

### St. Jude Medical Announces IRASE AF Clinical Trial to Evaluate Cardiac Ablation Catheter System for Treatment of AF

St. Jude Medical, Inc. announced it has received an Investigational Device Exemption (IDE) from the U.S. Food and Drug Administration to begin enrollment in the IRASE AF (IRrigated Ablation System Evaluation for AF) trial.

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### Cambridge Heart Completes Development of New MTWA Module

Cambridge Heart, Inc. announced that the company has completed the development phase of its Microvolt T-wave Alternans (MTWA) OEM Module, and has submitted a 510(k) application for regulatory approval with the U.S. Food and Drug Administration.

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### Sorin Group Announces Market Release and First Implant of Next-Generation Cardiac Resynchronization Therapy Defibrillator

Sorin Group announced U.S. FDA approval and first implant of its next-generation of cardiac resynchronization therapy defibrillator (CRT-D), Paradym™ CRT Model 8750.

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# EP LAB DIGEST

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A PRODUCT, NEWS AND CLINICAL UPDATE FOR THE ELECTROPHYSIOLOGY PROFESSIONAL

MARCH 2010

## Electrophysiology in the “Real” World

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Fifteen years of donning a lead apron has taught me many lessons. A very wise friend once told me success in any endeavor really involves *mastering the obvious*. This is clearly the case in practicing medicine and more specifically, achieving favorable results in the electrophysiology lab.

Our lab is humbly equipped. There is a late model mono-plane fluoroscopy unit, a singular three-dimensional mapping system, an intracardiac ultrasound (ICE) device and an irrigated ablation system. A robot, MRI and multiple 3D mapping systems are notably absent. Enough equipment is available to achieve success, but not so much to allow dust to settle.

So what could this non-academic Thoreau-like setting offer to the cohort of *EP Lab Digest* readers? An attempt, not certainly comprehensive, and not likely universally agreed upon, to outline some observations, theorems and lessons learned over the years. Presented herein are notions — some specific and others more general — that

hopefully will help achieve success in the EP laboratory.

**Theorem number one: Strive for flexibility of the mind to learn new things.**

An electrophysiologist must be a lifelong learner. Consider for example, upon finishing training in the 1990s, there was no formal teaching on the transeptal puncture, and CRT devices were yet to be imagined. In fact, when first asked of the possibility that a left ventricular lead could benefit congestive heart failure, I was dismissive and unimaginative.

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See our Spotlight Interview on Florida Hospital Zephyrhills.

## Top Ten List: Things Electrophysiologists and Cardiologists Can Do to Increase Profitability

Jim Collins, Certified Cardiology Coder (CCC), CPC, CHCC  
President, CardiologyCoder.Com, Inc.

There is a lot of low-hanging fruit in most cardiology and electrophysiology practices. Following are the top ten areas in which you can increase the profitability of your practice.

### #10: Be Aware of Your Post-Op Billing Opportunities

Reimbursement for pacemaker and defibrillator surgeries includes routine surgical recovery services provided in the 90-day post-operative period. This is most commonly limited to discharge following the procedure and an incision site check shortly after discharge.

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However, Medicare policy specifies that “Treatment for the underlying condition or an added course of treatment which is not part of normal recovery from surgery” and “Visits unrelated to the diagnosis for which the surgical procedure is performed” are separately reimbursable. Medicare requires that we attach the 24 modifier to these evaluation and management services to confirm that they are not routine post-operative care.

Diagnostic tests, like pacemaker or defibrillator checks, performed during the 90-day post-operative period should also be separately reported. Many physicians wait for 90 days before bringing patients into the office to evaluate and optimize device settings; this wait period is not necessary. An alternative approach is to perform this initial post operative device check at the same time as the incision site check. While no reimbursement will be provided for the incision site check, the practice will be compensated for the device check.

**#9: Use Mid-Level Providers Effectively**

Medicare’s recent elimination of reimbursement for consultative services removes the most problematic restriction associated with mid-level billing. Now, mid-level providers can render and dictate all consultative, admission, follow-up, and discharge notes for their supervising physician in the hospital setting. As long as the physician personally evaluates the patient face-to-face on the same day and documents his/her service, the shared visit can be reported by the physician and paid at 100% of the physician fee schedule.

Mid-level providers can provide follow-up visits in the office setting and the supervising physician can personally bill for these services as long as Medicare’s “incident-to” rules are met. Since Medicare has increased reimbursement for follow-up office visits, we have an incentive to see patients in follow up more frequently. Having mid-level providers see patients back at six-, eight-, or ten-month intervals generates more revenue than personally seeing the patient at annual intervals.

Mid-level providers can also manage your device clinics. This will generate more revenue than if a device company representative runs the clinic, because Medicare has specified that the professional component modifier (26) must be appended to any device clinic services provided by a device company representative;

this reduces reimbursement by \$20-\$31 per device check.

**#8: Understand the Basics of Electrophysiology Coding**

The American Medical Association’s Current Procedural Terminology (CPT) is an expansive set of five-digit codes that must be used to report professional services to all payers. Electrophysiology (EP) studies are typically reported with CPT code 93620, which is defined as “Comprehensive electrophysiologic evaluation including insertion and repositioning of multiple electrode catheters with induction or attempted induction of arrhythmia; with right atrial pacing and recording, right ventricular pacing and recording, His bundle recording.” However, code 93620 should only be assigned if the EP report definitively establishes that each of the six sub-components of a comprehensive EP study was performed: atrial pacing, atrial recording, ventricular pacing, ventricular recording, His bundle recording, and attempted arrhythmia induction.

According to the National Correct Coding Initiative Policy Manual for Medicare Services, “Physicians must avoid upcoding. A HCPCS/CPT code may be reported only if all services described by that code have been performed.” CPT contains a second “package” code for EP studies, 93619, which includes each of the components described by code 93620 with the exception of attempted arrhythmia induction. Code 93619 is appropriate for studies performed on patients who have persistent arrhythmias that do not require induction. CPT also contains six “component” codes, a sub-set of which should be assigned when the EP report does not support either of the two package codes: 93610 (atrial pacing), 93602 (atrial recording), 93612 (ventricular pacing), 93603 (ventricular recording), 93600 (His bundle recording), and 93618 (attempted arrhythmia induction). If atrial pacing and arrhythmia induction is not performed because the patient is in atrial fibrillation, it would be necessary to report the sub-set of component codes that accurately reflects the work performed: 93602 (atrial recording), 93612 (ventricular pacing), 93603 (ventricular recording), and 93600 (His bundle recording). Reporting code 93620 would be inappropriate since one third of its definition was not performed.

EP studies that also include assessment of the left atrium and/or ventricle will frequently support code 93621 (left atrial pacing and recording) or 93622 (left ventricular pacing and recording). However, since the code definitions specify that pacing and recording was performed, the reduced

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services modifier (52) should be attached if the report does not definitively establish that both pacing and recording were performed.

Additional CPT codes are available to report the work associated with standard catheter mapping (93609), three-dimensional mapping (93613), induction attempts after drug infusion (93623), and intracardiac echo (93662). Failure to properly report these services can shave hundreds of dollars from your reimbursement. Although ablation techniques have greatly evolved in recent years, the CPT code structure for these procedures has remained stagnant. Just three codes are available to report ablative procedures: 93650 (AV node ablation), 93651 (SVT ablation), and 93652 (VT ablation). Therefore, the reimbursement you receive for an atrial fibrillation ablation is the same as you receive for a standard atrial flutter ablation. Fortunately, physicians are credited (by the AMA/Specialty Society Relative Value Scale Update Committee [RUC]) with seven hours and forty-five minutes of pre-, intra-, and post-op time for every SVT ablation. Because of this, there is an incentive to minimize the number of lengthy atrial fibrillation cases you perform.

Make sure to not report code 93527 (Combined right heart catheterization and transseptal left heart catheterization through intact septum [with or without retrograde left heart catheterization]) for the transseptal puncture performed to facilitate some left-sided procedures. The introductory text to the EP section of the CPT book instructs that “Intracardiac electrophysiologic studies (EPS) are an invasive diagnostic medical procedure which include the insertion and repositioning of electrode catheters...catheter insertion and temporary pacemaker codes are not additionally reported.” In addition to this clear guidance from CPT, the patient may not require a diagnostic heart cath, the physician may not be credentialed to perform diagnostic heart caths, and reports rarely (if ever) contain the data required to support the performance of

a diagnostic heart cath: right and left ventricular systolic and end-diastolic pressures, right atrial pressure, pulmonary artery pressure, pulmonary artery wedge-pressure, transvalvular mean, peak pressure gradients, valve area determinations, and a determination of cardiac output.

**#7: Understand the Basics of Pacemaker and Defibrillator Coding**

Initial implants of pacemakers are typically reported with just two codes: 71090 is used to report fluoroscopic imaging, and the appropriate device system implant code (33206, 33207, or 33208) is used to report the surgical portion of the procedure. Single-chamber atrial system implants should be reported with code 33206, single-chamber ventricular system implants should be reported with 33207, and dual-chamber system implants should be reported with 33208.

When coded correctly, you will receive more money for a pacemaker generator change out than you do for the implantation of a single-chamber system and only 4% less than you would receive for implanting a dual-chamber system. While one oddball code is available to report the skin-to-skin surgical work associated with upgrading from a single-chamber pacemaker to a dual-chamber pacemaker (33214), all other change-out procedures must be reported with a collection of CPT codes that accurately describes the hardware components that were explanted and implanted.

Pacemaker generator extraction is separately reported with code 33233, lead extraction from a single-chamber device is reported with 33234, and lead extraction from a dual-chamber device is reported with code 33235. Lead extraction is not differentiated by the approach used (manual traction vs. laser), by the number of leads extracted, or by the amount of time the leads were in service.

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For the implantation portion of change-out procedures, we must only assign the CPT code(s) that reflect the hardware component(s) personally implanted. If only a generator is implanted, report 33212 (single chamber) or 33213 (dual chamber). If only leads are implanted, report 33216 (one lead) or 33217 (two leads). If a generator and at least one right-sided lead are implanted, it is necessary to report a system implant code (33206, 33207, or 33208) rather than the component codes, and the system implant code we use must accurately reflect the hardware that was personally implanted.

For example, if a patient has a dual-chamber pacemaker that requires generator change out and a new right atrial lead, it is necessary to report the codes that reflect which hardware was extracted (generator – 33233 and right atrial electrode – 33235) and to assign the system implant code that accurately describes the components personally implanted (single chamber atrial system – 33206). Even though the patient will be discharged with a dual-chamber system, the fact that a chronic right ventricular lead was used prevents us from reporting the implantation of a dual-chamber system (33208). Make sure to also report fluoroscopic guidance (71090) for this case and any other change-out procedures in which you use fluoroscopy (including generator change outs).

Coding for defibrillator procedures is slightly less intricate than coding for pacemaker procedures. Only one system implant code (33249) is available; it should be reported for single- and dual-chamber defibrillator system implants. Just make sure to attach the Q0 (Q-Zero) modifier to all primary prevention implants along with a diagnosis code that is in line with the appropriate primary prevention

indication(s), such as: 428.22 (Chronic systolic heart failure), 412 (Old myocardial infarction), or 425.4 (Other primary cardiomyopathies). Fluoroscopy (71090) and defibrillation threshold testing (93641) should be reported in addition to the implant code when performed.

Defibrillator change out coding is also more streamlined than it is for pacemaker change outs. Whenever you remove a defibrillator generator, make sure to report code 33241; when you remove any electrodes, report 33244. If you implant just a generator, report 33240, and if you only implant electrodes, report 33216 (one electrode) or 33217 (two electrodes). If you implant a generator and at least one lead on the right side of the heart, it is appropriate to report the only available system implant code (33249). It is also appropriate to report fluoroscopy (71090) and defibrillation threshold testing (93641) when performed at the time of a change out.

Some coding conventions apply equally to pacemaker and defibrillator services. Lead repositioning (33215) is separately reported whenever this service is performed outside of the initial implant operative session. Left ventricular lead implant should be reported with code 33225 when an LV lead is implanted at the same time as a new generator, or with code 33224 when an LV lead is added to a previously implanted generator. LV lead repositioning should be reported with code 33226 when this service is performed outside of the initial implant operative session.

Pocket revision (33222 vs. 33223) is generally only billable when a chronic generator is repositioned or when upgrading from a pacemaker to a defibrillator. It is necessary to attach the separate procedure modifier (59) to code 33223 when reporting pocket revision during a procedure involving upgrading from a pacemaker to a defibrillator. This modifier establishes that a

true pocket revision was performed rather than simply opening the pocket to explant the chronic pacemaker generator.

**#6: Audit Yourself Before Medicare Does**

The government is investing one and a half billion dollars this year to audit and prosecute healthcare fraud. They have also implemented a nationwide Recovery Audit Contractor program, which incentivizes private contractors to identify inappropriate billing. Fraud and abuse regulations provide for penalties in excess of \$10,000 per incident and the government does not need to prove fraudulent intent; they just need to show that the provider acted in deliberate ignorance or reckless disregard of the applicable rules. Therefore, it is beneficial to create a paper trail that illustrates your efforts to comply with coding and documentation guidelines.

A representative sample of ten procedural services and ten visits for each doctor is typically sufficient. The sample should include a mix of EP studies, ablative procedures, device implants, generator change outs, consults, admissions, and follow-up visits. In addition to creating proof of your efforts to comply with the applicable rules, annual billing audits frequently identify underbilling and uncaptured charges. It is not uncommon to identify \$40,000-\$50,000 in lost revenue (per physician/per year) at the conclusion of the initial audit.

**#5: Stay Familiar with Coverage Policies**

Uncertainty regarding which conditions justify each of the procedures you perform has a negative impact on profitability. This will cause rendered services to be denied for a lack of medical necessity, and it will prevent you from performing other services that would be compensated. The most commonly overlooked indication for pacemaker implantation is chronotropic incompetence; a class I indication. I'm also surprised by how many referring physicians and implanters still believe that they must wait through nine months of medical therapy after a patient is diagnosed with non-ischemic dilated cardiomyopathy before offering a defibrillator; as long as the patient is enrolled in the ACC data registry (a requirement for all primary prevention implants for Medicare patients), we only need to wait through a three-month medical therapy period.

As coverage policies are a moving target, it would be beneficial to periodically visit Medicare's web site where these coverage policies are maintained: [www.cms.hhs.gov/mcd/search.asp?clickon=search](http://www.cms.hhs.gov/mcd/search.asp?clickon=search)

**#4: Embrace Remote Monitoring**

Remote monitoring of pacemakers and defibrillators is administratively convenient, it facilitates great patient care, and it is financially lucrative. The optimal way to report remote monitoring is to designate four billing dates on your calendar that apply practice wide. The date of service for each 90-day monitoring period is the last day of the period. Within each of the 90-day periods you must perform at least one remote interrogation. For newly enrolled patients, make sure that the patient was enrolled in your remote monitoring program for at least 30 days prior to including them in the practice wide, 90-day billing batch. If newly enrolled patients are monitored for more than 30 days but less than 90 days, indicate the number of days that the patient was enrolled in remote monitoring in the comment section of your claim.

Keep in mind that remote monitoring programs can typically run reports detailing every patient that is being monitored and when the most recent interrogation was performed. Integrating these reports into your charge capture efforts will eliminate the need to keep track of remote monitoring interrogations in your practice management/billing system.

Also keep in mind that the timing and frequency at which you see patients in the office for threshold and sensitivity evaluation does not impact your ability to bill for four 90-day monitoring periods for each patient, every year. While national frequency limitations have not yet been published for the new programming evaluation codes, most electrophysiologists that I've interviewed agree that it is medically necessary to conduct threshold testing at six-month intervals for patients who are being remotely monitored.

**#3: Thrive on Heart Failure**

Heart failure is the number one cause of admission for the Medicare population. As such, Medicare is incentivizing the effective management of this epidemic. Medicare currently compensates about \$50/patient/month for remotely monitoring physiologic status. Approximately \$26 of this \$50 estimate is allocated to the professional portion of the service (CPT code 93297), while the remaining amount is from the technical portion of the service (CPT code 93299). The technical portion is still "contractor priced," so physicians will see variances in the actual reimbursement amounts for this based on payer policy.

In addition to the compensation earned for monitoring the patient's physiologic status, you will see an increase in office visits for patients at the earliest indicator of heart failure exacerbation. Many

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electrophysiologists opt to not manage the patient's heart failure status. For these patients you could allow the referring physician to enroll the patient in his/her heart failure clinic. This may solidify referral relationships, and at the same time, it allows the patient and Medicare to enjoy the full functionality of the implanted device.

## #2: Hire Competent Coders and Invest in Their Continuing Education

The coding rules that apply to electrophysiology and cardiology are more complex than those of any other specialty. Allowing an unqualified person to code your procedures can easily result in a revenue loss of 30-40%, and it can expose you to tremendous liability since your name on every claim attests to the accuracy of the reported codes. With the practicalities of maintaining a competent coding staff in mind, CardiologyCoder.Com offers a monthly proficiency test that confirms coder comprehension of the guidelines presented in each of its monthly newsletters.

The Certified Cardiology Coder (CCC) designation offered by the American Academy of Professional Coders (AAPC) is the gold standard hallmark of competent cardiology and electrophysiology coders. Before earning the CCC designation, applicants are thoroughly tested with real-life case studies on each of the coding conventions that apply to cardiology and electrophysiology. After earning the credential, coders must maintain their skill set through prescribed continuing education requirements. Hiring a Certified Cardiology Coder or sponsoring your coders to earn the designation provides assurance that your coding is being done by a competent professional. Information about test preparation and the certification can be found at [www.AAPC.com](http://www.AAPC.com).

## #1: Don't Be Shy With Levels Four and Five

The "bell curve" analysis payers use to educate physicians about level of service selection is a brilliant piece of propaganda. These graphical illustrations show how your level of service selection compares to other physicians, and they are typically only sent when you report more level four or five visits than government generated benchmarks. These graphs have successfully intimidated physicians into billing fewer level four and five visits than they are providing. Level four follow-up visits (CPT code 99214) pay 50% more than level three follow-up visits (CPT code 99213), and level five follow-up visits (CPT code 99215) pay twice the amount that level three follow-up visits pay. Because of this, shying away from level four and five

services can immediately reduce your annual compensation by \$30,000-\$40,000.

The data you are compared to in these bell curves is flawed, because it includes billing data from all providers designated as cardiologists without recognizing the existence of sub-specialties, they include data from registered nurses and mid-level providers who are billing under their supervising physician, they don't recognize geographic variances, and they illustrate the

end result of a fifteen-year intimidation effort to scare physicians into underbilling services. The documentation guidelines are terribly flawed and not linked to logic or patient care. However, they make it very easy for electrophysiologists and cardiologists to support level four or five visits for the majority of encounters.

Since increased reporting of level four and five visits is known to trigger payer audits, make sure your documentation is in

line with the documentation guidelines prior to reporting these higher level services. In the hands of a competent educator, documentation guideline orientation requires a physician investment of about one hour. For an effective and low-cost physician training option, make sure to visit our website.

For more information, please visit:

[www.cardiologycoder.com/](http://www.cardiologycoder.com/)



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