45% of patients with atrial fibrillation (AFib) who are admitted to the hospital for a major bleed are discharged without a stroke and systemic embolism (SSE) prevention plan.¹

- Patients with AFib are at high risk for SSE from thrombus¹
- ≥90% of AFib-related thrombi form in the **Left Atrial Appendage (LAA)**²
- AFib-related strokes are more likely to involve large brain territories, lead to death or permanent disability, and recur³

**Oral anticoagulation (OAC)** is first-line in most AFib patients for SSE prevention.⁴

In patients unable/unwilling to tolerate long-term OAC, left atrial appendage occlusion (LAAO) should be considered.⁵

LAAO involves a minimally invasive procedure to place a small device that occludes the LAA opening, preventing thrombus from leaving the appendage and embolizing systemically. Over time, the endocardial tissue grows over the device, but short-term antithrombotic therapy is required until this occurs, and imaging is performed to ensure the LAA has been occluded without significant peri-device leak.⁶

**BOTTOM LINE**

- **DO**
  - Consider LAAO in non-valvular AFib (NVAF) patients with stroke risk factors when risks of long-term anticoagulation outweigh the benefits
  - Utilize and document shared decision-making process
  - Assure LAAO device has an adequate fit prior to antithrombotic therapy discontinuation

- **DO NOT**
  - Do not forget stroke prevention in patients with AFib that cannot be on chronic oral anticoagulation
  - Do not forget that most patients require anticoagulation or anti-platelet therapy for a short period of time after LAAO implantation

- **CONSIDER**
  - Consider different devices and approaches to LAAO via shared decision making with NVAF patients
  - Consider using a direct oral anticoagulant (DOAC) for patients intolerant of warfarin
  - Consider LAAO for patients unable/unwilling to tolerate any long-term oral anticoagulation

- **CAUTION**
  - LAAO devices may have different short-term post-implant antithrombotic approaches such as anticoagulation or dual anti-platelet therapy
  - The bleeding risk associated with dual anti-platelet therapy may be no different than that of warfarin in AFib patients⁴

**LAAP Patient Selection and Referral**

Patients should have:

- A suitability for short-term oral anticoagulation but inability to take long-term OAC
- A CHADS² score ≥ 2 (Congestive heart failure, Hypertension, Age >75, Diabetes, Stroke/transient ischemia attack/thromboembolism) OR a CHA²DS²-VASc score ≥ 3 (Congestive heart failure, Hypertension, Age ≥ 65, Diabetes, Stroke/transient ischemia attack/thromboembolism, Vascular disease, Sex category)¹
- A documented shared decision-making interaction using an evidence-based decision tool on OACs in patients with NVAF prior to LAAO. Shared decision-making note must be done by provider outside the implantation team

Refer patients to Structural Heart and/or Electrophysiology program for consideration of LAAO implantation

**FDA-Approved LAAO Devices**

- **Watchman FLX**
- **AMPLATZER Amulet**

**References:**

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**Faculty:** Arthur Allen, PharmD, CACP | Allison Burnett, PharmD, PhC, CACP | Scott Keatt, DO, MSc, FACP | Dee Dee Wang, MD, FACC, FASE, FSCCT, FSCAI

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