

## Dear EP Managers & Staff,

Thank you for joining us. Our 5 minute letter builds on last months topics to improve your orientation process and increase your understanding of Atrial Flutter ablation problems & solutions.

We encourage you to [forward this newsletter](#) to your fellow staff so that we may benefit them. Next month we will explore numerous ways to improve the EP Lab budget. I encourage you to add to this discussion by sharing your favorite [budgetary strategies](#).

Thank you and have a great Spring. We hope to see you at HRS in May.

**Respectfully,  
Steve Miller, RN**

## **Adjuncts to Orientation** **It Takes a Whole Lab**

In the [Jan/Feb letter](#) we described how to hire an "ally" for your new staff position- "people with passion in their work and a drive to improve themselves and their department." Now that you have a new employee, how do you help him or her achieve their full potential? And how do you further assist your current staff in reaching theirs? Let's

## **Newsletter Contents**

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- Atrial Flutter Ablation Redo
- Verify Your Catheter Tip Payment
- Sell used AcuNav, Ultra ICE, & Soundstar Catheters

**Next Issue:** EP Finances & SVT's

## **Upcoming EP Classes**

4/12 San Diego, CA; 4/26 Harrisburg, PA; 5/1 Webcast; 5/3 Charlotte, NC; 5/14-17 San Francisco, CA; 5/28-30 Sydney, Australia. [Full Calendar](#).

## **A. Flutter Ablation Redo** **Why did the first one fail?**

In the [last newsletter](#) we described Atrial Flutter and its Ablation. Only 85% to 90% of Atrial Flutter ablations that achieve initial bidirectional isthmus block are successful. Why are they not 100% successful? How do you diagnose the rhythms return? How is a repeat Ablation performed? And what are the potential complications?

A review of the [anatomy](#) (page 7, Figure 13) shows a major reason for unsuccessful ablations. The 30 to 35 mm-long isthmus in the right atrium -- the target for Atrial Flutter ablation -- lies between the IVC and the Tricuspid Annulus and has a very irregular surface that is composed of ridges and grooves created by the trabeculated myocardium. When the ablation catheter makes contact with the top of the ridges, it may be several millimeters over the base of the



explore having one mentor and multiple preceptors, encouraging knowledge-sharing between staff, and having ready access to educational materials.

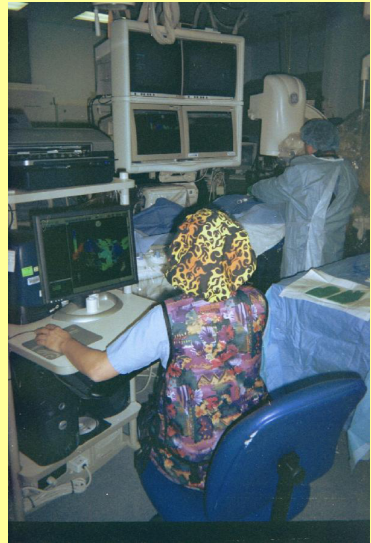
Having one preceptor limits your new employee to a single perspective and knowledge base. We propose an alternative -- one mentor and multiple preceptors. The mentor's main goals are to coordinate the orientation process and to be a model for, and encourage the attitude of, an employee who is motivated to improve themselves and department. The entire staff collectively provides the actual teaching and evaluation of competency. This way the camaraderie and respect that normally develop between a new employee and a preceptor will develop with the other members of the department as well.

Talk with your staff before the new employee begins, and discuss each of their roles. Evaluate your orientation program, and match each topic with the staff person who is most competent and takes pride in that area. Occasionally, staff may refuse the challenge due to laziness or a claim of not being a good teacher. Don't let this fly; motivate and reward involvement based on individual personalities. Also, expand this orientation concept to one of ongoing staff development. Identify learning needs in each staff and find the person who can best address those needs. Your staff can probably do this with a self evaluation, and identify the best instructor themselves. Let them know these teaching and learning activities and their records of growth are part of your evaluation process.

Experienced personnel are often

grooves. This may prevent the ablation energy from forming a lesion deep enough to create a permanent block of the impulse. If the first procedure obtained its goal of a bidirectional block, it was most likely the result of edema that developed just beyond the lesion border, which created a temporary block. When the edema resolves, the tissue regains its conductive abilities, and the Atrial Flutter returns. Return of the Atrial Flutter is the obvious indication of a lack of permanent success.

During initial and repeat procedures, several practitioners utilize 8 to 10 mm catheters with ablation energies of greater than 60 watts to attain deeper lesions. This comes with a greater risk of "Steam Pops" which are the result of the vaporization of blood or myocardium, and coagulum formation, which may result in emboli. These "Pops" may cause



a perforation resulting in pericardial tamponade, and may occur in the right atrium or with ablations in other locations. However, the larger tips also produce better results, with a 95% to 97% success rate. The internally and externally irrigated catheters have also been demonstrated to create deeper lesions than the traditional 4 mm and 5 mm catheter tips. These, however, have a lower incidence of "steam pops" and coagulum formation.

reluctant to share their knowledge under the assumption that they become less valuable and lose their power as others become more competent. Though difficult to purge, this mindset is poison to a department. Publicly acknowledge and praise those who provide teaching to other staff. Be an example yourself by sharing your knowledge and information regularly. Having your staff become accustomed to sharing their knowledge and skill helps to create a cohesive "team of allies" that is mutually evolving.

Your staff also needs to take responsibility for their own learning. As an adjunct to the orientation of new staff and assisting with the continuing education of current staff, EPeward has just created an online "[EP Training and Review](#)" program. It systematically covers most of the topics necessary for functioning in, and understanding, Electrophysiology. Employees can even create their own "Personal Education Page" to log and take notes on the different classes they have taken. The sections of the program include: Intro to the EP Lab, Anatomy & Physiology, Adjunctive Studies, Patient Care, Electrophysiology Studies, Device Therapy, Therapeutic Ablations, and Specific Equipment. There are also more than 70 links to a larger variety of educational topics ranging from beginning to advanced, located on the primary [EP Education](#) page. Please [forward this newsletter](#) to your staff for them to make use of these free services.

Additional resources available to your department include- texts such as: "Electrophysiologic Testing" by Richard N. Fogoros, "Practical Electrophysiology" by Todd J. Cohen; periodicals such as the "[Journal of Cardiovascular Electrophysiology](#)" and [EP Lab Digest](#); attending [conferences](#); and the websites of the [Heart Rhythm Society](#) and the manufacturers are great sources of EP information as well. The items that require purchasing are perfect expenditures for your platinum recovery funds.

The repeat procedure is accomplished by mapping across the isthmus ablation line, and observing for conduction of the impulse through the isthmus. If the patient is not in Atrial Flutter, bidirectional block may be assessed by 1) pacing in the area of the CS Os and checking for block lateral to the isthmus, and 2) pacing in the lower right atrium and checking for block medial to the isthmus. See "[Dr. Larry Epstein at the Whiteboard](#)" (4) Parts 2, 5 & 6, for a brief explanation of the pre and post procedure electrograms.

With this understanding, have your Physician or other experienced staff show you the "live" intracardiac electrogram sequences they are evaluating during your next Atrial Flutter Ablation. They will be happy to aid your understanding.

## **Platinum Recovery Survey**

### **#1- Verification of Payment**

The surprising results from the survey



was not that people wanted the highest payment, but that they wanted to verify their payment was accurate and trust the company doing their refining. This

Newsletter is just one example of our commitment and dedication to you and your lab. The other is our consistently higher rate of payment for your catheter tips. If you have not used EPeward for your platinum recovery, we provide a fully documented program that provides you with: 1) written pricing; 2) complete identification and documentaion of your catheter tips; 3) comparison data with other other refining options.

[Contact us](#) for more information on our Platinum Recovery services.

What did these Labs have to say?

Enjoy your evolving department!  
Progressing staff are happier, more satisfied, and provide better care for their patients. For a quick review on orientation visit "[Key Components of Perioperative Orientation.](#)"

## **EP Catheters For Sale**

New, Unopened, Inspected, & Warranted

EPT XP 1000 Ablation Generator \$2,650  
(Used, excellent condition).

Bio Web Navistar- 4 mm & 8 mm- Most Curves- \$1,200-\$1,500 ea.

EPT Blazer II- 7 Fr 4 mm Std & Sm Curve- \$382.50 ea.

EPT Chilli II- Lg Curve \$448.50 ea.

120 others available, [see them here.](#)

**"I did receive the check and the box. I really liked the documentation. Thank you." EP Lab Oklahoma.**

**"We received the check and everything was great. We are very pleased with your company ..." EP Lab Colorado.**



## **Catheters**

Unused EP catheters and equipment can be worth thousands of dollars to your Lab every year. Our EP Catheter Relocation program purchases your unopened catheters and sells you new, fully warranted EP catheters at 50% to 70% below their list price. Come

see what is available for your department at [EP Catheters for Sale.](#)

## **Sell Your New & Unused EP**

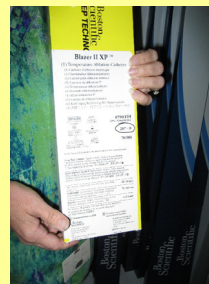
### **Items EPreward Will Buy from Your Department**

- Once-used AcuNav, Ultra ICE, & SoundStar Catheters at \$50 each.
- Unopened and yet-to-expire EP Catheters at up to 35% of their list price.
- Unopened and expired EP Catheters at \$15 to \$70 each.
- Used EP Equipment such as Ablators, Stimulators, EP Systems, etc.

### **Items That Other Labs are Looking to Buy**

EPT 1000 Ablation Generator  
Pruka Recording System

Patient Interface Unit from Older ESI System  
Cardema Catheters and Equipment



**[Contact us](#) if your department has equipment it is not going to use, or for any comments or questions. Take care.**