

# Hybrid AF™ Therapy: Pre- and Post-Op Quick Reference

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Hybrid AF Therapy includes subxiphoid access using a catheter, cannula, endoscope and radiofrequency (RF) generator to ablate the epicardial surface of cardiac tissue.

## Contraindications to Hybrid AF Therapy

- Patients with current thrombus of left atrial appendage
- Patients with a history of Barrett's Esophagitis
- Patients with an active infection or sepsis

## Procedure Day

### Nurses Should Verify the Following

- Patient is NPO
- Updated bloodwork and diagnostics are on file
- Day and time patient stopped taking their anticoagulation therapy along with all other medications, vitamins and supplements
- Patient has signed all pertinent consents (Epicardial, Endocardial, TEE, etc.)

### Patient Prep

- General anesthesia
- Central line usually placed after TEE (if needed)
- Arterial line
- Foley catheter

## Post-Op Orders

Typical patient flow within the hospital length of stay (LOS) is an overnight stay in a critical-care unit; stepdown or telemetry the second day, and discharge home on the third day.

### Respiratory Concerns

- Should start receiving instruction on Incentive Spirometry pre-operatively (and should begin immediately upon arrival to post-op unit)

### Wound Care

- Subxiphoid incision will have dressing — keep dry — follow nursing standard of care
- Groin care: Bruising is common and can sometimes be extensive. Monitor closely.

### DVT Prophylaxis

- No contraindication to using mechanical DVT prevention, unless the EP objects (venous sticks in the groins)

### Pain

- Typically, is greatest in the first 24 hours, then quickly abates
- PCA (Morphine or Dilaudid) may be used but is not routinely necessary
- Chest pain is typically a result of surgery (pericarditis) and most likely not a result of any type of ischemia

### Steroids

- Thought to help reduce pericarditis, post-op pain & pericardial effusion

### NSAIDs

- Toradol is most commonly used in the immediate post-op period contingent on patient status to contraindications of renal function, age and allergy
- Indocin is also very effective when patient is taking PO meds without dyspepsia or ileus
- Should be very careful to account for any history of GI bleed
- Ibuprofen can also be used especially in outpatient setting

# Hybrid AF Therapy: Pre- and Post-Op Quick Reference *continued*

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## GI Prophylaxis

- Most institutions use PPI or H2 Blocker for prevention of stress gastritis

## Fluid Balance

- Monitor patient's fluid balance during the procedural time
- Patient may need diuretics due to fluid load during the procedure

## Ambulation

- Goal: patient out of bed night of surgery and mobilized by post-op day one

## Pericardial Drain Management

- Drain output is typically serosanguineous (pinkish in tint or dark pink). The surgical team should be called when output is bright, frank blood.
- Follow existing standard-of-care protocol for removal of drain

## Antiarrhythmic and Anticoagulation Management

- It is not uncommon for patients to experience intermittent recurrence of arrhythmia(s) during the blanking period. This expectation should be communicated with the patient prior to procedure.
- Pre-operative antiarrhythmic drugs should be resumed post-procedure (during the blanking period as determined by the physician)
- Bridging with heparin is suggested if the patient will be maintained on coumadin
- Restarting of DOACs should be coordinated by HCPs: typically, 6 hours post-procedure
- Anticoagulation should be initiated regardless of patient's CHA<sub>2</sub>DS<sub>2</sub>-VASc Score

## Discharge Instructions

- Post-op restrictions as per standard nursing protocol
- Driving need not be restricted (except when prescribed narcotics)
- Patient should immediately contact their HCP in the event of any fevers, nausea, diarrhea, abdominal or chest fullness, difficulty swallowing and/or increase in pain
- As mentioned above, after an ablation many patients experience heart rate and rhythm changes which are not atypical and can occur for several months

This resource aims to be a detailed and comprehensive guide for initiating a Hybrid AF Therapy Convergent program. Included are clinical insight and best practice across the perioperative spectrum compiled from sites with extensive experience in Hybrid AF Therapy Convergent. This guide should not be construed as medical advice or medical opinion related to any specific facts or circumstances. There are potential risks including (but not limited to) infection, cardiac tamponade, pulmonary vein stenosis, pericardial effusion, esophageal fistula, myocardial infarction, new arrhythmias, thromboembolic complication. It is the responsibility of the individual clinician — and facility — to select the protocols, procedures, equipment and medications most appropriate for their patients' specific considerations.

### EPI-Sense® Guided Coagulation System

**U.S. Indications:** The EPI-Sense Guided Coagulation System is intended for the treatment of symptomatic long-standing persistent atrial fibrillation (continuous atrial fibrillation greater than 12 months duration) when augmented in a hybrid procedure with an endocardial catheter listed in the instructions for use, in patients (1) who are refractory or intolerant to at least one Class I and/or III antiarrhythmic drug (AAD); and (2) in whom the expected benefit from rhythm control outweighs the potential known risks associated with a hybrid procedure such as delayed post-procedure inflammatory pericardial effusions. **Contraindications** include patients with Barrett's Esophagitis, left atrial thrombus, a systemic infection, active endocarditis, or a localized infection at the surgical site at the time of surgery. **Adverse Events:** Reported adverse events associated with epicardial ablation procedure may include, but are not limited to, the following: pericardial effusion/cardiac tamponade, pericarditis, excessive bleeding, phrenic nerve injury, stroke/TIA/neurologic complication. Please review the Instructions for Use for a complete listing of contraindications, warnings, precautions and potential adverse events located at the following AtriCure web address: <https://www.AtriCure.com/EPI-Sense-Coagulation-Device>. **Warnings:** Physicians should consider post-operative anti-inflammatory medication to decrease the potential for post-operative pericarditis, and/or delayed post-procedure inflammatory pericardial effusions. Physicians should consider post-procedural imaging (i.e. 1-3 weeks post-procedure) for detection of post-procedure inflammatory pericardial effusions. **Precautions:** Precautionary measures should be taken prior to considering treatment of patients: (1) Deemed to be high risk and who may not tolerate a potential delayed post-procedure inflammatory pericardial effusion. (2) Who may not be compliant with needed follow-ups to identify potential safety risks. To ensure patients undergoing treatment with the EPI-Sense device are well informed, the benefits, potential risks and procedural outcomes associated with the EPI-Sense Hybrid Convergent procedure should be discussed with the patient. Physicians should document accordingly in the medical record. Qualified operators are physicians authorized by their institution to perform surgical sub-xyphoid pericardial access. The coagulation devices should be used by physicians trained in the techniques of minimally invasive endoscopic surgical procedures and in the specific approach to be used. Operators should undergo training on the use of EPI-Sense device before performing the procedure. Safety and effectiveness of concomitant left atrial appendage closure was not evaluated in the CONVERGE study. Follow-up should be conducted at approximately 30 days post-procedure to monitor for signs of delayed onset pericarditis or pericardial effusion. **Rx Only.**