2017 euro PCR

Innovating Imaging for Structural Heart Interventions

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EAPCI · EUROPEAN SOCIETY OF CARDIOLOGY · EACTS · PCR

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Potential conflicts of interest

Speaker's name: Bernard Prendergast

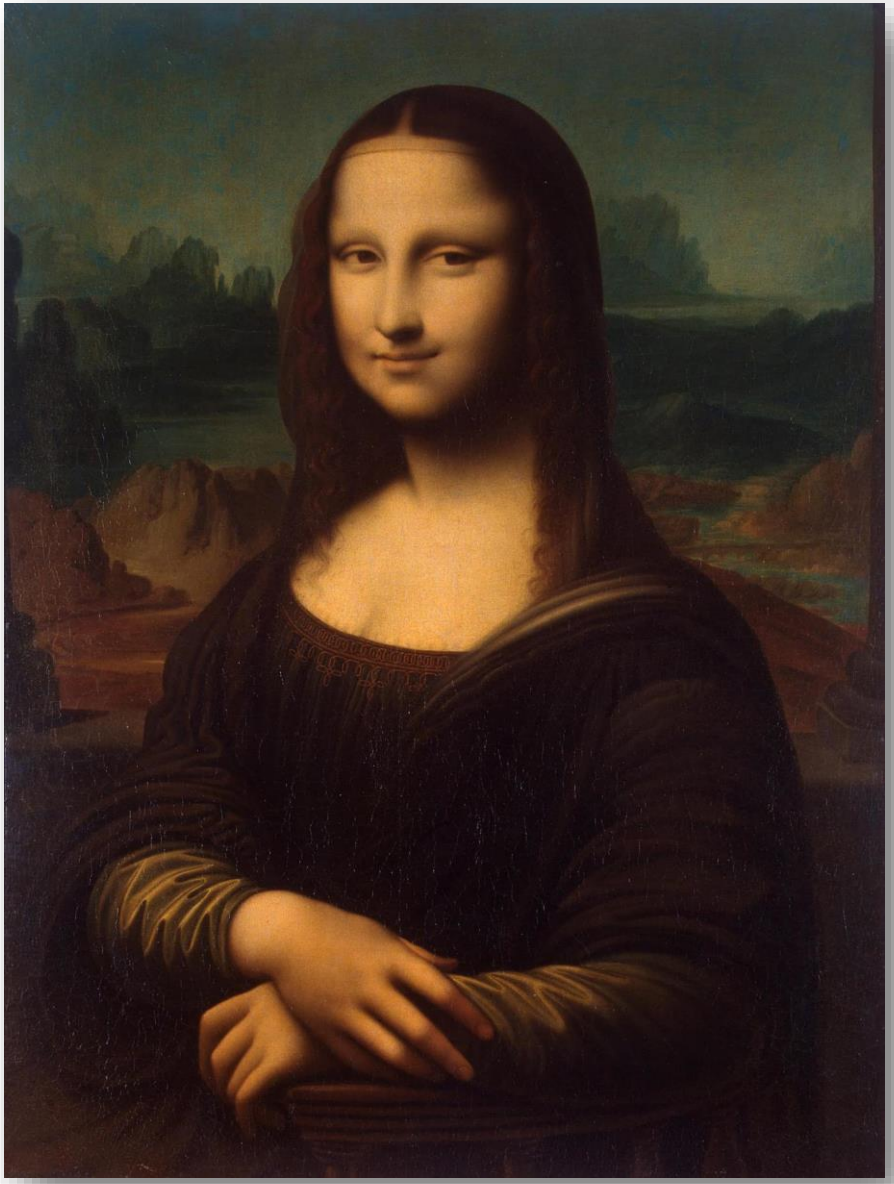
☑ **I have the following** potential conflicts of interest to report:

Honoraria:

BOSTON SCIENTIFIC

EDWARDS LIFESCIENCES

SYMETIS



A picture tells a thousand words…

Background

MAR2015

- Bicuspid aortic valve is more common than we think
- AS results from premature valve degeneration and is often associated with aortopathy
- Extension of TAVI to younger, lower risk cohorts will involve more frequent use in bicuspid valves

- AF confers a 5-fold increase in the risk of stroke
- >90% of stroke-causing clots that come from the left atrium are formed in the LAA
- LAA closure reduces the risk of stroke

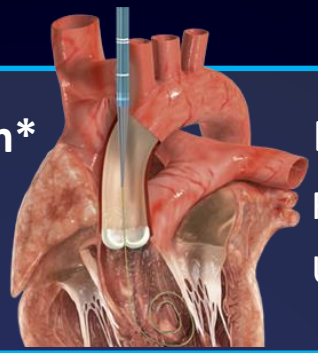
- Precise valve sizing is key in BAV patients to reduce the risk of paravalvular AR
- There are numerous variants of LAA anatomy - precise characterisation is essential for optimal device selection
- >30% of patients currently referred for TAVI are in AF
- Combined TAVI and LAAC procedures may reduce risk of peri-procedural stroke

LOTUS Edge: The New Generation BSC TAVI Device

iSleeve™ Expandable Sheath*

14F /15F ID design

Improved vessel access



BOLT™ Direct Access Sheath

Reduced length

Uncoated with multiple markers

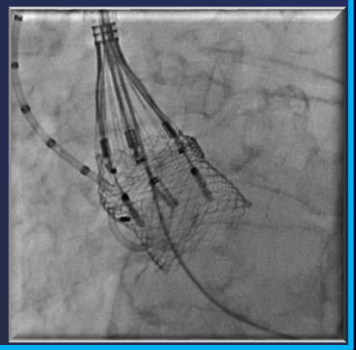
LOTUS Edge™ Valve System

Enhanced flexibility

Optimizing valve deployment

One-view locking with RO markers

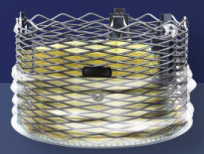
Limited depth of implant with Depth Guard

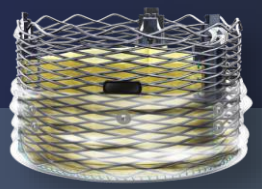


Five Valve Sizes

21mm*

29mm*





18mm – 29mm

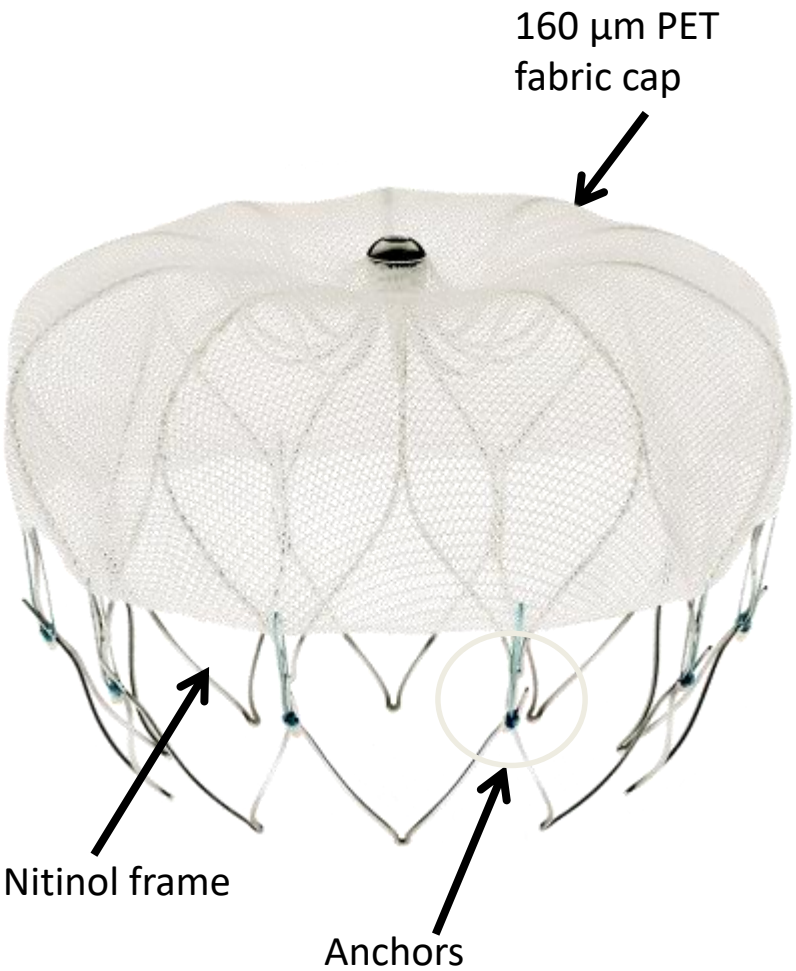
Annulus Size

*Not yet commercially available.

The Lotus™ Valve System / LOTUS Edge™ Valve System may only be used in countries where it is approved for use. The Lotus™ Valve System / LOTUS Edge™ Valve System is not available for sale in the European Economic Area. For educational purposes only.

WATCHMAN™

Left Atrial Appendage Closure Device



- Intra-LAA design
- 160 µm Polyethylene terephthalate (PET) cap
- PET cap designed to block emboli from exiting the LAA
- PET cap intended to promote endothelialisation during healing process[1,2,3]
- 10 active fixation anchors around device perimeter engage LAA tissue for stability and retention
- Nitinol frame radially expands to maintain position in LAA
- Engineered to conform to the individual anatomy of the LAA
- Size metrics: 21, 24, 27, 30, 33 mm (diameter)

1. Data on file Boston Scientific
2. Schwartz et al., Healing Stages of Intracardiac Devices. JACC vol. 3. 870-7. 2010
3. Kar et al. Anatomical Impact of LAA Closure Devices. JACC: Cardiovascular Interventions. Vol. 7: 801-9, 2014

Manufacturer: Boston Scientific

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Session Objectives

- To understand the benefits of advanced imaging techniques in complex structural heart interventions
- To recognise how imaging and valve selection can minimise paravalvular leak
- To learn how imaging can improve accuracy of LAA closure procedures