



IDE TRIAL SUMMARY

# AMPLATZER™ AMULET™ LEFT ATRIAL APPENDAGE OCCLUDER

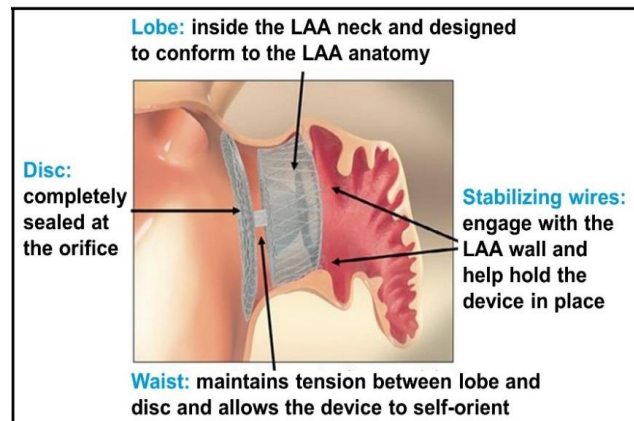


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# AMULET IDE TRIAL BACKGROUND

- The Amulet IDE trial was initiated in 2016 to establish safety and effectiveness of the Amplatzer™ Amulet™ LAA occluder to reduce the risk of thrombus embolization from the LAA in patients with non-valvular atrial fibrillation
- The Amplatzer Amulet LAA occluder received CE Mark in January 2013 and is a 2nd generation device
  - Final two-year results of the prospective real-world post market Amulet Observational Study including 1088 patients were published in 2020
- During enrollment of the trial, Watchman<sup>†</sup> was the only FDA approved transcatheter percutaneous LAAO device.
- Key differentiating features of the Amulet LAA occluder:
  - Dual-seal mechanism consisting of a lobe and a disc connected by a central waist with polyester patches sewn into both the lobe and disc to facilitate effective occlusion
  - No need for oral anticoagulant therapy (OAC) following the implant procedure



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**CLINICAL RESEARCH**  
Interventional cardiology

## Left atrial appendage occlusion with the Amplatzer™ Amulet™ device: full results of the prospective global observational study

David Hildick-Smith<sup>1\*</sup>, Ulf Landmesser<sup>2</sup>, A. John Camm<sup>3</sup>, Hans-Christoph Diener<sup>4</sup>, Vince Paul<sup>5</sup>, Boris Schmidt<sup>6</sup>, Magnus Settergren<sup>7</sup>, Emmanuel Teiger<sup>8</sup>, Jens Erik Nielsen-Kudsk<sup>9</sup>, and Claudio Tondo<sup>10</sup>, on behalf of the Amulet Observational Study Investigators

# AMULET IDE TRIAL<sup>1</sup>

## KEY INCLUSION CRITERIA

- Documented paroxysmal, persistent, or permanent non-valvular atrial fibrillation
- At high risk of stroke or systemic embolism defined as CHADS2 score of  $\geq 2$  or CHA2DS2-VASc score of  $\geq 3$
- Deemed by investigator to be suitable for short term warfarin therapy but deemed unable to take long term oral anticoagulation

## KEY EXCLUSION CRITERIA

- LAA anatomy cannot accommodate either a Watchman<sup>‡</sup> device or Amulet LAA occluder, as per manufacturer's IFU based on pre-enrollment screening with imaging studies

1. Amulet IDE Trial: Head-to-head Amulet IDE trial comparing the efficacy and safety of Amulet and Watchman (N=1878).

# AMULET IDE ENDPOINTS<sup>1</sup>

## PRIMARY ENDPOINTS (NON-INFERIORITY TESTS)

- **Mechanism of action (45 days):** Residual jet around the device  $\leq 5\text{mm}$
- **Safety (12 months):** Composite of procedure-related complications, or all cause death, or major bleeding
- **Effectiveness (18 months):** Composite of ischemic stroke or systemic embolism

## SECONDARY ENDPOINTS

- **Mechanism of action (45 days):** superiority test
- **Primary safety endpoint (12 months):** superiority test
- **Primary effectiveness endpoint (18 months):** superiority test
- **Composite of stroke/systemic embolism/cardiovascular death (18 months):** non-inferiority test
- **Major bleeding (18 months):** superiority test

1. Amulet IDE Trial: Head-to-head Amulet IDE trial comparing the efficacy and safety of Amulet and Watchman (N=1878).

# FIRST LARGE SCALE RANDOMIZED HEAD-TO-HEAD STUDY AMULET VS WATCHMAN<sup>‡1</sup>



Amulet showed  
**superior effective  
closure** and **> 60%**  
of subjects had  
**complete closure**



Amulet showed  
**non-inferior** rates of  
**effective endpoint**  
**(stroke, systemic  
embolism)**



Amulet showed  
**non-inferior** rates  
of **safety endpoint**  
**(procedure-related  
complications, all-  
cause death  
or major bleeding)**

OAC = Oral anticoagulant

CV = Cardiovascular

DRT = Device Related Thrombosis

1. Amulet IDE Trial: Results from a head-to-head IDE trial comparing the efficacy and safety of Amulet and Watchman (N=1878).

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# IDE TRIAL SHOWS STRONG PERFORMANCE<sup>1</sup>

AMULET CLAIMS		SUPPORTING DATA <sup>1</sup>
<b>Post Implant Therapies</b>	Amulet patients may be discharged on DAPT pharmacological regimen only	79% of Amulet patients discharged from hospital without the use of oral anticoagulant (OAC) medication
<b>Effective Closure</b>	Superior effective closure at $\leq 5$ mm residual jet flow vs. Watchman <sup>‡</sup>	Effective closure at $\leq 5$ mm residual jet flow - Amulet 99% of subjects - Watchman <sup>‡</sup> at 97% of subjects
<b>Complete Closure</b>	Higher complete closure at 0 mm residual jet flow vs. Watchman <sup>‡</sup>	Complete closure at 0 mm residual jet flow - Amulet 63% of subjects - Watchman <sup>‡</sup> 46% of subjects
<b>Stroke / CV Death</b>	Non-inferiority rates at 18 months for all strokes, systemic embolism and CV death vs. Watchman <sup>‡</sup>	At 18 months - All Stroke: Amulet 2.7% vs. Watchman <sup>‡</sup> 3.4% - Systemic Embolism: Amulet 0.3% vs. Watchman <sup>‡</sup> 0.2% - CV Death: Amulet 3.1% vs. Watchman <sup>‡</sup> 4.8%
<b>Device Related Thrombosis</b>	Low DRT at 18 months vs. Watchman <sup>‡</sup>	DRT at 18 months - Amulet 3.3% (n=30 patients) - Watchman <sup>‡</sup> 4.5% (n=40 patients)

DAPT= Dual antiplatelet therapy    CV = Cardiovascular    DRT = Device Related Thrombosis

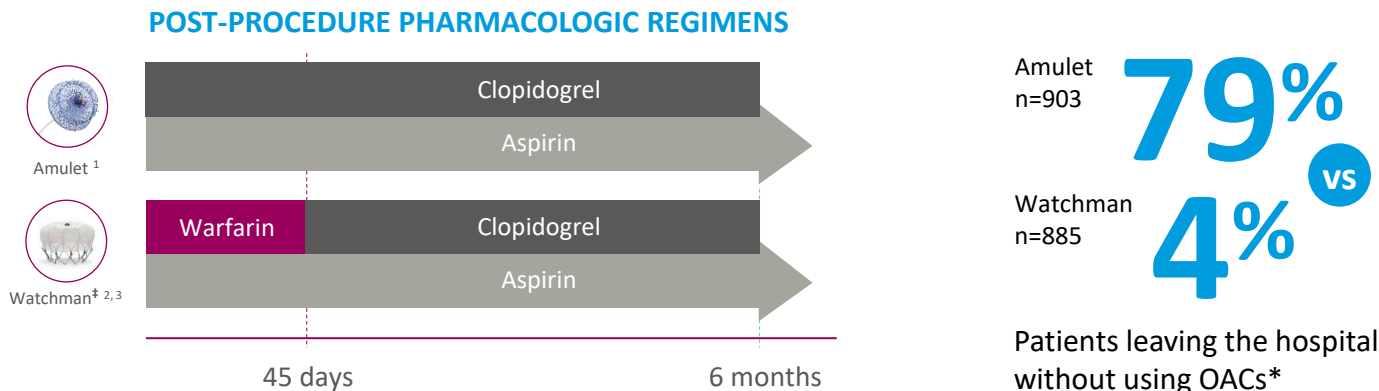
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# OACs NOT REQUIRED AT DISCHARGE

## THE FIRST AND ONLY LAA OCCLUDER



Unlike Watchman<sup>‡</sup>, Amulet patients may be discharged with DAPT only

DAPT = Dual antiplatelet therapy.

\* Amulet IDE Trial: Results from a head-to-head trial comparing the efficacy and safety of Amulet and Watchman (N=1878).

1. Amplatzer Amulet LAA Occluder IFU. 2021. 2. Watchman LAA Closure Device DFU. 2015. 3. Watchman 2.5 website

# CLOSURE SUPERIORITY DEMONSTRATED IN THE FIRST LARGE SCALE RANDOMIZED HEAD-TO-HEAD STUDY VS WATCHMAN<sup>‡1</sup>

EFFECTIVE CLOSURE WITH  
≤5 MM RESIDUAL JET  
AROUND THE DEVICE

98.9%

Amulet LAA Occluder

VS

96.8%

Watchman<sup>‡</sup>

(*P* = 0.0025)

COMPLETE CLOSURE WITH  
NO RESIDUAL JET (0 MM)  
AROUND THE DEVICE

63.0%

Amulet LAA Occluder

VS

46.1%

Watchman<sup>‡</sup>

SUPERIOR CLOSURE  
FOR RESIDUAL  
PERI-DEVICE FLOW

1. Amulet IDE Trial: Results from a head-to-head trial comparing the efficacy and safety of Amulet and Watchman (N=1878).



# DEMONSTRATED SUCCESS BY EVERY MEASURE<sup>1</sup>

## DEVICE SUCCESS\*

**98.4%**

Amulet LAA Occluder

VS

**96.4%**

Watchman<sup>†</sup>

## TECHNICAL SUCCESS<sup>†</sup>

**97.2%**

Amulet LAA Occluder

VS

**95.3%**

Watchman<sup>†</sup>

## PROCEDURAL SUCCESS<sup>§</sup>

**96.0%**

Amulet LAA Occluder

VS

**94.5%**

Watchman<sup>†</sup>

The most common reason for unsuccessful implant was unsuitable subject anatomy, which was less common in the Amulet group than in the Watchman<sup>†</sup> group (9 Amulet and 30 Watchman).

\* Device was deployed and implanted in the correct position

† Device success with site reported residual jet ≤5 mm and no device-related complications through discharge or 7 days whichever is earlier

§ Technical success with no procedure-related complications

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# PROVEN NON-INFERIOR ACROSS PRIMARY ENDPOINTS<sup>1</sup>

## DEVICE RELATED THROMBOSIS

4.5%

Watchman<sup>‡</sup>

VS

3.3%

Amulet LAA Occluder

## SYSTEMIC EMBOLISM

0.2%

Watchman<sup>‡</sup>

VS

0.3%

Amulet LAA Occluder

## ISCHEMIC STROKE

2.7%

Watchman<sup>‡</sup>

VS

2.5%

Amulet LAA Occluder

**LOW RATES** of device related thrombosis, embolism and stroke at 18 months.

1. Amulet IDE Trial: Results from a head-to-head trial comparing the efficacy and safety of Amulet and Watchman (N=1878).

# IDE DATA POSITIONS AMULET WELL AGAINST WATCHMAN<sup>‡</sup> IN HEAD-TO-HEAD STUDY<sup>1</sup>



**79%** of Amulet  
subjects discharged  
**without OAC  
medication**



Amulet showed  
**superior effective  
closure** and **> 60%**  
of subjects had  
**complete closure**



Amulet showed  
**non-inferior** rates  
of **stroke, systemic  
embolism or CV  
death** and **low DRT  
rates**

OAC = Oral anticoagulant

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DRT = Device Related Thrombosis

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Abbott  
3200 Lakeside Dr., Santa Clara, CA. 95054 USA  
[www.structuralheart.abbott](http://www.structuralheart.abbott)

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