron S, et al. Impact of Peri-Procedural Complications on Mortality and Quality of Life after TAVR. Circ Cardiovasc Interv. 2014:7:829-836

<sup>\*7</sup>d/Discharge; 30d angiography not mandated per protocol. †Intermediate risk patient population. Results from different studies are not directly comparable. Information provided for educational purpose only. ¹Leon, NEJM 2012 Supp. Appendix. ²Adams, NEJM 2014 Suppl. Appendix. ³Thourani, Lancet 2016 Suppl. Appendix. ⁴Manoharan, JACC 2015. ⁵Popma JACC 2017. ⁶Kodali , EHJ 2016. ¬Hermann, Circulation 2016. ŶLeon NEJM 2016. ŶFeldman, PCR 2017. ¹¹0Meredith, PCR LV 2014. ¹¹²Falk V, PCR 2016.

## LOTUS *Edge*™ Showed Superior Procedural Outcomes in REPRISE III



#### REPRISE III: 30-Day Procedural Outcomes<sup>1</sup>





100%

**REPOSITIONABLE** at

100%

**DEPLOYMENT** with

0%

**MALPOSITIONING IN** 

REPRISE CLINICAL TRIALS<sup>1,2\*</sup>

<sup>1.</sup> Feldman TE, et al. JAMA 2018;319:27-37

<sup>2.</sup> Meredith IT, et al. EuroIntervention 2017;13:788-954

#### LOTUS *Edge*<sup>™</sup> is Designed for Complete Control & Predictable Results



#### **LOTUS Edge™ Design Goals**

## Repositionable after 100% Deployed

Know your final result before release

#### **Adaptive Seal™**

Minimize paravalvular leak by conforming to irregular anatomical surfaces

#### **Braided Nitinol Frame**

Designed for strength, flexibility, and ability to retrieve, reposition, and redeploy

#### **Bovine Pericardium**

Proven Long-Term Material

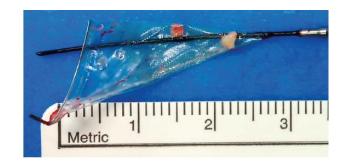
## Sentinel Embolic Protection System Provides Additional Stroke Protection for your Most Vulnerable Patients





# In SENTINEL IDE Trial, captured and removed embolic debris in

 99%¹ of TAVR patients, regardless of valve type



## Protected TAVR patients had

 63% fewer strokes when compared to unprotected TAVR patients, a 3-4% absolute stroke rate reduction<sup>1,2,3</sup>

## Peri-procedural strokes drive

- 67% increase in LOS<sup>4</sup>
- 37% increase in hospital charges<sup>4</sup>
- 31% increase in 30-day readmissions<sup>4</sup>

# Available NTAP for additional reimbursement (\$0 - \$1,400)

CMS will pay 50% of the excess between estimated hospital costs and payments for the claim<sup>5</sup>

<sup>1.</sup> Kapadia SR. et al. Protection Against Cerebral Embolism During Transcatheter Aortic Valve Replacement. J Am Coll Cardiol. 2017 Jan 31;69(4):367-377.

<sup>2.</sup> Seeger J et al. 2017. JACC Cardiovasc Interv. 10(22)2297-2303;

<sup>3.</sup> Van Mieghem N. presented at TVT 2018; Chakarvarty T. presented at TVT 2018

<sup>4.</sup> Alkhouli M. Algahtani F. et al. Outcomes of Acute Ischemic Stroke After TAVR: Potential Impact of Embolic Protection ACC 2018.

<sup>5.</sup> CMS IPPS Final Rule (2019), <a href="https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/FY2019-IPPS-Final-Rule-Home-Page-Items/FY2019-IPPS-Final-Rule-Regulations.html?DLPage=1&DLEntries=10&DLSort=0&DLSort=0&DLSort=10&DLSort=

#### LOTUS *Edge*™ and Your TAVR Program Goals



## **Differentiated Patient Outcomes**

- Highly calcified annuli:
   Adaptive Seal™ supports
   improved outcomes
- Low EF patients: No rapid pacing required & improved hemodynamic stability

## Low Complication Rates in REPRISE III Clinical Trial

- 3.6% disabling stroke rate vs.
   7.2% with CoreValve<sup>™</sup> at 12 months, p=0.02
- 0.9% moderate to severe PVL rate vs. CoreValve's<sup>™</sup> rate of 6.9% at 12 months, p<0.001</li>

## Predictability and Control

- 0% malpositioning in REPRISE trials
- Valve functionality can be assessed prior to release



Enhance Patient Experience



Strengthen Quality Outcomes



Improve Financial Health



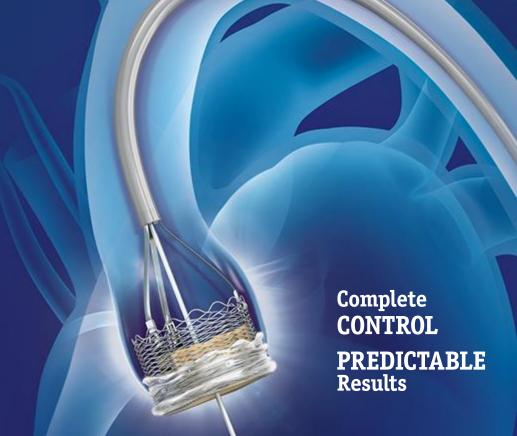
Increase Operational Efficiencies



# LOTUS Edge Martic Valve System

#### **Product Overview**

for the Hospital Administrator



## **APPENDIX**



#### LOTUS *Edge*™ Research Pathway



