



Abbott

IDE TRIAL SUMMARY

# AMPLATZER™ AMULET™ LEFT ATRIAL APPENDAGE OCCLUDER

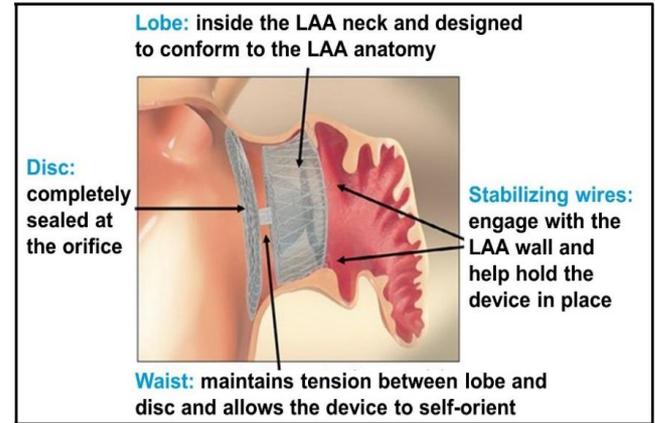


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# AMULET IDE TRIAL BACKGROUND

- 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



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

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# 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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| 5

# 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 ≤5 mm residual jet flow vs. Watchman <sup>‡</sup>                              | Effective closure at ≤5 mm residual jet flow<br>- Amulet 99% of subjects<br>- 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<br>- Amulet 63% of subjects<br>- 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<br>- All Stroke: Amulet 2.7% vs. Watchman <sup>‡</sup> 3.4%<br>- Systemic Embolism: Amulet 0.3% vs. Watchman <sup>‡</sup> 0.2%<br>- 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<br>- Amulet 3.3% (n=30 patients)<br>- Watchman <sup>‡</sup> 4.5% (n=40 patients)   |

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

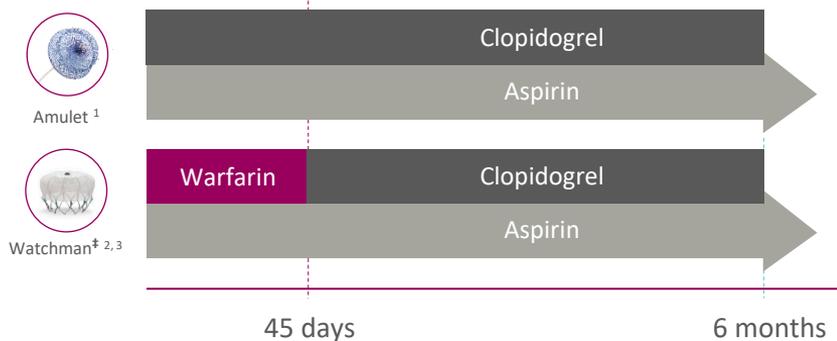
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# OACs NOT REQUIRED AT DISCHARGE

## THE FIRST AND ONLY LAA OCCLUDER

### POST-PROCEDURE PHARMACOLOGIC REGIMENS



Amulet  
n=903

79%  
VS  
4%

Watchman  
n=885

Patients leaving the hospital  
without using OACs\*

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%**

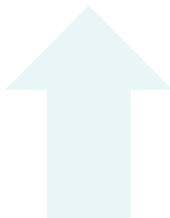
Amulet LAA Occluder

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

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

# 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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