LEHIGH VALLEY
HOSPITAL AND
HEALTH NETWORK

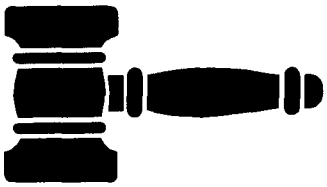
PROGRESS NOTES
Medical Staff

February, 2001 Volume 13, Number 2

In This Issue . . .

Valentine's Day Contest
February 14

In celebration of the season, Medical Staff Services will award a special prize to the Medical Staff member who is best in dressing in the tradition of St. Valentine's Day. On Wednesday, February 14, stop in the Medical Staff Services office before 3 p.m., and show Beth and Janet your suspenders with red hearts, cupid tie, etc. The decision of the judges is final!



From the President

"Be not afraid of going slowly; be afraid of standing still."
– Japanese proverb

Computer Assisted Physician Order Entry

A member of the medical staff observed that the new computerized system will need the same qualities that are essential to starting a new medical practice: availability, affability (read user-friendly) and ability. At a prior meeting, Medical Executive Committee membership was virtually unanimous in emphasizing the user-friendly aspect. If a new system requires multiple screens and considerable extra time, physicians will be understandably reluctant to adopt it.

REPORTS OF MEDICAL ERRORS IN U.S. HOSPITALS ARE STRONGLY INFLUENCING WHERE AMERICANS CHOOSE TO GO FOR THEIR HEALTH CARE. According to a survey of 2000 Americans by the Kaiser Family Foundation and the federal Agency for Healthcare Research and Quality (AHRQ), physician and hospital error rates were ranked by respondents at the top of their lists in deciding which hospitals or health plans deliver quality care, while 70 percent said that medical error rates tell them "a lot" about the quality of care a hospital or health plan can deliver, Yahoo News reported. The survey said that half of all American adults fear that a medical error will affect them or their families when receiving general health care services, and noted that consumers are not receiving more useful measures of health care quality, Yahoo News added. (Yahoo News, December 11, 2000)
http://dailynews.yahoo.com/h/nm/20001211/hl/errors_1.html

This system of using the computer to enter medical orders is new to most of the LVH medical staff, but is not new to an increasing number of hospitals in the country. We are learning from them as we start trials using Fujitsu wireless handheld units that offer mobile access to the Phamis system.

The system will reduce errors by reducing adverse drug interactions, allergies, wrong drug or dose due to illegibility of handwriting or signature. It will improve use of guidelines and clinical pathways, improve choice of cost-effective drugs, and improve clinical research utilization. The ultimate goal is improved quality of care. Insurers and the public will demand this as a quality issue in the near future.

(Continued on Page 2)

(Continued from Page 1)

Members of the LVPHO I/S Committee and Dr. Don Levick have been working hard on this critical project at several different levels. Don will discuss this further at the Medical Executive Committee meeting in February.

CAT Fund and the Malpractice Crisis in Pennsylvania

INCREASES IN MALPRACTICE INSURANCE PREMIUMS COULD LEAD TO SHORTAGES IN SURGEONS, NEUROSURGEONS, OBSTETRICIANS AND OTHER SPECIALTIES IN THE PHILADELPHIA AREA. At Frankford Hospital's three facilities in Northeast Philadelphia and Bucks County, all 12 active orthopedic surgeons decided to put down their scalpels after their malpractice rates nearly doubled to $106,000 each for 2001, reported the Philadelphia Inquirer. Philadelphia juries have in recent months awarded a string of record-setting, multi-million-dollar verdicts, while physicians in counties surrounding Philadelphia are apparently being sued in Philadelphia courts in increasing numbers because of the ease with which plaintiff attorneys can shift trial venues. Only New York pays out more than Pennsylvania in malpractice awards, while Philadelphia alone paid out more in 1998 malpractice cases than the entire state of California, according to data from the National Association of Insurance Commissioners. (Philadelphia Inquirer, December 31, 2000) http://www.phillynews.com/content/inquirer/2000/12/31/front_page/MEDMAL31.ht

MALPRACTICE AWARDS SURGE IN PA
http://physiciansnews.com/cover/101.html

Plaintiff's attorneys now seek the Philadelphia venue for their malpractice trials due to the track record of awards there. While the reason for this problem to be focused in Pennsylvania (especially Philadelphia) is not clear (at least to me), there is no question that we have a crisis brewing. We will be discussing the malpractice surge and the CAT Fund at the Medical Executive Committee meeting in February and, hopefully, will have some advice on this issue that affects us all.

Conundrum: On one hand, experts from the American College of Surgeons and other sources advise us that solutions for medical errors require a non-punitive systems approach to identify the real underlying source of the error. On the other hand, the present legal system is clearly punitive, very expensive, and has not been successful in the past in eliminating medical errors (otherwise the number of malpractice cases would surely be declining by now). It is hard to escape the conclusion that our legal system has actually become an expensive impediment to improving the health care delivery system in this country.

Everybody can be great...because anybody can serve. You don't have to have a college degree to serve. You don't have to make your subject and verb agree to serve...You only need a heart full of grace. A soul generated by love.

- Martin Luther King, Jr.

Respect

We will continue to highlight the goals of the medical staff leadership on a recurring basis in ***Medical Staff Progress Notes***. We endeavor to respect and value each member of the medical staff as a professional with a contribution to make. We understand the practice pressures, monetary pressures and time pressures that you live with daily. Your presence on the LVH medical staff is the culmination of years of hard work, credentialing, continuing professional education and constant scrutiny by government and managed care, as you focus on delivering quality medical and dental care to your patients and the community you serve. We all need to keep this "frame of reference" when interacting as members of the LVH team and maintain a mutual attitude of respect. This may not always be easy – from the Latin (notum easium).

TEAMWORK = WE CAN DO MORE TOGETHER

Edward M. Mullin, Jr., MD
Medical Staff President

Pro tempore

In January, in an effort to keep the Medical Staff informed in a timely manner of any changing developments on the hospital/medical scene, the Medical Staff Leadership instituted an informal e-mail message which will appear between the editions of ***Medical Staff Progress Notes***. This new communiqué will be called **Pro tempore** (meaning "for the time being"). This e-mail update will appear around mid-month, while ***Medical Staff Progress Notes*** are published at the beginning of each month. **Pro tempore** will also include agenda topics for the upcoming Medical Executive Committee meeting. This new communiqué is another step toward an electronic communication system, which is a goal of the Medical Staff Leadership.

News from CAPOE Central

The CAPOE project continues to make progress. Members of the I/S Department and I have begun to make rounds with the Trauma team to learn their work process. This will help in the design and implementation of CAPOE. The Design Team has also begun to meet. This is a group of physicians, nurses and support staff who will provide input and feedback regarding the screen design and user interface of the CAPOE system. The members have been provided with a test version of the system, and will be dealing with specific design issues over the next several weeks. I am encouraged by everyone's interest and enthusiasm, especially given that the meetings begin at 6:30 a.m. The members of the Design Team will also serve as resources for the Medical Staff. If you would like a demo of the system, please contact me or any member of the Design Team listed below.

Members of the Design Team

- Don Belmont, MD
- David Caccese, MD
- Dave Carney, MD
- Michael Ehrig, MD
- Larry Glazerman, MD
- Rick MacKenzie, MD
- Rovinder Sandhu, MD
- Brian Stello, MD
- Jeff Faidley, MD, Internal Medicine Resident
- William Bromberg, MD, Chief Surgical Resident
- Betsy Davies, PA
- Daniele Shollenberger, CRNP

The PHO I/S Committee met on January 15, 2001. The main thrust of the group will be to investigate the various office-based prescription writing systems (i.e., iScribe, AllScripts, PHAMIS/IDX PrescriptionPad). The group will attempt to identify a computerized prescription writing system that is most compatible with the majority of office practice management systems. We then hope to negotiate the best deal for our membership. We strongly encourage input from the medical staff. Please let me know your experiences with any of these systems, or if you would like to participate in this process.

Don Levick, MD, MBA
Chair, LVPHO I/S Committee
Phone: (484) 884-4593

Urologic Cancer Second Opinion Service

In an effort to provide a needed service for patients in the Lehigh Valley area and attract out-of-area patients, the Urologic Cancer Second Opinion Service was developed. This service, which opened at LVH-Muhlenberg in July, 2000, is the first of its kind in the region and features four LVHHN specialists -- Victor M. Aviles, MD, medical oncologist; Steven J. Perch, MD, radiation oncologist; Melvin L. Steinbook, MD, urologist, and Joseph G. Trapasso, MD, the region's only fellowship-trained urologic oncologist.

"People diagnosed with prostate, bladder, kidney or testicular cancer often have questions about side effects, risks and the best treatment," said Gregory R. Harper, MD, physician-in-chief of cancer services. "Our team evaluates patients in one visit and gives them a personal and written explanation of the recommendation, helping relieve some of their fear, confusion, and anxiety.

According to Dr. Harper, the service works closely with referring physicians by offering their patients convenient local access to second opinions. For the first time, area residents can get a second opinion for urologic cancer without having to travel to Philadelphia or New York. Patients are expected from as far north as Binghamton, NY, as far east as north-central New Jersey, as far west as Lancaster, and as far south as Montgomery, Bucks and Chester counties.

The new service is a component of LVHHN Cancer Services that offers the latest diagnostic and treatment methods, including the area's most experienced laparoscopic surgery and the region's most experienced radioactive seed implants program. Patients are also offered information about a variety of urologic clinical trials and national research studies for treatment and prevention that are available through Cancer Services.

For more information regarding the Urologic Cancer Second Opinion Service, please call (610) 402-CARE (2273).

For Your Calendar

The fourth triennial Physician Recognition Dinner will be held on Saturday, March 31, at the Holiday Inn Conference Center in Fogelsville. Invitations will be mailed in February. Please mark your calendar!

E-mail Surrogates

With e-mail being used more and more frequently to communicate information to the Medical Staff, all members of the Medical Staff are encouraged to read their e-mail regularly or to designate a staff member to be your appointed "surrogate" who can read and print out your e-mail messages for you on a daily basis.

To make life easier for you, following are instructions for setting up a surrogate:

Step 1 - Instructions for the User

To define a surrogate, you must specify the user(s) who you wish to name as surrogate and select the features the surrogate will be authorized to access.

1. From the main menu, choose Tools, Configure, and TAO Profile Option
2. Click the Surrogates tab
3. In the Current Surrogates box, either type in the Mail ID of the user you want to name as surrogate or click the Select button to select a Mail ID from the Mail ID Directory. To delete a Mail ID, select the Mail ID and press the Delete Key. When you remove a surrogate from the list, that user no longer has permission to act as your surrogate. To designate all users on your system as your surrogates, without references to class or department, enter *EVERYONE in the Edit box. To specify all members of your department as your surrogates, enter *DEPARTMENT in the Edit box.
4. In the Surrogate Abilities box, check the surrogate functions you want to grant to your surrogate(s). You may update a surrogate at any time to reassign powers. Select the desired Mail ID in the Current Surrogates box and then click the checkbox next to the function you want your surrogate to perform. Repeat this step for each Mail ID to receive surrogate powers.

Step 2 - Instructions for the Surrogate

Having access to Surrogate mode does not mean that you can act as someone's surrogate. Someone must have named you as surrogate and granted you powers in order for you to sign on to their account.

1. To enter Surrogate mode, choose File, Surrogate Mode. The Surrogate For dialog displays.
2. Use the Search box or scroll bar to locate the Mail ID of the person for whom you wish to act as surrogate. Double-click the desired Mail ID. It appears in the Surrogate For box. Click OK to confirm your selection. The TAO user whose Mail ID you specify must have designated you as their surrogate. If not, a message displays notifying you that you have not been defined as a surrogate. Once TAO recognizes you as a surrogate, the main TAO window displays. The Folder list and icon bar reflect the features that you can access.
3. When you have completed your surrogate activities and are ready to exit Surrogate mode, choose File, End Surrogate Mode.

If you or the person who you wish to become your surrogate is not currently on the hospital's e-mail system, please contact Pat Skrovanek in Physician Relations at (610) 402-9190.

Infection Control Notices

PreOp Showering

This is a reminder that chlorhexidine (Hibiclens) is the preferred antiseptic agent for pre-operative showering. Surgeons and their staff are encouraged to recommend the use of Hibiclens as the preferred pre-operative antiseptic agent when instructing patients to shower/bathe prior to surgery. Hibiclens is available at all three Health Spectrum Pharmacies (Cedar Crest & I-78, 17th & Chew and LVH-M) at a nominal cost to the patient.

Influenza

Influenza A and B are both circulating in the community. There is still time to vaccinate patients and their caregivers before the impact of the flu becomes severe. Delays in the manufacturing of the vaccine have subsided and full supplies are available. Aggressive measures to catch up on vaccinating patients at risk are needed to curb the effects of this potentially devastating virus.

If you have any questions, please contact the Infection Control Department at (610) 402-0680.

News from the Health Information Management Department

Document Imaging Update

Cedar Crest & I-78, 17th & Chew and Westgate (Behavioral Health Science Center) - The Health Information Management (HIM) Department is currently in the implementation phase for the document imaging (Pathways Image Manager) upgrade. System upgrade will provide enhanced functionality and better access to patient records. Because of an entirely new look and feel to the system screens, plus increased functionality, all physicians must receive additional training. The good news, however, is that the training will require about the same amount of time as the original training... *approximately 15-20 minutes.* Targeted implementation date for Cedar Crest & I-78, 17th & Chew, and Westgate is scheduled for April, 2001.

LVH-M - Following completion of the LVH upgrade, implementation will begin at the LVH-M campus beginning in May, 2001. Targeted implementation is as follows:

May, 2001 - Start scanning medical records into imaging system
June, 2001 - Physician Training
- Transition from paper to computerized access/record completion

Please stay tuned for updates regarding implementation progress.

Death Certificate Completion

Effective February 1, the HIM Department will no longer have the assistance of a Decedent Affairs Consultant to assist with death certificate completion. The current process will remain the same with physicians being asked to complete one death certificate (including the cause of death) and signature and one signed to have the cause of death typed and legible. You are encouraged to complete the death certificate at the time the patient is pronounced and cause of death is determined. Death certificates not completed by the time the patient's chart has been removed from the office will be handled through the HIM Department at Cedar Crest & I-78. Since this process is being handled in-house, death certificates will no longer be delivered to physician offices for signature/completion. The HIM staff will call to remind you of incomplete death certificates.

Since the death certificate is not part of the patient's medical record, you are requested to include the (1) circumstances of patient's death, (2) cause of death, and (3) whether an autopsy was performed in the final progress note in the medical record.

Advance Directive, Living Will, Durable Power of Attorney

The Patient Self-Determination Act mandates that all hospitals and other specified Medicare or Medicaid-funded health care facilities provide a mechanism for advising patients of their legal rights and options for refusing or accepting treatment if they are, or become, incapacitated. This can be done in the form of advance directives, living wills, durable power of attorney, do not resuscitate orders, right to die, etc.

Although the Patient Care Services staff discuss Advance Directives with patients when they are admitted for services, one of the recommendations made by the Joint Commission during the December, 2000 survey was that physicians initiate this process when patients are seen in their office prior to receiving services at the hospital. By beginning this process when they are seen in the physician's office, patients have an opportunity to ask questions of the physician and prepare to have the documentation available at the time services are provided in the hospital.

Suspension Process

Since the medical record completion process is electronic at the Cedar Crest & I-78, 17th & Chew, and Westgate (Behavioral Health Science Center) sites, physicians are again reminded to call the HIM Department at (610) 402-8240 once records are completed after suspension of privileges has been initiated. This will enable the HIM Department to notify the appropriate departments to resume admission privileges. Currently, there is no automated way for the system to notify HIM when the charts have been completed for physicians who have had privileges suspended.

If you have any questions regarding these issues, please contact Zelda Greene, Director, Health Information Management, at (610) 402-8330.

Coding Tip of the Month

Asthma with Acute Exacerbation - A chronic, stable condition is not necessarily an indication for admission to the hospital unless the patient just received this diagnosis for the first time or the disease process has deteriorated significantly. In the case of asthma, please be sure to document if the patient has acute exacerbation of asthma or chronic obstructive asthma with acute exacerbation.

Radiology News

Imaging to Screen for Renal Artery Stenosis

There are several imaging modalities available as screening tools to be used prior to more invasive angiography procedures in the evaluation of renal artery stenosis.

Magnetic resonance arteriography (MRA) with Gadoliniun enhanced sequences provides arteriogram-like images of the renal arteries. Sensitivities and specificities of greater than 90% are frequently reported in the literature. Advantages of MRA include the ability to obtain arteriogram-like images without the risk of nephrotoxic contrast material and the ability to evaluate the abdominal aorta prior to percutaneous or surgical intervention including the origin of the celiac artery (a potential source of inflow for surgical reconstruction). MRA can also provide functional information (i.e. delayed nephrogram) which may help determine the significance of a stenosis. Limitations of MRA include its frequent restriction to detection of stenoses of the main renal arteries as the divisional, segmental and small accessory arteries may be difficult to image reliably, visualize or grade accurately. Patient motion, metal/calcium artifacts and flow artifacts may degrade the images. Contraindications to MRA include the presence of a pacemaker or intraoccular metallic foreign body.

Another technique that provides arteriogram-like images of the renal arteries is computed tomography arteriography (CTA). Imaging is performed by continuous acquisition of a volume of data as the patient is moved through the scanner during rapid intravenous injection of a large volume of iodinated contrast material, approximately 150 ml. Several studies have reported sensitivities and specificities of >/= 90% for detection of main renal artery stenosis. As with MRA, the entire abdominal aorta can be imaged allowing evaluation of concomitant aortic and visceral vessel disease. Unlike MRA, in which the signal from the background tissues is suppressed or absent, CTA retains anatomic information about all of the abdominal contents and the degree of vascular calcification is accurately depicted. The chief disadvantage of CTA is its absolute requirement for iodinated contrast material. The technique is therefore not suitable for patients with renal insufficiency or contrast material allergies. Other limitations include inconsistent visualization of small or accessory arteries and distal branches of the main renal artery. Heavily calcified plaque may obscure the vessel lumen, making stenoses difficult to grade. Patient motion or respiration during the examination creates artifacts that degrade image quality.

Conventional ultrasound (US) may suggest renal artery stenosis when a small kidney is identified, but Doppler US is required for evaluation of renal artery flow. The diagnosis of renal artery stenosis is based upon the Doppler estimation of blood flow rather than imaging of the actual lesion. The site of the lesion can be localized by a sudden increase in the peak systolic velocity within the vessel. However, determination of the peak systolic velocity alone is a poor indicator of significant renal artery stenosis and, as a result, other criteria have been proposed for the diagnosis of a hemodynamically significant lesion such as a ratio of the peak systolic velocity in the renal artery to that in the aorta of >/= 3.5, or delay in the measured systolic acceleration in segmental renal arteries. Doppler US has reported sensitivity of 95% and specificity of 90% for detection of renal artery stenosis >/= 60%. However, complete Doppler US interrogation may not be possible in as many as 15% of patients. Large body habitus, tortuous arterial anatomy, severe renal artery stenosis or occlusion, and multiple renal arteries seriously limit the usefulness of the study. Also, these studies are extremely technologist operator dependent and may be very time-consuming requiring up to two hours in a difficult patient and may end in an inadequate study requiring MRA for evaluation.

Enalapril-stimulated nuclear studies image renal function and, indirectly renal artery flow. Renal artery stenosis is implied by decreased and delayed renal uptake of the radiopharmaceutical after the administration of Enalapril since Enalapril reduces the glomerular filtration pressure distal to the stenosis. In properly selected patients, the sensitivity of this test is approximately 90% and the specificity is approximately 95%. Although false-positive studies are unusual, false-negative results can occur in patients with bilateral disease, stenosis of one of multiple renal arteries, dehydration and azotemia.

At LVH, the current recommendation is to utilize MRA as the screening procedure of choice in the detection of renal artery stenosis, although CTA or a nuclear study is a viable alternative, especially in patients who cannot remain still for the time required for an MRA study.

If you have any questions, please contact Darryn Shaff, MD, Division of Diagnostic Radiology, at (610) 402-8088.

The members of the Division of Hematology-Medical Oncology have agreed to incorporate all patients from the hematology oncology clinic into their private office practices beginning in February.

The principal sources of referrals are medical and surgical clinic, inpatient medical and surgical service patients, and occasionally, other medical staff or the state hospital.

A letter to the Medical Staff communicating this change and the new referral process is attached on Page 15.

New Weight Management Program

The Helwig Diabetes Center Weight Management Program is open and taking referrals. The program is designed to assist the patient who needs to lose a minimum of 60 pounds (BMI over 30) and has at least one co-morbidity. Individual goals will be determined for each patient and the program will be guided by the NIH algorithm for obesity. Keith R. Doram, MD, Chief, Division of General Internal Medicine, and Larry N. Merkle, MD, Chief, Division of Endocrinology-Metabolism, provide physician leadership for the program and have been instrumental in its development. Maintaining open communication with the referring physician is an important part of using the NIH weight management algorithm. The staff of the Helwig Diabetes Center works with the referring physician during the program and as evaluations for education, medication and surgical options become relevant.

The program includes two segments. The initial nutrition counseling includes an individual assessment, diet evaluation and meal planning with the patient. The second segment of the program is six months in length and includes four weeks of nutrition education, four weeks of supervised exercise (Exercise for Life Programs), and four months of supervised follow-up. All patients must be willing and able to participate in each activity. The group exercise classes are instructed by certified fitness specialists and are sensitive to the needs of the obese individual. While the classes stress flexibility, strength training and conditioning, individuals participate according to tolerance at least three times a week. Nutrition education stresses behavioral change and healthy food selection including guidelines for shopping and restaurant meals. Supervised follow-up encourages the patient to maintain their program and allow the health educators to continue education and support.

This program offers a unique, comprehensive approach to the treatment of the obese patient. For more information, please contact the Helwig Diabetes Center at (610) 402-5000.

CHF Patients Sought for Clinical Trial

Patients with Class III or IV congestive heart failure may qualify for the COMPANION clinical trial, which is testing the effectiveness of bi-ventricular cardiac synchronization in improving patients' survival rate, quality of life and ability to exercise, and decrease their length and frequency of hospitalization. The study is sponsored by the Guidant Corp. and is being conducted at LVH by Luis Constantin, MD, James Sandberg, MD, and Steven Zelenkofske, DO, members of the Division of Cardiology.

COMPANION is a randomized study in which participants will be placed in one of the following groups:

- They will receive the CONTAK TR bi-ventricular pacemaker and optimal pharmacologic therapy; or
- They will receive the combination CONTAK CD pacemaker/defibrillator and optimal pharmacologic therapy; or
- They will receive only optimal pharmacologic therapy.

Please consider referring a patient for possible enrollment in this trial, based on the following inclusion and exclusion criteria:

Inclusion Criteria

1. Moderate or severe symptomatic heart failure for at least 6 months at the time of enrollment
2. Left or right bundle branch block with QRS $\geq$ 120 ms
3. Left ventricular ejection fraction $\leq$ 35 %
4. Older than 18 years

Exclusion Criteria

1. Meet the general indications for an implantable cardioverter defibrillator and/or pacemaker
2. Myocardial infarction within 60 days of randomization
3. Life expectancy < 6 months due to any other medical condition

To refer a patient to the COMPANION study, or to learn more about it, please call Patti Frey or Cherie Tyler, study coordinators for The Heart Care Group, at (610) 778-3667.

More Clinical Trials

Neurosciences and Pain Research is currently recruiting patients for clinical trials in the following areas:

- Adjuvant Cancer Pain - add-on therapy for patients who are currently on opioids.
- Diabetic Neuropathy - patients who are experiencing polyneuropathy secondary to diabetes.
- Constipation secondary to Opioid use - severe constipation, less than three bowel movements per week. May be using laxatives and other stool softeners.

There are several inclusion and exclusion criteria for each study. For more information on any of the studies or if you would like to discuss a potential candidate, please contact Maryjane Cerrone, RN, Clinical Research Specialist, at (610) 402-9008.

Cancer Survivorship Study

Some of your patients who are cancer survivors may ask you about a study in which they have been asked or will be asked to participate. The study, funded by the National Cancer Institute, and administered by the Center for Health Policy Research at Penn State University, is a collaboration of Lehigh Valley Hospital, Hershey Medical Center, Geisinger, and Johns Hopkins Oncology Center.

Patients identified by the tumor registries at the participating institutions who meet eligibility requirements are being asked if they would be willing to participate in a survey study about people who have had cancer. The study is designed to provide information about how their experience with cancer has affected them, especially employment and economic aspects of their life. The study has been reviewed and approved by the IRBs at each institution, and the Penn State University.

One of the stipulations of each IRB was that contacts with patients would be made by people from their "home" institution. Members of the cancer program at LVH are currently undertaking follow-up inquiries, and some of your patients may ask you about the study.

Responses are, of course, completely confidential, and will not be traceable to an individual respondent. The survivors have multiple opportunities to decline to participate, either by notifying by return postcard, declining when contacted by phone, or declining to continue during the questionnaire if they previously agreed to participate.

If you have any questions regarding this study, please contact Gregory R. Harper, MD, PhD, Physician in Chief, Cancer Services, at (610) 402-0512.

WOUND CARE SERVICES
are still available to you and your patients at the
Wound Healing Program at LVH-M
(formerly the Wound Care Center)

Hours of Operation:
Monday through Friday
8 a.m. to 4:30 p.m.

To make an appointment for your patients, please call the Wound Healing Program at (484) 884-2989.
For additional information, please call Ginger A. Holko, RN, BSN, Director, at (484) 884-2989.

Congratulations!

John D. Karabasz, DMD, Chief, Division of Prosthodontics, was awarded the Leonard Pool Prize for Outstanding Contribution to Health Care in the Lehigh Valley for his efforts in supporting optimal fluoridation of the Allentown water supply. Dr. Karabasz has been the driving force behind the effort to organize community support to improve the dental health of the citizens of Allentown. He has dedicated many hours to raising community awareness to the benefits of fluoride through his work with the Allentown-based Citizens for Children's Dental Health activities.

William J. Smolinski, DO, Division of Cardiology, was recently elected to Fellowship in the American College of Physicians - American Society of Internal Medicine.

Upcoming Seminars, Conferences and Meetings

Medical Grand Rounds

Medical Grand Rounds are held every Tuesday beginning at noon in the Auditorium of Lehigh Valley Hospital, Cedar Crest & I-78, and via videoconference in the First Floor Conference Room at Lehigh Valley Hospital-Muhlenberg.

Topics to be discussed in February will include:

- February 6 - New Techniques in Electrophysiology
- February 13 - Breast and Prostate Cancer Chemo Prevention Trials
- February 20 - Under and Over Eaters -- Young and Old: A Panel Discussion
- February 27 - Gastroesophageal Reflux and Esophageal Cancer

For more information, contact Diane Biernacki in the Deparmtent of Medicine at (610) 402-5200.

Department of Pediatrics Conference

"Update on Pediatric HIV Infection: Trends, Tests and Therapies" will be presented on Tuesday, February 6, beginning at 8 a.m., in the hospital's Auditorium at Cedar Crest & I-78.

For more information, please contact Kelli Ripperger in the Department of Pediatrics at (610) 402-2540.

Papers, Publications and Presentations

"My Bride," an oil painting by **John A. Altobelli, MD**, Division of Plastic Surgery, was featured on the cover of the November/December 2000 issue of the ***Aesthetic Surgery Journal***.

George A. Arangio, MD, Division of Orthopedic Surgery, Section of Ortho Trauma, completed the visiting clinician program in Foot and Ankle Surgery at the Rizzoli Orthopedic Institute in Bologna, Italy. While he was there, Dr. Arangio presented clinical applications of a mathematical model of the foot and ankle to the Department of Orthopedics and Biomechanics.

Victor M. Aviles, MD, Associate Chief, Division of Hematology-Medical Oncology, co-authored two articles. The first article, "Tall Cell Papillary Carcinoma of the Thyroid: Metastatic to the Pancreas," was published in the February, 2000 issue of ***Thyroid***. The second article, "Pilot Study of Organ Preservation Multimodality Therapy for Locally Advanced Resectable Oropharyngeal Carcinoma," was published in the October, 2000 issue of the ***American Journal of Clinical Oncology***. In addition, Dr. Aviles co-authored "Care of the Cancer Patient with Neutropenia and Thrombocytopenia," a chapter which appears in ***The Intensive Care Unit Manual***, which was published last year by W. B. Saunders.

Mark A. Gittleman, MD, Division of General Surgery, recently had an editorial published in the October, 2000 issue of **The American Journal of Surgery**. The editorial was titled "The Surgeon and Breast Ultrasonography Procedures."

Indru T. Khubchandani, MD, Division of Colon and Rectal Surgery, was a visiting professor at Jaslok Hospital, Bombay, India, from January 6-14. He demonstrated endoscopic procedures and helped to organize the Association of Colon and Rectal Surgeons of India with the Executive Committee of the Group.

Robert X. Murphy, Jr., MD, Division of Plastic Surgery/Hand Surgery, Section of Burn; **K. Lesley Birmingham, MD**, former Plastic Surgery resident; **Walter J. Okunski, MD**, Division of Plastic Surgery/Hand Surgery, Section of Burn; and **Thomas E. Wasser, PhD**, Department of Health Studies, co-authored an article, "Influence of Restraining Devices on Patterns of Pediatric Facial Trauma in Motor Vehicle Collisions," which was published in the January, 2001 issue of the ***Journal of Plastic and Reconstructive Surgery***.

Four members of the Division of Colon and Rectal Surgery -- **Robert D. Riether, MD**, **John J. Stasik, MD**, Chief, **Lester Rosen, MD**, and **Indru T. Khubchandani, MD** -- co-authored a paper with former Colon and Rectal Surgery resident, **Khawaja Azimuddin, MD**. The paper, "Transanal Endoscopic Microsurgery for Excision of Rectal Lesions: Technique and Initial Results," was published in the December, 2000 issue of ***Surgical Laparoscopy, Endoscopy & Percutaneous Techniques***.

Randolph Wojcik, MD, General Surgery resident, presented his paper, "Pre-injury Warfarini Does Not Impact Outcome in Trauma Patients," at the Eastern Association for the Surgery of Trauma Annual Meeting in Orlando, Fla., on January 11. Co-authors of the paper are **Mark D. Cipolle, MD, PhD**, Chief, Section of Trauma Research, **Elizabeth Seislove, RN**, and **Thomas E. Wasser, PhD**, Department of Health Studies.

Who's New

The Who's New section of ***Medical Staff Progress Notes*** contains an update of new appointments, address changes, resignations, etc. Please remember to update your directory and rolodexes with this information. In addition, the Medical Staff Directory is now available on the e-mail Bulletin Board -- **Directories**. Updates will be made to the Medical Staff Directory in e-mail at the beginning of each month.

Medical Staff

New Appointments

Richard E. Brannan, DO
Primary Care Associates in the LV, PC
1150 S. Cedar Crest Blvd., Suite 101
Allentown, PA 18103-7900
(610) 776-1603 ♦ Fax: (610) 776-6344
Department of Medicine
Division of General Internal Medicine
Site of Privileges - LVH & LVH-M
Provisional Active

Rene A. Chapados, MD
CHOP-Pediatric Critical Care Medicine
Children's Hospital of Philadelphia
324 S. 34th Street
Dept., Anesthesiology & Critical Care Medicine
Philadelphia, PA 19104-4399
(215) 590-5505 ♦ Fax: (215) 590-4327
Department of Pediatrics
Division of Hospital Based Pediatrics
Section of Critical Care Medicine
Site of Privileges - LVH & LVH-M
Provisional Limited Duty

(Continued on Page 10)

Robert J. Corba, DO
Allentown Anesthesia Associates Inc
The Center for Pain Management
1240 S. Cedar Crest Blvd., Suite 307
Allentown, PA 18103-6218
(610) 402-1756 ♦ Fax: (610) 402-1747
Department of Anesthesiology
Division of Pain Management
Site of Privileges - LVH & LVH-M
Provisional Active

Daniela H. Davis, MD
CHOP-Pediatric Critical Care Medicine
Children's Hospital of Philadelphia
324 S. 34th Street
Dept., Anesthesiology & Critical Care Medicine
Philadelphia, PA 19104-4399
(215) 590-5505 ♦ Fax: (215) 590-4327
Department of Pediatrics
Division of Hospital Based Pediatrics
Section of Critical Care Medicine
Site of Privileges - LVH & LVH-M
Provisional Limited Duty

Marguerite V. DeWitt, MD
Forensic Pathology Associates Inc
Lehigh Valley Hospital
Cedar Crest & I-78, P.O. Box 689
Allentown, PA 18105-1556
(610) 402-8144 ♦ Fax: (610) 402-5637
Department of Pathology
Division of Anatomic Pathology
Section of Forensic Pathology
Site of Privileges - LVH & LVH-M
Provisional Active

Cromwell C. Estrada, DO
19th Street Family Health Care, PC
19th Street Health Center
1901 Hamilton Street, Suite 2
Allentown, PA 18104-6413
(610) 437-7181 ♦ Fax: (610) 435-0597
Department of Family Practice
Site of Privileges - LVH & LVH-M
Provisional Active

Hong Jin, MD
Children's Heart Center of Northeastern PA
Allentown Medical Center
401 N. 17th Street, Suite 309
Allentown, PA 18104-5050
(610) 437-6687 ♦ Fax: (610) 437-5232
Department of Pediatrics
Division of Pediatric Subspecialties
Section of Cardiology
Site of Privileges - LVH & LVH-M
Provisional Active

Eva R. Michael, MD
(Solo Practice)
1566 Eighth Avenue
Bethlehem, PA 18018-1829
(610) 691-8502
Department of Family Practice
Site of Privileges - LVH & LVH-M
Provisional Active

Joel D. Portnoy, MD
CHOP-Pediatric Critical Care Medicine
Children's Hospital of Philadelphia
324 S. 34th Street
Dept., Anesthesiology & Critical Care Medicine
Philadelphia, PA 19104-4399
(215) 590-5505 ♦ Fax: (215) 590-4327
Department of Pediatrics
Division of Hospital Based Pediatrics
Section of Critical Care Medicine
Site of Privileges - LVH & LVH-M
Provisional Limited Duty

Steven E. Schultz, MD
CHOP-Pediatric Critical Care Medicine
Children's Hospital of Philadelphia
324 S. 34th Street
Dept., Anesthesiology & Critical Care Medicine
Philadelphia, PA 19104-4399
(215) 590-5505 ♦ Fax: (215) 590-4327
Department of Pediatrics
Division of Hospital Based Pediatrics
Section of Critical Care Medicine
Site of Privileges - LVH & LVH-M
Provisional Limited Duty

Kimberly R. Sheets, MD
Riverside Medical Associates
Riverside Professional Center
5649 Wynnewood Drive, Suite 203
Laurys Station, PA 18059-1124
(610) 261-1123 ♦ Fax: (610) 262-1739
Department of Family Practice
Site of Privileges - LVH & LVH-M
Provisional Affiliate

Eric P. Wilson, MD
Peripheral Vascular Surgeons, PC
1259 S. Cedar Crest Blvd., Suite 301
Allentown, PA 18103-6260
(610) 439-0372 ♦ Fax: (610) 439-8807
Department of Surgery
Division of Vascular Surgery
Site of Privileges - LVH & LVH-M
Provisional Active

Athena F. Zuppa, MD
CHOP-Pediatric Critical Care Medicine
Children's Hospital of Philadelphia
324 S. 34th Street
Dept., Anesthesiology & Critical Care Medicine
Philadelphia, PA 19104-4399
(215) 590-5505 ♦ Fax: (215) 590-4327
Department of Pediatrics
Division of Hospital Based Pediatrics
Section of Critical Care Medicine
Site of Privileges - LVH & LVH-M
Provisional Limited Duty

Appointments to Medical Staff Leadership Positions

George A. Arangio, MD
Department of Surgery
Division of Orthopedic Surgery
Section of Ortho Trauma
Position: Chief, Section of Foot and Ankle Surgery

Ravindra Bollu, MD
Department of Medicine
Division of Nephrology
Position: Medical Director, Transplant Nephrology

Keith R. Doram, MD
Department of Medicine
Division of General Internal Medicine/Geriatrics
Position: Vice Chair for Clinical Affairs, Department of Medicine

William F. Iobst, MD
Department of Medicine
Division of Rheumatology
Position: Vice Chair for Education, Department of Medicine

Michael J. Pistoria, DO
Department of Medicine
Division of General Internal Medicine
Position: Assistant Program Director, Internal Medicine Residency Program

Status Changes

Suzette V. Barreto, MD
Department of Medicine
Division of General Internal Medicine
From: Provisional Active
To: Associate
Site of Privileges - LVH & LVH-M

Theodore W. Eastland, MD
Department of Family Practice
From: Active
To: Honorary

Maria L. Jones, MD
Department of Medicine
Division of General Internal Medicine
From: Provisional Active
To: Associate
Site of Privileges - LVH & LVH-M

Charles F. Kelley, Jr., MD
Department of Pediatrics
Division of General Pediatrics
From: Active
To: Honorary

Neal Kramer, DPM
Department of Surgery
Division of Orthopedic Surgery
Section of Foot and Ankle Surgery
From: Associate
To: Provisional Active
Site of Privileges - LVH-M

Hugh J. O'Donnell, Jr., DDS
Department of Dentistry
Division of Pediatric Dentistry
From: Active
To: Associate
Site of Privileges - LVH & LVH-M

Geraldo A. Saavedra, MD
Department of Medicine
Division of Endocrinology-Metabolism
From: Provisional Active
To: Affiliate
Site of Privileges - LVH & LVH-M

Jeffrey W. Thompson, MD
Department of Family Practice
Division of Occupational Medicine
From: Active
To: Affiliate
Site of Privileges - LVH & LVH-M

John S. Wheeler, MD
Department of Pediatrics
Division of General Pediatrics
From: Affiliate
To: Honorary

Douglas C. Wiseman, DO
Department of Medicine
Division of Allergy
From: Associate
To: Affiliate
Site of Privileges - LVH & LVH-M

Two-Year Leave of Absence

Stephen K. Klasko, MD
Department of Obstetrics and Gynecology
Division of Primary Obstetrics and Gynecology

Robert P. Oristaglio, DO
Department of Medicine
Division of General Internal Medicine

Deborah L. Villeneuve, MD
Department of Obstetrics and Gynecology
Division of Primary Obstetrics and Gynecology

Additional One-Year Leave of Absence

Karen M. Matz, MD
Department of Obstetrics and Gynecology
Division of Primary Obstetrics and Gynecology

Address Changes

Wayne E. Dubov, MD
Good Shepherd Physician Group
Good Shepherd Outpatient-Cedar Crest
1243 S. Cedar Crest Blvd.
Allentown, PA 18103-7982
(610) 776-3278
Fax: (610) 402-5942

Manny Iyer, MD
201 Drift Court
Bethlehem, PA 18020
(610) 865-5500
Fax: (610) 861-3065

Northampton Medical Associates
- ❖ Michael S. Hortner, MD
- ❖ Lisa H. Medina, MD
- ❖ Daniel M. Spatz, Jr., MD

602B East 21st Street
Suite 400
Northampton, PA 18067-1247
(610) 262-1519
Fax: (610) 262-7125

Address Correction

Jonathan H. Munves, MD
800 Ostrum Street
Suite 102
Bethlehem, PA 18015-1009

Practice Changes

Joseph J. Grassi, MD
(No longer with Orthopaedic Associates of Bethlehem)
Orthopedic Associates of the Greater Lehigh Valley
3735 Easton Nazareth Highway
Suite 101
Easton, PA 18045-8338
(610) 252-1600
Fax: (610) 250-9257

Gerald M. Zupruk, MD
(No longer with Lehigh Valley Neurosurgery)
Eastern Pennsylvania Neurosurgical Associates
303 W. Broad Street
Bethlehem, PA 18018-5526
(610) 882-4460
Fax: (610) 691-8384

Resignations

Joseph L. Antonowicz, MD
Department of Psychiatry
Section of Consultation-Liaison Psychiatry

Darren G. Brenner, DMD
Department of Dentistry
Division of General Dentistry

Thomas L. Carter, Jr., MD
Department of Surgery
Division of Cardio-Thoracic Surgery

H. Thompson Dale, MD
Department of Medicine
Division of Cardiology

Constance R. DiAngelo, MD
Department of Pathology
Division of Anatomic Pathology
Section of Forensic Pathology

Beth A. Folio, MD
Department of Obstetrics and Gynecology
Division of Primary Obstetrics and Gynecology

Samuel R. Giamber, MD
Department of Medicine
Division of Cardiology

Donald P. Goldsmith, MD
Department of Pediatrics
Division of Pediatric Subspecialties
Section of Rheumatology

Charles Honeckman, DO
Department of Pathology
Division of Anatomic Pathology

Lila N. Inouye, MD
Department of Pathology
Division of Anatomic Pathology

Anna Niewiarowska, MD
Department of Medicine
Division of Hematology-Medical Oncology

Janet L. Osborne, MD
Department of Obstetrics and Gynecology
Division of Gynecology
Section of Gynecologic Oncology

Rajen P. Oza, MD
Department of Medicine
Division of Hematology-Medical Oncology

Susan K. Pedott, DMD
Department of Dentistry
Division of Endodontics

Peter R. Puleo, MD
Department of Medicine
Division of Cardiology

Steven J. Svabek, DO
Department of Surgery
Division of Orthopedic Surgery

Richard C. Wilson, MD
Department of Medicine
Division of Cardiology

Yelena M. Yermak, MD
Department of Psychiatry
Section of Consultation-Liaison Psychiatry

Allied Health Professionals
Appointments

Patti Sue Connolly, PA
Physician Extender
Physician Assistant - PA
(Orthopaedic Associates of Allentown - Gregor M. Hawk, MD)
Site of Privileges - LVH & LVH-M

Ethyl C. Davis, CRNA
Physician Extender
Professional - CRNA
(Allentown Anesthesia Associates Inc - Alphonse A. Maffeo, MD)
Site of Privileges - LVH & LVH-M

Natalie L. Fahs, PA-C
Physician Extender
Physician Assistant - PA-C
(Cedar Crest ENT Associates, PC - Theodore H. Gaylor, MD)
Site of Privileges - LVH & LVH-M

Archie W. Hartzell, PA
Physician Extender
Physician Assistant - PA
(Orthopaedic Associates of Bethlehem, Inc - Thomas S. Sauer, MD)
Site of Privileges - LVH-M

David G. Kane, PA
Physician Extender
Physician Assistant - PA
(Orthopaedic Associates of Bethlehem, Inc - Ranjan Sachdev, MD)
Site of Privileges - LVH-M

Erika L. Keller, CNM
Physician Extender
Professional - CNM
(The Midwives & Associates Inc - Garry C. Karounos, MD)
Site of Privileges - LVH

Cynthia S. Kisner, PA-C
Physician Extender
Physician Assistant - PA-C
(Peripheral Vascular Surgeons, PC - Victor J. Celani, MD)
Site of Privileges - LVH & LVH-M

Eileen M. Klang, LPN
Physician Extender
Professional - LPN
(College Heights OBGYN Associates, PC - Thomas Hutchinson, MD)
Site of Privileges - LVH & LVH-M

Mary Ann T. Licwinko, CRNA
Physician Extender
Professional - CRNA
(Allentown Anesthesia Associates Inc - Alphonse A. Maffeo, MD)
Site of Privileges - LVH & LVH-M

Judith M. McDevitt, CRNP
Physician Extender
Professional - CRNP
(The Heart Care Group, PC - Joseph L. Neri, DO)
Site of Privileges - LVH & LVH-M

Georgiann Morgan, RN
Physician Extender
Professional - RN
(Opcor, PC - Fernando M. Garzia, MD)
Site of Privileges - LVH & LVH-M

Bradley A. Nace, PA-C
Physician Extender
Physician Assistant - PA-C
(Lehigh Valley Orthopedic Group, PC - Randy Jaeger, MD)
Site of Privileges - LVH & LVH-M

Ann Jeanette Peiffer, PA-C
Physician Extender
Physician Assistant - PA-C
(Opcor, PC - Fernando M. Garzia, MD)
Site of Privileges - LVH & LVH-M

Robert J. Peterson, PA-C
Physician Extender
Physician Assistant - PA-C
(Orthopaedic Associates of Bethlehem, Inc - Peter W. Kozicky, MD)
Site of Privileges - LVH-M

Change of Supervising Physician

Suzanne D. Amant, PA-C
Physician Extender
Physician Assistant - PA-C
From: Gastroenterology Associates Ltd - Michael H. Ufberg, MD
To: Gastroenterology Associates Ltd - J. Harry Pickle, MD
Site of Privileges - LVH & LVH-M

Dena L. Capobianco, PA-C
Physician Extender
Physician Assistant - PA-C
From: Gastroenterology Associates Ltd - Michael H. Ufberg, MD
To: Gastroenterology Associates Ltd - J. Harry Pickle, MD
Site of Privileges - LVH & LVH-M

Cynthia L. Dinsmore, CNM
Physician Extender
Professional - CNM
From: M. Bruce Viechnicki, MD & Associates PC - M. Bruce Viechnicki, MD
To: Lehigh Valley Women's Health Care Alliance - Carolyn Scott, MD
Site of Privileges - LVH

Wendy D. Grube, CRNP
Physician Extender
Professional - CRNP
From: Stephen K. Klasko, MD
To: OB-GYN at Trexlertown, PC - Larry R. Glazerman, MD
Site of Privileges - LVH & LVH-M

Cheryl L. Lichner, CRNP
Physician Extender
Professional - CRNP
From: Stephen K. Klasko, MD
To: OB-GYN at Trexlertown, PC - Larry R. Glazerman, MD
Site of Privileges - LVH & LVH-M

Janice A. Walck, CRNP
Physician Extender
Professional - CRNP
From: Department of Medicine - John P. Fitzgibbons, MD
To: Valley Gastroenterologists - Richard L. London, MD
Site of Privileges - LVH & LVH-M

Karen M. Williams, CRNP
Physician Extender
Professional - CRNP
From: Department of Medicine - John P. Fitzgibbons, MD
To: Good Shepherd Physician Group - Jane Dorval, MD

Additional Supervising Physician

Constance A. Molchany, CRNP
Physician Extender
Professional - CRNP
Additional Supervising Physician: Robert X. Murphy, Jr., MD - Wound Healing Program at LVH-M
Site of Privileges - LVH & LVH-M

Resignations

Lorraine O. Dillon, PA-C
Physician Extender
Physician Assistant
(LVPG-Trauma Surgery)

Marjorie S. Hardy, PhD
Associate Scientific
Psychologist
(Muhlenberg College)

Jennifer M. Knights, PA-C
Physician Extender
Physician Assistant
(Orthopaedic Associates of Allentown)

Patricia A. Landis, CST
Physician Extender
Technical - Surgical Technician
(Orthopaedic Associates of Bethlehem Inc)

Chantal M. Lobo, CRNP
Physician Extender
Professional
(ABC Family Pediatricians)

Gabriel O. Ozonuwe, PA-C
Physician Extender
Physician Assistant
(LVPG-Trauma Surgery)

John & Dorothy Morgan Cancer Center

Gregory R. Harper, M.D., Ph.D.
Physician in Chief, Cancer Services
Suite 408
1240 S. Cedar Crest Boulevard
Allentown, PA 18103
Phone: (610) 402-0512 Fax: (610) 402-0504
E-mail: gregory.harper@lvh.com

LEHIGH VALLEY
HOSPITAL AND
HEALTH NETWORK

January 2001

Dear Colleagues,

Lehigh Valley Hospital is committed to caring for all patients regardless of insurance coverage or ability to pay. For 25 years, this commitment to our community for patients with cancer and blood disorders has been through the oncology and hematology clinic, initially of the Lehigh Valley Hospital, and since 1993, at the John and Dorothy Morgan Cancer Center.

The medical oncologists and hematologists at Lehigh Valley Hospital remain committed to caring for patients and their families regardless of financial circumstances. Starting in February 2001, these patients will be seen in the private offices of our participating oncologists: Drs. Shah, Giangiulio, and Cormier, and Drs. Aviles, Barron, Harper, and Post. This change will enhance continuity of care, increase access to service, and facilitate flexibility in scheduling appointments at the convenience of the patient.

All new patients requiring medical oncology/hematology consultation, whether inpatient or outpatient, and who are under insured will be referred to the John and Dorothy Morgan Cancer Center through 610-402-2273 (610-402-CARE). The request for referral will be communicated to the participating practice; the practice office will contact the referring physician (office) to obtain the appropriate information as they would for any referral, and the referring physician will be requested to talk to the consulting oncologist/hematologist before the appointment is confirmed.

Consultation requests for radiation oncology will continue to be directed to 610-402-0700–this does ***not*** represent a change in current practice for referrals to radiation oncology.

On behalf of the oncologists and hematologists at the John and Dorothy Morgan Cancer Center, I am pleased to announce this change, which we believe will lead to improved physician and patient satisfaction with our cancer services.

Wishing you all the very best in the New Year.

Sincerely yours,

Celebration of Community

Gregory R. Harper, MD, Ph.D.
Physician in Chief

Press Release

ALERT - PHYSICIAN SCAM - ALERT

The following has recently come to the attention of the Drug Enforcement Administration, Office of Diversion Control:

The Medical Society of New Jersey has recently learned that con artists have targeted physicians with a phony questionnaire asking for vital, confidential information, including the physician's DEA numbers, social security number and credit card data.

The New Jersey State Attorney General is investigating this mailing sent to physicians on what appears to be New Jersey Division of Consumer Affairs letterhead, which seeks to "update" physician "profiles in our system." The letter claims that by responding, a physician could order controlled dangerous substances over the phone or via the internet.

Not only could the solicited personal information make the physician a victim of financial fraud, but the confidential professional information – such as DEA number – could facilitate illegal drug trafficking. In fact, the fraudulent questionnaire asks the physician to provide two signature samples ... "as you sign on your prescription pad."

Do not respond if you have received such a questionnaire. The Division of Consumer Affairs verifies that this is not their mailing, and that the return address with a Newark post office box is for a non-government entity. Contact the Division of Consumer Affairs at 1-800-242-5846 or the New Jersey State Board of Medical Examiners at 609-826-7100 if you have any doubts regarding the authenticity of any document received from a state agency.

If you believe that you may have recently filled out and sent in such a questionnaire, immediately contact the Consumer Affairs Enforcement Bureau during regular business hours at 973-504-6300.

The Medical Society of New Jersey is assisting the Division of Consumer Affairs in alerting physicians about this scam and will continue to update you as necessary. Continue to check www.msnj.org for additional postings.

If you reside outside of New Jersey and have experienced a similar inquiry, please contact your state professional board and/or consumer affairs division. Always safeguard your personal and professional data. Always verify the need and authority of unusual requests for information.

The Center for Educational Development and Support

February 2001

News from the Library

OVID Training.
The Library has completely converted to OVID's on-line MEDLINE system. This Web-based system is updated daily by Ovid. Call Barbara Iobst in the Health Sciences Library at 610-402-8408 to schedule a one-on-one training session.

New Publications in the CC Campus Library.

"Cultural Competence Compendium"
Author: American Medical Association
Description: This publication "includes resources for health care and communication issues confronting people from underrepresented and underserved racial, ethnic, and socioeconomic groups and those with physical and mental illnesses or disabilities."

New Publications in the 17 Street Library.

"Mayo Clinic's Complete Guide for Family Physicians and Residents in Training"
Author: R. Bratton
Description: "This guide takes a different approach aimed at the individual physician or resident physician and focuses on what this person can expect and how to survive the labors of residency training and being in family practice." It includes information on consultation/
referrals, teaching, time management, computers, osteopathic medicine in family practice, board certification/recertification, etc.

New Publications in the LVH-Muhlenberg Library.

"Pocket Atlas of Emergency Medicine"
Author: K. Knoop, et al.

Computer-Based Training (CBT):

Computer Based Training (CBT) programs are available for LVHHN staff. Topics covered by the CBT programs include:

Access 2.0	Power-Point 4.0
Windows NT 4	Word 97
Excel 97	Access 97
PowerPoint 97	Lotus 1-2-3 Millennium
WordPerfect 8	E-mail GUI

PHAMIS LastWord Inquiry Only commands

CBT programs replace the instructor-led classes previously held at Lehigh Valley Hospital. A proctor will be in the room with the learner while he/she takes the CBT, but the learner will control the pace and objectives of the learning.

Computer Based Training takes place in **Suite 401** of the **John & Dorothy Morgan Cancer Center** (the computer training room) and in the **Muhlenberg Hospital Center computer training room** (off the front lobby). The schedule of upcoming dates is as follows:

CBT sessions for JDMCC, suite 401 are as follows:

March 13, 8 am - Noon

Sessions at MHC, I.S. Training room are as follows:

March 20, Noon – 4pm

Twelve slots are available for each session.

To register, please contact Suzanne Rice via e-mail or at 484-884-2560 with the following:

- date of session
- second date choice
- department
- phone number

You will receive an e-mail confirming your choice within two business days. If you have any questions, please contact Craig Koller at 610-402-1427 or through e-mail.

Any questions, concerns or comments on articles from CEDS, please contact Bonnie Schoeneberger 610-402-1210

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
# February 2001				1 **12 Noon** Combined TB JDMCC-CR1 A/B	2 **7:00 am** GYN T.B. NF AUD-CC/I-78	3
4	5 **12 Noon**- Colon/Rectal TB-JDMCC-CR1 A/B	6 **7 am** Surgical GR-CC- Aud **8 am**- Peds GR-CC-Aud **12 Noon**- Med GR-CC-Aud	7	8 **12 Noon** Combined TB JDMCC-CR1 A/B	9 **7 am** -OBGYN GR-CC-Aud **12 Noon** Breast TB-JDMCC-CR1 A/B	10
11	12	13 **7 am** Surgical GR-CC-Aud **8 am**- Peds GR-CC-Aud **12 Noon**- Med GR-CC-Aud	14 **12 Noon** -Pulmonary TB JDMCC-CR1A/B	15	16 **7 am** -OBGYN GR-CC-Aud **12 Noon** Breast TB-JDMCC-CR1 A/B	17
18	19 **12 Noon**- Colon/Rectal TB-JDMCC-CR1 A/B	20 **7 am** Surgical GR-CC-Aud **8 am**- Peds GR-CC-Aud **12 Noon**- Med GR-CC-Aud	21	22 **12 Noon** Combined-TB JDMCC-CR1 A/B	23 **7 am**-OBGYN GR-CC- Aud **12 Noon** Breast TB-JDMCC-CR1 A/B	24
25	26	27 **7 am** Surgical GR-CC-Aud **8 am**- Peds GR-CC-Aud **12 Noon**- Med GR-CC-Aud **12 Noon** - Urology TB-JDMCC CR1A/B	28			

Center for Educational Development and Support (CEDS)
moving
February 9, 2001
to
17th & Chew Street

Director CEDS

Martyn O. Hotvedt, Ph.D. 610-402-2561

Nursing Education

Susan Steward (Director) 610-402-2481

Kelly Beauchamps	610-402-2482	Kathy Hsu	610-402-2483
Sandy Blackledge	610-402-2342	Diane Kocsis	610-402-2343
Lyn Case	610-402-2313	Barry Mitchneck	610-402-2338
Jeanine DeLucca	610-402-2345	Donna Stout	610-402-2277
Edie Gray	610-402-2348	Ann Zeravsky	610-402-2814
Ladene Gross	610-402-2347		

Patient Education

Rita Bendekovits (Manager) 610-402-2379

Arlene Adamczak & Barbara Caserta 610-402-2484

Medical Education

Rosanne Rishko (Manager) 610-402-2591

Any Snyder 610-402-2554

Continuing Education

Bonnie Schoeneberger 610-402-2584

Grants & Community Outreach

Sallie Urffer (Manager) 610-402-2556

Secretary 610-402-2501

Office of Educational Technology

John Frankenfield (Director) 610-402-2408

Ina Ashford	610-402-2410	Christopher Sarley	610-402-2427
Craig Koller	610-402-2413	Gary Weisel	610-402-2505
Suzanne Rice	610-402-2475		

Palliative Care

Gretchen Fitzgerald 610-402-2552 Steven Lammers 610-402-2509

Conference Room

610-402-2597

Fax Number

610-402-2203

Mailing address:

Center for Educational Development and Support
17th & Chew Street
PO Box 7017
Allentown, PA 18015-7017

Inner office mailing address:

Center for Educational Development and Support
6T
17th & Chew

THERAPEUTICS AT A GLANCE

The following actions were taken at the November - December 2000 Therapeutics Committee Meeting - Clinical Pharmacy Services
Joseph Ottinger, R.Ph., MS, MBA, Christopher Moore, Pharm.D., Janine Barnaby, R.Ph.

Herbal Anticoagulants

I have been asked to provide a list of herbal remedies that have demonstrated antiplatelet activity or those that can affect bleeding times. It is important to remember that the discovery of warfarin was related to the observation that a group of bovines who ingested spoiled clover silage died from internal hemorrhage. Therefore it is not unrealistic that other plant-derived medicinals could have similar effects. Please remember that some of the data comes from in vitro studies and case reports. However it is important to take these factors into consideration when treating patients who take herbal remedies. Please consider the acknowledgment of herbal remedies when taking patient histories. At LVH, we treat herbal remedies as medications.

Anticoagulant Herbal Products

Alfalfa	Garlic
Angelica	Ginger
Aniseed	Gingko
Arnica	Ginseng,Panax
Asafoetida	Goldenseal
Bogbean	Horse-chestnut
Celery Seed	Horseradish
Cassia	Liquorice
Chamomile, German	Meadowsweet
Chamomile, Roman	Melilot
Chondroitin	Poplar
Clove	Prickly Ash
Danshen	Quassia
DHEA	Red Clover
Donq Quai	Woodruff
Evening Primrose Oil	Tonka Beans
Fenugreek	Willow
Feverfew	Yarrow
Fucus	

This list was modified from The Coumadin Drug and Herbal Product Guide, Dupont Pharma Inc. The authors of this reference cited numerous references from peer reviewed medical literature.

Budesonide For Pediatrics

Therapeutics Committee has approved the addition of budesonide suspension for inhalation to LVH formulary. This agent is a significant addition because it represents the only commercially available form of nebulized corticosteroid. It is currently only indicated for children. (12 months to 8 years of age) Please be aware that the drug requires the use of a jet-nublizer NOT an ultrasonic nebulizer.

Alendronate Weekly

Alendronate 70 mg tablets were added to LVH formulary. In clinical trials, it was demonstrated that the drug has the same efficacy and same incidence of side effects when administered by this method. This addition will hopefully promote patient compliance and decrease the risk of an adverse drug reaction as opposed to administering seven - 10 mg tablets once per week.

ADR Reporting

The quantity of Suspected ADR reports for the third quarter of 2000 were significantly reduced. The incidence ratios were the lowest on record. Unfortunately, this was felt to be due primarily to a decline in reports from

pharmacist-based observers. Staff pharmacists were alerted to this trend and have responded appropriately. Suspected incidents continue to represent a 'normal' pattern of manifestations consistent with the level of usage of specific groups of agents and the volume of activity in certain clinical areas. Only three "Severe" case reports were identified. With two of these episodes being the primary reason for the patient's admission to the hospital. An increase in reporting reactions from oncology areas continued; marking the second straight quarter where improved reporting was noted. This was principally perceived to be the direct result of additional clinical pharmacist interventions. One of the outcomes of this reporting was the development of a Hypersensitivity treatment Protocol to be published in this newsletter under a separate heading.

All health-care personnel are encouraged to report suspected adverse drug reactions. Copies of the Suspected Adverse Drug Reaction Documentation Form are available in all patient care areas. Complete as many portions of the form as you can or at least notify the Pharmacy staff of your observations. A pharmacist will review the case and complete/initiate the form as necessary. ALL REPORTS are confidential and they are summarized and presented to the Therapeutics committee. Cause-effect analysis and trending considerations are reviewed in this process. Patient allergy data are updated in accordance with the level of suspicion based on the Naranjo scale and patient's may receive "ID" cards describing the nature of the reactions and the presumed associated cause. This information card can be carried by the patient and presented in future health-care interventions requiring drug treatments.

Following are the particulars for this quarter

	3rd Qtr	2nd Qtr	1st Qtr
Reports per 10,000 doses	0.52	0.63	0.62
Reports per 1,000 admissions	4.09	5.53	5.54

Third Quarter Data

Table 1: **Adverse Reactions By Reporter**

Reporter	# Reports	% Reports
Pharmacist	24	52.1
Nurse	17	37.0
X-Ray Technician	4	8.7
Physician	1	2.2
TOTAL	46	100

Table 2: **Adverse Reactions By Drug Category**

Drug Category	# Reports	% Reports
Antibiotics	14	30.4
Contrast Dyes	9	19.6
Psych/Neurologic Agents	7	15.2
Narcotic Analgesics	1	2.2
Anticoagulants	7	15.2
Dopamine	0	0
Cardiac	0	0
Oncology	4	8.7
Other	4	8.7
TOTAL	46	100

Table 3: **Probability of Drug-Related Reactions**

Probability	# Reports	% Reports
Doubtful	0	0
Possible	12	26.1
Probable	31	67.4
Highly Probable	3	6.5
TOTAL	46	100

Table 4: **Adverse Reaction Severity**

Classification	# Reports	% Reports	Most Common
Mild	17	37.0	Contrast dye- 6
Moderate	26	56.5	abcix w/hep;inflix-3
Severe	3	6.5	see case
TOTAL	46	100	reports- 1 each

Drug Formulary Issues- Argatroban

Argatroban is indicated for use as an anticoagulant for prophylaxis or treatment of thrombosis in patients with heparin-induced thrombocytopenia (HIT). Argatroban may also have potential utility in disseminated intravascular coagulation (DIC), as an adjunct to thrombolytic agents in the treatment of acute myocardial infarction, heparin-induced thrombosis syndrome, and stroke. Other agents used in patients with heparin-induced thrombocytopenia are danaparoid and lepirudin. The FDA-approved indications for argatroban and lepirudin are summarized in Table 1.

Table 1: FDA-Approved Indications for Argatroban and Lepirudin:

Indication	Argatroban	Lepirudin
Anticoagulation for prophylaxis of thrombosis in patients with HIT	X	
Anticoagulation for treatment of thromboembolic disease (to prevent further complications) in patients with HIT	X	X

HIT occurs in 1% to 5% of the patients treated with unfractionated heparin. Generally, HIT develops after 5 to 8 days of heparin therapy, but it may occur earlier in patients who have received heparin therapy during the previous 3 months. It can result in numerous thrombotic complications, such as stroke, myocardial infarction, deep venous thrombosis, pulmonary embolism, and ischemic damage of a limb. The risk of developing HIT is higher with porcine heparin than beef heparin, unfractionated heparin than low-molecular-weight heparin, and patients treated with high-dose heparin versus low-dose heparin.

Acute HIT is managed by the discontinuation of the heparin therapy. Warfarin is not used as a substitute for the heparin during acute HIT because it can deplete protein C and cause microvascular thrombosis. Warfarin therapy should be delayed until the platelet count has returned to normal levels. Low molecular weight heparins are also not universal substitutes for heparin in a patient with acute HIT because platelet aggregation cross-reactivity *in vitro* has been demonstrated with some of these products. Danaparoid, a heparinoid, may be useful in some patients. Danaparoid has a lower risk of nonidiosyncratic platelet activation and less cross-reactivity for HIT-IgG than unfractionated heparin and the other low molecular weight heparins. Hirudin, a recombinant antithrombin similar to that found in the salivary gland of a medicinal leech, is another potential alternative agent. Argatroban and lepirudin are approved for use as an anticoagulant for the treatment of thromboembolic disease in patients with HIT and argatroban is approved for the prophylaxis of thrombosis in patients with HIT.

CLINICAL PHARMACOLOGY: Argatroban is a synthetic, reversible direct thrombin inhibitor.

Argatroban is highly selective for thrombin. At therapeutic concentrations, it has little or no effect on related serine proteases (trypsin, factor Xa, plasmin, and kallikrein). It can inhibit the action of both free and clot-associated thrombin. Argatroban also inhibits the formation of thrombin-antithrombin III (ATIII) complexes by competing with ATIII for thrombin. By inhibiting the catalytic site of thrombin, argatroban subsequently affects the conversion of fibrinogen to fibrin, the formation of the thrombin-antithrombin III complex, platelet aggregation, the release of plasminogen activator from vessel walls and activation of factors V, VIII, and XIII.

Argatroban does not accelerate the consumption of ATIII, in contrast to heparin, but rather is

consumed in lieu of ATIII and is thus potentially useful in ATIII-deficient situations. In addition, it appears to reduce the vasomotor effects of thrombin.

This is significant in the treatment of certain pathologies. For example, ATIII-deficient patients see a greater occurrence of thrombosis and ATIII is decreased in disseminated intravascular coagulation (DIC). Heparin is dependent on ATIII for its activity while argatroban works independently of the blood component. Argatroban is not neutralized like heparin by platelet products (factor IV) and is more effective against clot-bound thrombin than hirudin. Clot-bound thrombin is resistant to the inhibitory effects of the heparin-ATIII complex. In contrast, argatroban inhibits clot-bound as well as free thrombin.

When administered by continuous infusion, anticoagulant effects and plasma concentrations follow similar, predictable temporal response profiles, with low intersubject variability. Immediately upon initiation of infusion, anticoagulant effects are produced as plasma argatroban levels begin to rise. Steady-state levels of both drug and anticoagulant effect are typically attained within 1 to 3 hours and are maintained until the infusion is discontinued or the dosage adjusted. Dissipation of the anticoagulant effects was about 4-fold faster for argatroban than heparin. Argatroban's reversible inhibition, in comparison to hirudin's essentially irreversible inhibition, may represent a distinct advantage. Rapid dissociation of argatroban from thrombin would be expected to lead to a more rapid return of aPTT and ACT to normal values (see Table 2). However, this reversibility may also be associated with a greater propensity for induction of a hypercoagulable state after administration is terminated.

Table 2: Comparison of Selected Anticoagulants:

	Argatroban	Heparin	Hirudin	Lepirudin
Molecular Weight (D)	526.66	12,000	7,000	6979.5
Direct Thrombin Inhibition	Yes	No	Yes	Yes
Inhibition Speed	Fast	Fast	Slow	Slow
Thrombin Binding Affinity	+	++	+++	+++
Reversibility	Reversible	Reversible	Irreversible	Irreversible
Effect on aPTT	++	+++	+++	+++
Effect on PT	++	+	+++	+++
Effect on TT	++	+++	+++	+++
Inhibition of Clot-Bound Thrombin	+++	0	+	+
Antithrombotic Efficacy	+++	++	+++	+++
Hemorrhagic Potential	++	+++	+++	+++
Inhibition of Thrombolysis	0	0	0	0

Argatroban does not interact with heparin-induced antibodies. Antibody formation to argatroban has not been observed.

PHARMACOKINETICS: Argatroban binds rapidly to thrombin at the catalytic site and apolar region at a diffusion controlled rate. Since antithrombotic efficacy of thrombin inhibitors requires rapid complete inhibition of local thrombin concentrations, a more rapid association rate (as argatroban possesses versus hirudin) may translate into a clinical advantage.

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The mean half-life of argatroban is about 40 minutes. Argatroban is primarily metabolized by hydroxylation and aromatization in the liver to four known metabolites. Cytochrome P450 3A4/5 enzyme has been identified to catalyze formation of the metabolites *in vitro*, although it

does not appear to play a significant role in the *in vivo* metabolism of argatroban.

The pharmacokinetics of argatroban were not altered in subjects with mild, moderate, or severe renal impairment. Renal impairment appears to only mildly influence aPTT and ACT values achieved while receiving argatroban. Dosage adjustments are recommended in patients with hepatic impairment.

COMPARATIVE EFFICACY: FDA approval was granted on the bases of a historically controlled efficacy and safety study and a follow-on efficacy and safety study.

CONTRAINDICATIONS, WARNINGS, AND PRECAUTIONS: Argatroban is contraindicated in patients with overt major bleeding, and in patients hypersensitive to argatroban or an of the product ingredients (D-sorbitol, dehydrated alcohol) Individuals with a condition predisposing them to a bleed should also be assessed for the benefit of therapy with argatroban and be closely monitored. Examples of conditions that might put a person at risk of bleeding include duodenal and gastric ulcers, history of a recent operative or invasive procedure, renal insufficiency, sub-acute bacterial endocarditis, or thrombocytopenia.

Argatroban should be used with extreme caution in disease states and other circumstances in which there is an increased risk of hemorrhage,

When argatroban therapy needs to be discontinued, some sources have recommended tapering the dose instead of abruptly discontinuing the drug. Abrupt discontinuation may lead to a hypercoagulable state since some patients have shown an increase in concentration of thrombin-antithrombin III complex within 2 hours of discontinuation of the argatroban infusion.

In patients with hepatic impairment, therapy should be initiated at a lower dose and carefully titrated. Upon discontinuation of therapy, full reversal of anticoagulant effects may require longer than 4 hours due to decreased clearance.

The safety and effectiveness of argatroban have not been established in patients under 18 years of age.

Argatroban is in Pregnancy Category B.

ADVERSE EFFECTS: The side effects reported with argatroban include hypotension, fever, diarrhea, ventricular tachycardia, vomiting, bleeding, hemorrhage, dizziness, headache, injection site reactions, nausea, pain, rash, and rebound anginal symptoms. In addition, increases in serum transaminases have been reported.

Table 3: Adverse Events in the Historically Controlled Trials of Argatroban:

Events	Argatroban (n=568)	Controls (n=193)
Major Hemorrhagic Events		
Gastrointestinal	2.3%	1.6%
Genitourinary and hematuria	0.9%	0.5%
Decrease hemoglobin/hematocrit	0.7%	0%
Multisystem hemorrhage and DIC	0.5%	1%
Limb and BKA stump	0.5%	0%
Intracranial hemorrhage	0%	0.5%
Minor Hemorrhagic Events		
Gastrointestinal	14.4%	18.1%
Genitourinary and hematuria	11.6%	0.8%
Decrease hemoglobin/hematocrit	10.4%	0%
Groin	5.4%	3.1%
Hemoptysis	2.9%	0.8%
Brachial	2.4%	0.8%
Non-hemorrhagic Events		
Dyspnea	8.1%	8.8%
Hypotension	7.2%	2.6%
Fever	6.9%	2.1%
Diarrhea	6.2%	1.6%
Sepsis	6%	12.4%
Cardiac arrest	5.8%	3.1%
Nausea	4.8%	0.5%
Ventricular tachycardia	4.8%	3.1%
Pain	4.6%	3.1%
Urinary tract infection	4.6%	5.2%
Vomiting	4.2%	0%
Infection	3.7%	3.6%
Pneumonia	3.3%	9.3%
Atrial fibrillation	3%	11.4%
Coughing	2.8%	1.6%
Abnormal renal function	2.8%	4.7%
Abdominal pain	2.6%	1.6%
Cerebrovascular disorder	2.3%	4.1%

Allergic reactions were reported in 156 patients receiving argatroban in other studies. Approximately 95% of these reactions occurred in patients receiving concomitant streptokinase and/or contrast media.

DRUG INTERACTIONS: Concomitant use of argatroban with antiplatelet agents, thrombolytics, and other anticoagulants may increase the risk of bleeding.

Pharmacokinetic interactions between argatroban and warfarin have not been observed; however, concomitant administration does result in prolongation of the PT and INR (see Monitoring). The combination of argatroban and warfarin does not result in further reduction in vitamin K dependent factor Xa activity than that which is seen with warfarin alone.

MONITORING: The aPTT values must be monitored in all patients. Anticoagulation effects associated with argatroban at doses up to 40 mcg/kg/min are well correlated with the aPTT. The aPTT and ACT are both effective for monitoring argatroban therapy. The aPTT can be used monitor argatroban at levels of 0.04 to 2.5 mcg/mL. The ACT can be used to monitor higher levels of argatroban (1 to 15 mcg/mL) achieved during revascularization procedures.

The aPTT should be monitored daily as well as 2 hours after the start of infusion and 2 hours after each dosage adjustment. The aPTT should be kept within 1.5 to 3 times control. Current laboratory 'normal' aPTT is 20.6-37.7 seconds.

Prothrombin time or INR cannot always be reliably used to monitor warfarin while patients on argatroban are being converted to oral anticoagulant therapy, as argatroban synergistically interferes with the INR. The relationship between INR on co-therapy and warfarin alone is dependent on the dose of argatroban and the thromboplastin reagent used. INR should be measured daily while argatroban and warfarin are coadministered. In general, with argatroban doses up to 2 mcg/kg/min, argatroban can be discontinued when the INR is greater than 4 on combined therapy. After argatroban is discontinued, the INR should be measured in 4 to 6 hours. If the repeat INR is below the desired range, argatroban therapy should be resumed and the procedure repeated daily until the desired therapeutic range with warfarin is achieved. For argatroban doses greater than 2 mcg/kg/min, the dose should be temporarily reduced to a dose of 2 mcg/kg/min and the INR measured 4 to 6 hours later.

No antidote/antagonist presently exists for argatroban; however, its relatively rapid clearance from the plasma nearly eliminates a need for such an agent. At therapeutic levels, anticoagulation parameters usually return to normal within 2 to 4 hours after discontinuation of argatroban, although reversal may take longer in patients with hepatic impairment.

DOSING: Prior to initiating therapy, heparin therapy should be discontinued and a baseline aPTT obtained. The recommended initial dose for adult patients with HIT, and without hepatic impairment, is 2 mcg/kg/min, administered as a continuous infusion. The aPTT should be checked 2 hours after initiation of therapy to confirm the aPTT is within the desired range, and dosage adjustments made as necessary. The dose can be adjusted as clinically indicated, but not to exceed 10 mcg/kg/min, until the steady-state aPTT is 1.5 to 3 times the initial baseline (not to exceed 100 seconds).

For patients with moderate hepatic impairment, an initial dose of 0.5 mcg/kg/min is recommended, based on the approximately 4-fold decrease in argatroban clearance compared to patients with normal hepatic function. The aPTT should be monitored closely and the dosage adjusted as needed.

Some sources have recommended argatroban therapy be tapered rather than abruptly halted when it needs to be discontinued.

CONCLUSION: Argatroban appears to be a useful agent in the treatment of patients with heparin-induced thrombocytopenia, although comparative data with lepirudin and danaparoid are lacking. Its usefulness in the treatment of other conditions will require documentation from controlled clinical trials and will be dependent on the drug's cost and safety. Argatroban may offer a safety advantage over lepirudin, in that it is shorter acting and rapidly eliminated even in patients with renal impairment. In addition, it appears to inhibit thrombin faster; inhibits clot-bound thrombin to a more significant degree than lepirudin. The cost of a single therapy day for an 80 kg patient with normal renal/hepatic function is estimated to be $875 per day (lepirudin) vs $600 per day (argatroban). Argatroban would appear to be an agent that should be added to the LVH Drug formulary for selected use in those patients needing parenteral anticoagulation where heparin products may be deleterious. The Therapeutics Committee recommended that it replace lepirudan given the current information.

Lamisil Rejected

Terbinafine (Lamisil®) cream was not approved to be added to LVH formulary. Instead, an autosub with clotrimazole (Lotrimin®) will be instituted. In studies comparing the two agents, both were equally efficacious against tinea pedis, cruris and corporis due to E.floccosum, T. mentagrophytes or T.rubum, Clotrimazole also showed greater activity against Candida. The dose of clotrimazole will be 1 application twice daily.

Hypersensitivity Protocol

Therapeutics committee approved a hypersensitivity protocol for use throughout the hospital. The protocol originated in the hematology/oncology division for use in these patients and a checkbox was added to the antineoplastic order sheet. The rationale is that the nurses can start to administer medication (specifically diphenhydramine) to the patient while waiting for the physician to call back with further orders.

The protocol is as follows:

1. Stop infusion - page physician immediately
2. NSS 100ml/hr
3. Monitor BP, pulse, SaO_2
4. Give diphenhydramine 50mg IV and have epinephrine 1:1000 available
5. 2L/min O_2 as needed

A check box is being added to all physician order sheets which will be located aside of the check off box stating no allergies. By checking the box, the hypersensitivity protocol will be enacted in case of a hypersensitivity reaction.

Heparin Order sheet

A revised intravenous heparin order sheet has been developed to facilitate use of this important agent. The order sheet will contain the more widely used dosing schemes, but physicians will be able to describe individually tailored regimens for those patients that would benefit from such alterations. The order format incorporates the new therapeutic ranges identified in the LAB LINK. A copy of the two sided form is attached to this newsletter.

HEPARIN ORDER SHEET

DRUG INTOLERANCES: REACTIONS: DRUG ALLERGIES: REACTIONS: NONE KNOWN **Selected Protocols for Treatment and heparin dose adjustments are listed on the reverse side of this form**	

If the patient is a candidate for Low Molecular Weight heparin for the treatment of uncomplicated DVT with or without PE, enoxaparin 1mg/kg q12h SQ or 1.5 mg/kg q24h SQ has been shown to be as equally efficacious and safe as unfractionated heparin. Please initiate the "Outpatient" DVT treatment protocol and use that order set.

Height=	Current laboratory standards for aPTT are listed below: Normal= 21-38 seconds Equivalent therapeutic aPTT range for 0.3- 0.7 units/ml heparin level (based on anti-factor Xa activity)= 68-113 seconds
Weight (kg)=	

1. **Identify reason for use (CHECK ONE): Unstable angina/MI____ Treatment of DVT/PE____**
   Stroke____ Other____

SELECT TREATMENT REGIMEN (CHECK ONE)

2. ___ **Use "Cardiac" dosing protocol (ACC/AHA Model)-*See reverse side of order.***
   ___ **Use Modified Raschke dosing protocol (PE/DVT)-*See reverse side of order.***
   ___ **Use Stroke/TIA dosing protocol.** ***See reverse side of order.***
   ___ **Use specific dosing regimen identified below (Must describe heparin dose modifications and PTT targets on this order sheet below)**
3. Obtain baseline , aPTT, CBC prior to initiating therapy, if not already done in previous 24 hr period. If baseline aPTT elevated, call physician to notify.
4. Obtain patient weight in kg. prior to initiating therapy. Complete weight field
5. **Obtain aPTT 6 hours after each dosing adjustment until targeted aPTT range is achieved. Modify dose as directed by preselected protocol or as directed below. Once targeted aPTT range is achieved, obtain aPTT daily to monitor.**
6. Obtain platelet count every _____ day(s). Call if platelet count <100,000/mm^3
7. If heparin dose is greater than 20 units/kg hr without attaining a targeted aPTT, obtain HEPARIN LEVEL
   Yes____ No____
8. Test all stools for occult blood
9. Make all dosing adjustments as promptly as possible as directed. Round all doses to the nearest 100 units.

Dosing scale must be completed below, if none of the formatted protocols is selected above

Initial heparin bolus: _____ units now.

Immediately follow with infusion of heparin 25,000 units/ 250 mls (100 units/ml) and adjust the infusion rate as follows: **(Only Complete if you checked off 'specific dosing protocol**

PTT value (s) (SECONDS)	Heparin adjustment (s)
IF PTT	
IF PTT	
IF PTT	
IF PTT	
IF PPT	
IF PTT	
IF PTT	

ACC/AHA (Cardiac Protocol) Loading dose of 60 units/kg (maximum bolus 4,000 units), followed by an initial infusion rate of 12 units/kg/hr (maximum 1,000 units/hr. Adjust as indicated below.

Cardiac heparin protocol adjustments

PTT <38	Give 40 unit/kg bolus (maximum 4,000 units):increase heparin infusion rate by 100 units/hr (<80kg) OR 200 units/hr (≥80kg)
PTT 38-55	Give 20 unit/kg bolus; increase heparin infusion rate by 100 units/hr (all weights)
PTT 56-67	Increase heparin infusion by 100 units/hr (all weights)
PTT 68-95	NO CHANGE
PTT 96-125	Decrease heparin infusion rate by 100 units/hr (all weights)
PTT 126-160	Decrease heparin infusion rate by 100 units/hr (<80kg) OR 200 units/hr (≥80kg)
PTT 161-200	Stop heparin for 1 hour. Decrease heparin infusion rate by 200 units/hr (<80kg) 300 units/hr (≥80kg)
PTT≥ 200	CALL PHYSICIAN FOR FURTHER ORDERS

Raschke (DVT/PE protocol) Loading dose of 80 units/kg, followed by an initial infusion rate of 18 units/kg/hr. Target PTT 1.5-2.5 times PTT control. Adjust as indicated below.

Modified Raschke heparin protocol adjustments (PE/DVT)

PTT < 38	80 unit/kg bolus. Increase infusion rate by 4 units/kg/hr
PTT 38-67	40 units/kg bolus. Increase infusion rate by 2 units/kg/hr
PTT 68-113	NO CHANGE
PTT 114-140	Reduce infusion rate by 1units/kg/hr
PTT 141-170	Reduce infusion rate by 2 units/kg/hr
PTT 171-210	Hold heparin for one hour. Reduce infusion rate by 3 units/kg/hr.
PTT≥210	CALL PHYSICIAN FOR FURTHER ORDERS.

Stroke/TIA protocol Loading dose not recommended. Initiate infusion rate at 15 units/kg/hr. Adjust as indicated below

Stroke/TIA heparin protocol adjustments

PTT < 55	Increase infusion rate by 100 units/hr
PTT 55-113	NO CHANGE
PTT 114-150	Decrease infusion rate by 100 units/hr
PTT> 150	Hold heparin for 2 hours. Reduce infusion rate by 200 units/hr

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Medical Staff Progress Notes

Medical Executive Committee

Medical Staff Progress Notes **is published monthly to inform the Medical Staff of Lehigh Valley Hospital and employees of important issues concerning the Medical Staff.**

Articles should be submitted to Janet M. Seifert, Physician Relations, Lehigh Valley Hospital, Cedar Crest & I-78, P.O. Box 689, Allentown, PA 18105-1556, by the 15th of each month. If you have any questions about the newsletter, please call Mrs. Seifert at (610) 402-8590.