# Novel Conformable Foam-Based Implant for Left Atrial Appendage Closure: Conformal EFS Experience

William A. Gray, MD, Lankenau Heart Institute, PA

Sheetal Chandhok, MD, Lankenau Heart Institute, PA, Jamie H. Kim, MD, Catholic Memorial, NH, Robert J. Sommer, MD, Columbia, NY, Lissa Sugeng, MD, Yale, CT, Molly Szerlip, MD, & Mustafa Dohadwala, MD, Baylor Scott & White, TX, Christopher Cain, Conformal Medical, NH, Aaron V. Kaplan, MD, Dartmouth Hitchcock, NH

#### **Disclosure Statement of Financial Interest**

I, William A. Gray, MD, DO NOT have a financial interest/arrangement or affiliation with one or more organizations that could be perceived as a real or apparent conflict of interest in the context of the subject of this presentation.

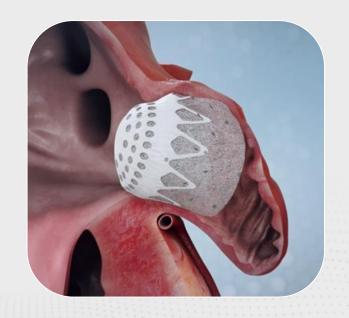
Faculty disclosure information can be found on the app

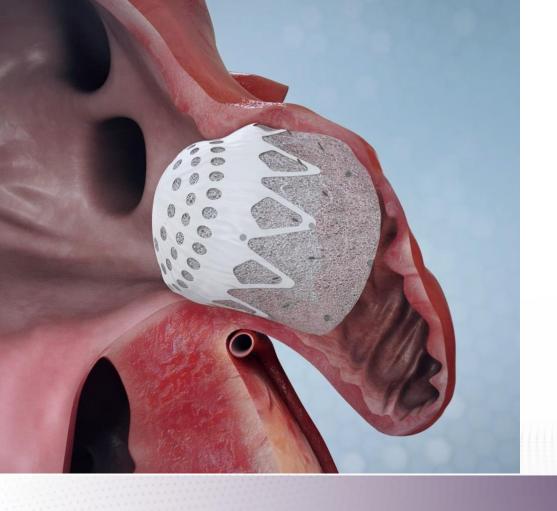
#### **US Conformal Early Feasibility Study (EFS)**

## Conformal Medical's CLAAS® Implant

EFS IDE, First-in-Human

Single arm, multi-center (4) feasibility study





# **Conforms to a variety** of LAA sizes and shapes

- Consistent seal
- Simple delivery
- Designed to reduce DRT

#### **Conformal CLAAS Device**

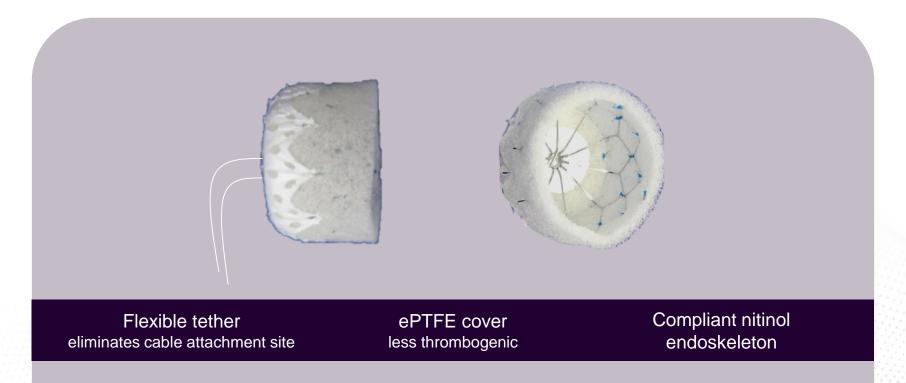
CONFORMABLE FOAM MATRIX CUP



2 sizes intended to cover majority of LAA configurations

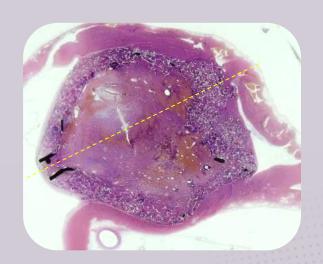
#### **Conformal CLAAS Device**

**DESIGNED TO MINIMIZE THROMBUS** 

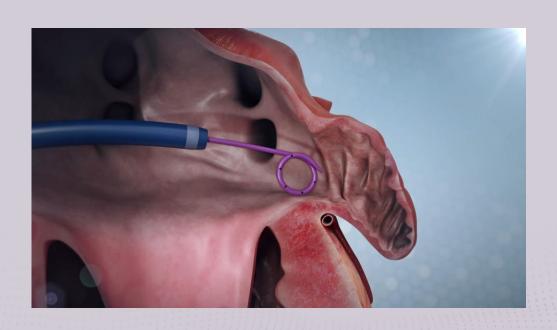


#### **Consistent Seal with Off-Axis Positioning**





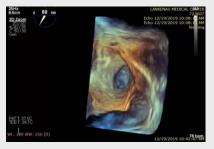
#### **Conformal CLAAS Procedure**

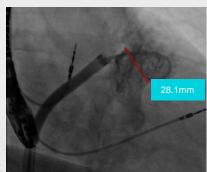


#### Case Example: Large, Shallow LAA

- 71 y/o F
- Hx of GIB
- CHA<sub>2</sub>DS<sub>2</sub>VASc 3
- TEE measured
- Dia<sub>max</sub>: 25mm
- Dia<sub>min</sub>: 15mm
- Depth: 19mm





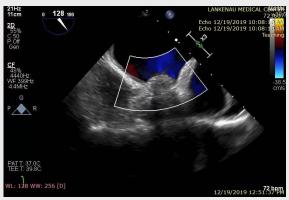


#### **Deployment**



#### **Post-Release**







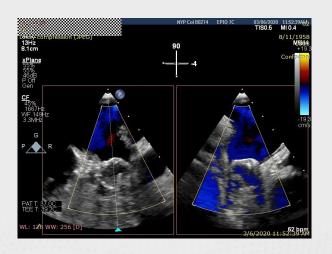
## 45 Day TEE





#### 1-Year FU TEEs

Patient 1803-01





## **US EFS Study Results**\*

Enrolled Patients	22
Successful Implants	18 (4 LAA's too large for regular implant)
Age	74.0 ± 8.7 years
CHA <sub>2</sub> DS <sub>2</sub> -VASc	4.4 ± 1.7
Device Procedural Complications	0
FU (45D, 6M, 1YR)	20, 15, 4
LAA Diameters (Mean/Range)	18.7 ± 3.5 mm (9.1-30.7 mm)
Conformal Sizes Used (n)	17 Regular, 1 Large
Leaks (45D)	2 (10mm missed lobe, 1mm)
Device Related Thrombus (45D)	1

#### **Conformal CLAAS Design**

ePTFE COVER ALLOWS FOR LEAK DETECTION WITH ANGIOGRAPHY





#### **Conformal CLAAS EFS: Conclusions**

- CLAAS LAAO system has shown feasibility and safety
  - TEE shows conformability with encouraging sealing results
- Only 2 sizes address large range of LAA anatomies
- EFS continuation and Pivotal trial anticipated 2021

#### **Conformal Next Steps**

#### **EFS Continuation Study**

- Prospective, single-arm, multicenter study
- Evaluate Gen 2 Delivery System
- Validate pivotal device delivery protocol
- N ~ 30
- First patient: Q1 2021

#### **Pivotal Trial**

- RCT: Conformal CLAAS vs.
  Watchman/FLX 1:1, n ~ 1,400
- Primary endpoint: 1-year clinical events, device seal
- Secondary endpoint: 18-month stroke & systemic embolism
- First patient: Q2 2021

## Thank you