

## Intravenous Heparin: High Dose or Low Dose?

*Stephen Hannan, MD*

In spite of the advent of low molecular weight heparins (LMWH), intravenous unfractionated heparin (UFH), still has a significant role in our practices. It's immediate onset, short half-life, and reversibility make it attractive in many situations.

There will be a change in the nomenclature and dosing for the IV heparin protocols. **The High Dose protocol will now be known as the Standard Dose.** The dosing will remain the same. The Low Dose protocol title will remain the same. The dosing will be increased slightly, in keeping with the latest American College of Chest Physician Guidelines.<sup>1</sup>

The Standard Dose IV Heparin Protocol targets the aPPT at 61-100 seconds. The theme has been to aim for the high side of the traditional therapeutic aPPT (1.5-2x's control). It can be used to treat: DVT, pulmonary embolism (PE), maintenance of coronary patency after tissue plasminogen activator use in acute MI. There is also a role for this protocol in patients with new onset atrial fibrillation, and in patients with a new onset left ventricular mural thrombus and in patients with acute limb ischemia.

Note 1: Low molecular weight heparins are at least as effective in treating acute DVT and pulmonary embolism. LMWH's are recommended over IV UFH in acute submassive PE.<sup>2</sup> This is based on a predictable therapeutic effect within 3-5 hours, ease of administration and possible cost savings if outpatient therapy is possible.

Note 2: If you are treating a DVT or PE, and your patient has some extra risks of bleeding: either keep them on the standard dose protocol or place an IVC filter. Dropping down to the Low Dose Protocol may have some efficacy, but does not have the clinical trials to back it up.

The Low Dose protocol has its niche in treating non-ST-elevation acute coronary syndromes. It is used in conjunction with antiplatelet therapies. Targeting the aPTT in a slightly lower range, 50-75 seconds, gave favorable results. Going to aPTT's >80 did not convey more benefit. In addition, the lower target had improved risks of hemorrhagic complications.<sup>3</sup>

Finally, a comment on patients with acute ischemic stroke: IV heparin and LMWH, are not currently recommended. This holds true even for acute cardioembolic stroke such as those with atrial fibrillation. There is ongoing debate about this, as well as using immediate anticoagulation for progressing stroke (stroke in evolution), or atherosclerotic stroke. The randomized clinical trial data is limited. At the current time, the American Heart Association, the American Academy of Neurology and the American College of Chest Physicians have **not** supported the use of IV heparin for treatment of acute ischemic stroke.

1 Harrington RA et al. Antithrombotic Therapy for Coronary Artery Disease. The Seventh ACCP Conference on Antithrombotic and Thrombolytic Therapy. Chest 2004; 126(3): 513S-548-S.

2 Buller HR et al. Antithrombotic Therapy for Venous Thromboembolic Disease. The Seventh ACCP Conference on Antithrombotic and Thrombolytic Therapy. Chest 2004; 126(3): 401S-428S.

3 Harrington RA et al. Antithrombotic Therapy for Coronary Artery Disease. The Seventh ACCP Conference on Antithrombotic and Thrombolytic Therapy. Chest 2004; 126(3): 513S-548-S.

In summary, when using IV Heparin, unless you are treating a non-ST-elevation acute coronary syndrome, you should use the Standard Dose Weight-Based Heparin Drip Protocol.

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## The Heart & Vascular Institute welcomes New Medical Director

**Peter Sidell, MD** has accepted the position of Medical Director of the Heart and Vascular Institute for Lee Memorial Health System as Medical Director. Dr. Sidell's primary role will be to provide medical leadership for the continued development of the cardiovascular service line. His duties will include but are not limited to:

- Recommend and assist in the development of annual goals and ongoing mechanisms for quality monitoring, process improvement and outcomes management
- Facilitate a continual pursuit of excellence in all aspects of cardiac and vascular services.
- Identify needs and assist in implementing proactive quality and safety initiatives in conjunction with the different cardiac, thoracic and vascular section chairs.
- Engage the cardiac, thoracic and vascular specialists in the development of new technologies and programs.
- Provide leadership in the development and implementation of the Vascular Interventional Program.

## Moving, Growing, And Changing Names

On March 21st, the 8-bed Transitional Unit at HPMC currently located on the first floor near the Emergency Department will move into its new, expanded space next to Express Care. The unit will have a new name, the **Cardiac Decision Unit (CDU)**, house 16 beds, and be open year 'round. Management of the unit will continue to be under the direction of Judy Mitchell, RN, BSN, Director, and Randi-Jo Kowalski, RN, BSN, Supervisor. **The main phone number to the new CDU will be 985-8860.**

The CDU will continue to accept all cardiac patients from the Emergency Department, direct admissions, and transfers focusing on cardiac diagnoses, unstable angina, chest pain, and new onset arrhythmias. This will allow us to help fast-track cardiac patients through their work ups, as well as allow the system to more efficiently manage inpatient placement. While our focus will be on cardiac patients, our purpose will be to continue to care for all patients whose diagnoses meet the criteria of the unit.

*An open house and grand opening celebration  
are being planned for the near future.*

## Temporary Pet Shelter for Physicians Pets During a Hurricane

Lee Memorial Health System is in the planning stages of providing temporary pet shelters at all campuses. Although it is recommended that the temporary Pet Shelter will be utilized only if no other alternatives are available, physicians that are on duty during emergency activation of the LMHS Hurricane Plan may have their pets lodged in the designated Pet Shelter. Physicians as well as employees should, whenever possible, consider sending pets with family members who plan to leave the area during the storm.

Limit: 3 dogs and 3 cats per person – other domestic pets (rabbits, ferrets, etc.) will be considered on a case-to-case basis. No exotic pets will be accepted (snakes, lizards, etc.).

Linda Hammer from the President's office is asking that you contact her with your name and phone number and number of pets at this time. She may be reached at **985-3502**.

## The Children's Hospital of SW Florida Semi-Annual Memorial Service

The Children's Hospital of SW Florida will hold its semi-annual memorial service in the Children's Memory Garden on Sunday April 17, 2005 at 2:00 pm. The garden is located on the campus of HealthPark Medical Center. This event honors the memory of children (from pregnancy through 18 years) who have passed away in the Lee Memorial Health System during the previous six months. All medical staff that are involved with the care of children are cordially invited to attend. This

event is very meaningful to the families, and they deeply appreciate knowing that their children are remembered by their physicians as well. There will be a special dedication to Rev. Jerry and Mrs. Ruth Griffin, creators of the Children's Memory Garden.

For more information, please contact **Spiritual Services at 335-7150, or the Pathway to Healing Pediatric/Pregnancy Bereavement Program at 432-3672.**

## Medical Staff Hotline

*For Medical Staff issues or concerns, call the Medical Staff Hotline @ 334-5700.*

# Document Status for Accurate Severity Profile From "A Minute for the Medical Staff"

*Robert S. Gold, MD*

For the past decade, insurance companies and state agencies have profiled physicians' utilization (both by cost per patient for specific diagnoses and overall utilization). For two years, the JCAHO and the federal government have profiled physicians individually for quality issues and aggregately for distinctive statistical feedback. And individual firms have gathered data on cost per patient, length of stay, and morbidity and mortality rates.

The conclusions of these comparative data stem from individual ICD-9-CM codes and severity-adjusted DRG data, which come from coded Medicare and Medicaid records. Severity adjustment is key when discussing good v. bad profiles.

Accurately documenting the true severity of your patients' illnesses affects severity adjustments most. Using the right words in the medical record allows for better ICD-9 codes.

## **Status quo or severe case?**

Certain disease processes are associated with chronic, stable conditions. Asthmatic bronchitis can be chronic and stable, congestive heart failure (CHF) can be chronic and stable, as can renal failure, anemia of various etiologies, osteomyelitis, respiratory failure, and several other conditions.

Patients who have these conditions are considered stable unless you indicate otherwise. For stable patients, you are limited in your professional billing for visits in which you list these diseases, whether the visits

occur in the office or in the hospital. You primarily maintain status quo. The complexity of medical decision-making may be there because of the myriad diagnostic entities that you monitor, but the patient is not sick. Complexity is there; severity isn't.

Think of it this way: Who's sicker? A patient with stable anemia or a patient with anemia due to acute blood loss? A patient with stable CHF or a patient with acute systolic failure from an ischemic event who also has chronic, stable diastolic failure from hypertensive cardiomyopathy? A patient with stable, chronic renal failure or a patient with acute renal failure due to sepsis?

We are used to writing down certain diagnoses because they exist, and we turn our attention to them in the clinical setting. For example, take pulmonary edema. A patient is seen in the emergency department with sudden onset of shortness of breath, cyanosis, oxygen saturations in the 70s before administration of oxygen, and a chest film showing pulmonary edema.

This is clinically an emergent situation. It's crucial that we rapidly determine the etiology of the sudden change and see whether we can reverse it and retrieve the clinical situation. But if you only document "pulmonary edema," this case will be assigned a code for a chronic, stable condition. In this case, the severity of illness goes down the drain.

Define that this is acute pulmonary edema and document the etiology (e.g. cardiac or noncardiac in origin, due to an arrhythmia, acute systolic, diastolic left ventricular

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dysfunction, or right ventricular dysfunction). If it is noncardiac acute pulmonary edema, indicate whether it is due to blunt chest trauma, acute pulmonary embolism, sudden decompression after a plane ride, inhalation of bleach fumes, aspiration of gastric acid, or any of the 50 or so other causes of noncardiac pulmonary edema.

The “acute” makes the case severe and the “pathogenesis” makes it complex, accurate, and specific.

### **Note the failure type**

Anemia can be a chronic and stable condition. As such, it takes little to manage it during an individual visit, and there’s no severity at all. Anemia defaults to a “not otherwise specified” code. Anemia due to blood loss defaults to “chronic blood loss.” There is no urgency associated with these conditions, yet you may know that the patient is bleeding out, in hemorrhagic shock, or suffering from unstable angina due to a secondary condition. In these cases, the patient needs an urgent bleeding scan, colonoscopy, laparotomy, or thoracotomy. But if you only use the words that translate to a chronic, stable condition, that affects your severity profile.

The following are more conditions that benefit from “acute”, “chronic”, “stable” or “not otherwise specified” specifications.

- Bacterial endocarditis
- Osteomyelitis
- Chronic obstructive pulmonary disease
- Bronchitis
- Pyelonephritis, glomerulonephritis, cystitis to differentiate from the chronic variety
- Poliomyelitis
- Tuberculosis
- Viral hepatitis
- Leukemias or lymphomas, differentiating chronic v. acute v. remission
- Thyroiditis to differentiate acute from subacute from chronic and the causation
- Dementias and their etiologies, differentiating acute from chronic
- Schizophrenias and other cyclic mental disorders
- Otitis and mastoiditis
- Pericarditis and its etiology, differentiating acute from chronic
- Esophagitis, gastritis, duodenitis, or ulcers of any of these
- Diverticulitis, Crohn’s disease, ulcerative colitis
- Abdominal, chest, perinephric, or pelvic abscesses

## **Medical Library News**

A free trial of Gale’s databases, including *Health and Wellness* and *Health Reference Center Academic* has been extended until April 30th. In addition to health-related databases, Gale offers databases on business, technology, law, science and many others. You may access them from the link at the home page of the Medical Library on IntraLee and on the Internet. The user name and the password are changed:

username: april

Password: shower

## Continuing Medical Education - CME

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### **“UNDERSTANDING AND COPING WITH THE 2004 CONSTITUTIONAL AMENDMENTS”**

Robert McCurdy, Esq.  
Lee Memorial Hospital Auditorium

**Wednesday, April 13, 2005**

12:30 – 1:30 PM

**RSVP for Lunch by April 11th – 573-5680**

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### **“THE CHILDREN’S HOSPITAL OF SW FLORIDA ANNUAL PEDIATRIC CONFERENCE”**

**April 16 & 17 2005**

Sanibel Harbour Resort & Spa  
Topics include: Hypertension & Hyperlipidemia in the Pediatric Patient, Dermatology, Top Infectious Disease Articles, Infant Nutrition, Anemia and EMR.

**Earn up to 11 CME Credits. Call 574-0397 for registration info and a brochure.**

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### **“BREAST CANCER TUMOR CONFERENCE”**

Led by Thomas Carrasquillo, MD  
Cape Coral Hospital 5<sup>th</sup> Floor Conference Room

**Wednesday, April 20, 2005**

12:00 – 1:00 PM

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### **“TREATMENT OF SHOULDER PAIN IN THE AGING ATHLETE: THE STATE OF THE ART ...AND SCIENCE”**

John Mehalik, MD  
Lee Memorial Hospital Auditorium

**Wednesday, April 20, 2005**

6:30 – 7:30 PM

**RSVP for Dinner by April 18<sup>th</sup> – 573-5680**

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### **“HIV & CMV”**

Marshall D’Souza, MD  
Lee Memorial Hospital Auditorium

**Wednesday, April 27, 2005**

6:30 – 7:30 PM

**RSVP for Dinner by April 25<sup>th</sup> – 573-5680**

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If you have questions or would like to submit an article to Medical Staff News, please contact Joanne Gorgone, RN, BSN, CME Coordinator, Lee Memorial Health System, 636 Del Prado Boulevard, Cape Coral, Florida 33990

Phone: 239-574-0397 Fax: 239-772-6564

E-Mail: joanne.gorgone@leememorial.org