LEHIGH VALLEY
HOSPITAL AND
HEALTH NETWORK

PROGRESS NOTES

Medical Staff

Lehigh Valley Hospital ❁ Muhlenberg Hospital Center

April, 1999 ❁ Volume 11, Number 4

In This Issue . . .

From the President

"There is only one duty, only one safe course, and that is to try to be right".
- Sir Winston Churchill

Colleagues:

April is here and with it Springtime. As I sit writing this today the weather is beautiful, and it appears that Spring is really approaching. I hope you've all had a good month of March.

I'm sure that all of you share with me in expressing our deep and heartfelt condolences and sympathy to Ed and Pat Mullin and their family upon the recent death of their daughter, Susan. Susan died suddenly on March 16 after a long battle with cystic fibrosis.

My first Medical Staff meeting as your President on March 8, 1999 was held at the Banko Center on the Muhlenberg Hospital Center campus. The meeting was well attended. In addition to the usual agenda items, Dr. Greg Harper made a presentation about the vision and goals of the John & Dorothy Morgan Cancer Center. This presentation was well received and numerous important questions were addressed to Greg.

John Haney and Dr. Robert Murphy made a presentation at the meeting about compliance related to billing and the Federal Government's initiative to investigate private physicians' office billing practices to detect Medicare fraud and abuse. There are serious implications for all physicians relative to this matter. We all need to be sensitive to these issues and be very careful in our billing

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practices to insure that we are in compliance with Medicare guidelines. A documented process needs to be outlined in each practice office to deal with billing errors and complaints. John Haney and Lehigh Valley Physician Business Services has already provided a seminar to help physicians and their office staffs deal with and understand these issues. This seminar will be repeated in the Fall. Any physicians, office managers, or billing personnel interested in a future seminar should contact Lehigh Valley Physician Business Services at (610) 317-4440.

Dr. John Jaffe, co-chair of the Care Management Council, made a presentation updating the members of the medical staff about the activities of the Care Management Council and plans for the reorganized Care Management Committee. I have asked either John or Bob Laskowski (the other co-chair) to make a report to the Medical Executive Committee each month. I will also ask one of them to make a brief presentation at each of the quarterly General Medical Staff meetings. There are many care management issues which need to be addressed by each of us in our daily practices both in and outside the hospital. How can we provide the highest level of quality care for our patients more efficiently, at a lower cost, and in a shorter length of time? Our nursing colleagues have been particularly stressed over the last few months as the hospital has been extremely busy. Much of the stress they feel is related to the things we ask them to do for our patients. Remember, we need to think about ways in which we can "take work out of the system" every day. Is the result of the lab test or x-ray study which I am ordering really going to change the way I manage this patient? If the answer is "No", don't order the test. Does what I am doing for my patient today require that he or she be in the hospital, or could the patient receive the same care in some other setting which would be less expensive, just as effective, and perhaps even more satisfying for the patient? If inpatient care isn't required, ask the discharge planner to help get the patient into whatever setting seems more appropriate.

Speaking of our nursing colleagues, I'd like to personally thank them for their outstanding service to our patients over the past several months when the hospital has been stressed by high census, bed shortages, and rapid patient turnover. We appreciate your tireless efforts as well as those of the technical, support, and administrative partners in providing high quality, compassionate care to our patients through a very difficult period. As we make our rounds on the hospital floors, we all need to remember to thank our nursing colleagues for their tremendous help. "Thanks again."

On March 10, I chaired a Medical Staff/Administrative exchange session held to address issues related to the operation of the operating rooms at Lehigh Valley Hospital, Cedar Crest & I-78. A large group of interested surgeons attended this meeting and offered a number of excellent suggestions. Drs. Chuck Hoover and Mark Lester, and Mr. Lou Liebhaber (COO), described the plans which are underway to improve the functioning of the operating rooms, answered questions, and listened to suggestions. I believe that this meeting was useful and, hopefully as a result, some immediate actions will be taken to improve the overall efficiency of the functioning of the operating rooms.

I've recently met with Ed Meehan, MPH, Executive Director, and Courtney J. Brown, MPH, Program Officer, from the Dorothy Rider Pool Health Care Trust. The Pool Trust is anxious to provide funding grants for projects which will improve the general health of the Lehigh Valley community. They have asked me to encourage interested members of the Medical Staff who have ideas for interesting proposals to contact Courtney at (610) 770-9346 to discuss their ideas. Administrative help is available to develop grant request proposals. I have asked Ed to come to the June General Medical Staff Meeting to make a presentation about the Pool Trust, and to again remind the Medical Staff that Mr. Pool set aside a great deal of money to fund projects for the improvement of the health of our community. I'm sure that many of us can think of some project which would qualify for this laudable goal and is only in need of adequate funding. The message is that there is funding available; we just need to ask for it.

Remember to appoint someone from your office as your "surrogate" to read your e-mail, if you aren't a regular user of e-mail. Also remember when you round daily on your hospital patients to: **S.A.T. ("Sit, Ask/Answer, and Touch").**

In closing, Winston Churchill advises that the one duty and one course is to try to be right. I can't promise that I will always be right, but I will try, and I will try to do the right thing for our Medical Staff.

David M. Caccese, MD
Medical Staff President

At-Large Members Needed for LVH Medical Executive Committee

The Lehigh Valley Hospital Medical Staff Nominating Committee is soliciting nominations for five at-large seats, one of which should be a representative whose primary clinical practice is based at the Muhlenberg Hospital Center campus. These at-large seats on the Medical Executive Committee will be held for a three-year term beginning July 1, 1999.

Nominations should be submitted in writing to Edward M. Mullin, Jr., MD, Chairman of the Nominating Committee, via the Medical Staff Services Office, Cedar Crest & I-78, or verbally to John W. Hart, Vice President. All nominations must be submitted by Friday, April 30, 1999.

If you have any questions regarding this issue, please contact Dr. Mullin or Mr. Hart at 402-8980.

Washington/AMA Update

The political heat is, once again, being turned up on medicine in Washington. Faced with the prospect of saving Medicare and the Social Security system in a political climate that will not tolerate increasing the burden of taxpayers, the political leadership in our nation's capital is attempting to find ways to generate new dollars. Their strategy is a two-pronged attack on physicians in this country.

1) Cut cost. The simple solution is to pay fewer dollars to those who provide medical care. In 1997, the Health Care Financing Administration (HCFA) adopted new Evaluation and Management (E&M) guidelines. This policy assigned levels of care, and thus reimbursement, to a "counting" system in which an increasing number of systems would be required to be examined and documented to qualify for a higher level of care. Furthermore, physicians whose practices were deemed to be non-compliant with these guidelines would be considered potential guilty of criminal fraud and abuse. The AMA was able to delay institution of these guidelines from the proposed date of July 1, 1998.

HCFA has recently informed the AMA that, although it is willing to work together with the AMA and its CPT Editorial Panel to minimize counting requirements and to otherwise simplify and improve the guidelines, some degree of "counting" is necessary to achieve consistency of Medicare carrier enforcement policies.

HCFA has also emphasized that, in the current environment, prepayment audits would not be discontinued and that review by physicians **only** was not an option that it would consider. They also emphasized that their focus was not on one-level disagreements in coding. The AMA has advocated that, given HCFA's focus on differences of more than one level, the guidelines should not be designed with higher precision than needed by reviewers to fairly assess the level of service provided.

Based on the fact that HCFA would not rule out counting, and after many hours of careful consideration and consultation with leaders of organized medicine, the Board concluded that physicians would be best served if it asked the AMA's CPT Editorial Panel to resume work with HCFA on the E&M documentation guidelines in order to minimize physicians' documentation burden, even though HCFA will not eliminate counting. This participation is premised on the understanding that any resulting documentation guidelines will be HCFA's guidelines.

As it resumes work on the guidelines, the CPT Editorial Panel has been asked to focus on efforts:

- to ensure that any guidelines are as consistent as possible with CPT definitions; and
- to diminish the role of "counting" in any guidelines to the greatest degree possible.

The AMA has continued to work with HCFA and the Federation on other important AMA policies from A-98 in areas such as fraud and abuse, confidentiality, medical review, working with state medical associations to pilot peer review approaches to E&M services, the need to obtain informed consent on release of medical records, and physician education.

The AMA does not expect that any resulting guidelines will be implemented by HCFA before late in 1999 at the earliest. In the meantime, physicians must also keep in mind that HCFA's current policy requires physicians to comply with either the 1995 documentation guidelines or the 1997 version.

2) Increase income. If the Federal Government can't get money from the taxpayers, they are going to try to get it from the doctors. Many of you will recall the penalties paid by large teaching hospitals in Philadelphia to the government related to disputed billing practices. This proved to be such a windfall for the government that it decided to extend this approach to the physicians

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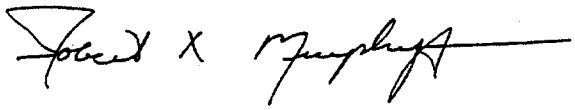
themselves. The Federal Government has, therefore, budgeted $500 million over the next five years for a program which will empower the Office of the Inspector General (OIG) to hire additional inspectors whose sole purpose will be to invade doctors' offices to examine patient and financial records so that deviations from governmental interpretations can be documented and fines assessed. In the few months that this program has existed, fines levied against physician practices have been as high as $500,000 to $1,000,000!

So, I appeal to each and every one of my physician colleagues to begin to prepare for this onslaught. With regard to new E&M guidelines, stand ready to heed any call to action made by the AMA in the months to come. When faced with this new initiative by the OIG, we must be more proactive and prepared. I urge every one of us to establish an office compliance program and make ready for the invasion of the Visigoths.

Perhaps in no other more immediate way can value be seen in being members of our GLVIPA and PHO than in a service which is being offered that can help us meet this onslaught. Mr. John Haney, Executive Director, Lehigh Valley Physician Business Services (LVPBS), is offering, through the MSO, courses and consultation. LVPBS can assist you and your staff in creating a compliance program that ensures the practice's intent and commitment to comply with all Medicare, Medicaid, and managed care rules. Developing a voluntary plan will help avoid prosecution, discourage wrongdoing, and detect problems before they escalate out of control. For more information, please contact Mr. Haney at (610) 317-4441.

Please, be prepared!



Robert X. Murphy, Jr., MD
OMSS Representative
Lehigh Valley Hospital

Rapid HIV Test

Effective March 9, **Rapid HIV Tests** will be utilized when a healthcare worker has a significant occupational exposure to a patient's blood or body fluids. Rapid resulting of both the healthcare worker's and the source patient's HIV status will assist in providing appropriate post-exposure management, which is an important element of workplace safety.

If a source patient is HIV positive, post-exposure prophylaxis (one or more medications) may be helpful in preventing the transmission of the HIV virus to the exposed healthcare worker. The medication should be started within hours of the exposure. In order to take advantage of the rapid testing, **it is crucial that any healthcare worker who experiences a blood or body fluid exposure report the exposure immediately to Employee Health Services during business hours (Monday through Friday, 7:30 a.m. to 4 p.m.). If an exposure occurs evenings or nights, holidays or weekends, the exposed healthcare worker should report directly to the Emergency Department with his/her incident report.**

Please take advantage of this new technology which will result in improved post-exposure management by reporting and responding urgently when you are exposed to blood and/or body fluids.

If you have any questions about the procedure, please call Employee Health Services at 402-8869, page the Employee Health nurse on call via the page operator (402-8999), or call the Needlestick Hotline at 402-STIK.

LOVAR Study News

Pertinent study information, containing inclusion and exclusion criteria, is available to physicians in a quick reference brochure format.

For your own personal copy, please call the LOVAR office at (610) 402-4088.

Physician Assistance Program

The Medical Staff of Lehigh Valley Hospital recognizes that a wide range of problems in life can affect a physician's health and well-being, and, at times, professional performance.

In fact, studies conducted by the National Institute for Occupational Health and Safety report that physicians, along with other caregivers, may have a higher than average risk of developing debilitating personal problems.

Since 1993, the Physician Assistance Program has been available to help members of the Medical Staff deal with personal problems before they affect health, family life, or professional effectiveness.

The Physician Assistance Program is a confidential (and if so desired, anonymous), professional counseling and referral service available to active members of the Medical Staff of Lehigh Valley Hospital and their dependents.

This service is provided through an agreement with Preferred EAP which operates the Lehigh Valley Hospital's Employee Assistance Program (EAP) and has been involved with over 3,000 employees and dependents since 1985.

The Physician Assistance Program offers physicians and their families counseling services for a wide range of personal problems -- anything that can turn stress into distress -- including marital or relationship difficulties; depression and anxiety; alcohol or drug abuse; family problems, or stress from work or personal concerns.

Program users can choose from a multi-disciplinary team assembled to provide Physician Assistance Program services. This team includes:

- ◊ Michael W. Kaufmann, MD, Chairperson, Department of Psychiatry
- ◊ John C. Turoczi, EdD, licensed psychologist and member of the Allied Health Professional Staff of Lehigh Valley Hospital
- ◊ Staff of Preferred EAP including licensed social workers, masters level clinicians, and certified addiction counselors.

To use the Physician Assistance Program during normal working hours, telephone the Preferred EAP office at (610) 433-8550 or 1-800-327-8878, identify yourself ONLY as a member of the Lehigh Valley Hospital's Medical Staff (or a family member), and ask to speak to the Program Manager, Robin Chase. Please note that callers may remain **anonymous**.

Ms. Chase, or the Preferred EAP receptionist, will conduct a brief telephone interview, offer a choice among the above listed provider team members, and advise the caller how to arrange an appointment.

Other professional staff of Preferred EAP are available after hours to respond to emergency situations.

The number of visits will vary with the nature and severity of the problem. Up to five visits with Physician Assistance Program providers are available to active Medical Staff members (and their dependents) at no cost.

If their is a need for further service or treatment, a referral may be made to a private practitioner or community resource, or the user may continue with the original Physician Assistance Program provider on a self-pay basis.

For more information, contact Robin Chase at Preferred EAP at 433-8550, or John W. Hart, Vice President, in Medical Staff Services, at 402-8980, or any member of TROIKA.

A Message from the Eastern Pennsylvania Funeral Directors Association

Due to a changing attitude in today's society, cremation is becoming more prevalent. Both Lehigh and Northampton counties require that the coroner's office be provided with a completed death certificate before cremation can take place. In many cases, when death certificates are not procured immediately, many families incur added expenses for embalming or refrigeration of the deceased.

In order to avoid these added expenses for your patients' families, when at all possible, please complete death certificates in an timely manner. Your cooperation is truly appreciated.

Coming Soon to a TV Near You -- The Health Channel

The Health Channel provides continuing medical education (CME) and continuing education (CE) programming, as well as other health education to the three million healthcare practitioners in the United States.

The Center for Educational Development and Support has arranged for Lehigh Valley Hospital to receive a one-month trial of TiP-TV during the month of April. TiP-TV includes The Health Channel (a 24-hour, 7 day per week, health education channel), Diagnostic Imaging (the original TiP-TV channel for medical imaging professionals), and Focus on Healthcare (covering a wide range of compelling healthcare topics). The programming will be delivered through the hospital's main cable system at Cedar Crest & I-78 and 17th & Chew on Channel 26.

The Health Channel keeps healthcare professionals educated and helps them meet their continuing education requirements. Fulfilling continuing education requirements ensures optimal patient care and keeps healthcare professionals at the forefront of medicine. Look to The Health Channel for up-to-date expert presentations, informed roundtable discussions, and news about medical discoveries, disease management and treatments.

To learn more about The Health Channel, visit their Web site at http://www.healthchannelweb.com.

Renal Enhancement Program

James E. Kintzel, MD, Director, Peritoneal Dialysis, has been the driving force behind the need to provide renal educational programs to the Lehigh Valley community. One such program available to patients who have been newly diagnosed with chronic renal failure is the Renal Enhancement Program.

The Renal Enhancement Program, a two-part program offered free of charge to patients and their families, provides information regarding treatment options, nutrition, lifestyle changes, and ways to cope.

The next two-part program will be held on May 17 and 24, from 6 to 8 p.m., in Conference Room 1B of the John and Dorothy Morgan Cancer Center. Light refreshments will be served.

For more information, please contact Joan Noll in Peritoneal Dialysis at (610) 402-0600.

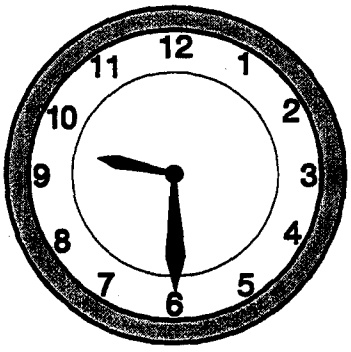
News from Nuclear Medicine at MHC

The Nuclear Medicine Department at Muhlenberg Hospital Center is pleased to announce an exciting new imaging method for detecting acute deep venous thrombosis (DVT).

Acutect (Technetium-99^{m} labeled Apcitide) is a unique, synthetic peptide radiopharmaceutical indicated for scintigraphic imaging of acute venous thrombosis in the lower extremities. This is the first imaging modality to target **acute** DVT. Imaging of the lower extremities is performed both 10 minutes and 60 minutes following intravenous injection of the radiopharmaceutical.

While this technique does not replace ultrasound or venography, it may be helpful in those patients who have indeterminate or equivocal sonographic findings, are technically difficult to scan (e.g., large body habitus), have an overlying cast, or in those cases where determining **acute** (vs. chronic) DVT is of clinical importance.

If you have any questions regarding this issue or have patients who would benefit from this study, please contact Gregg D. Schubach, MD, Director of Nuclear Medicine (MHC), or Dave Steigerwalt, Nuclear Medicine supervisor, at (610) 861-2232.

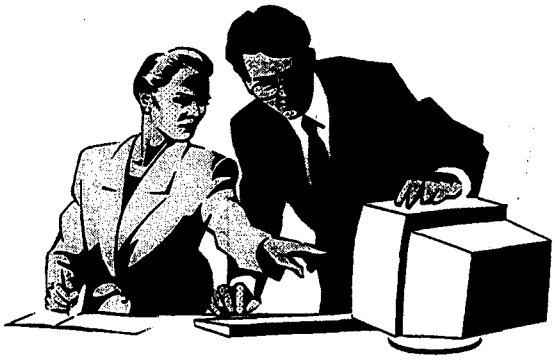


Daylight Savings

Sunday, April 4

Don't forget to turn your clocks ahead!

MHC Phamis Implementation Update



At the end of April, Phamis Lastword will be implemented at Muhlenberg Hospital Center. It will replace the existing Hospital Information System which is not year 2000 compliant.

Patient related information available on-line regardless of the facility where the visit occurred includes:

- Demographics
- Lab results
- Ancillary results (such as Radiology reports)
- Transcriptions (H&Ps, Operative Notes, Discharge Summaries, etc.)
- Allergy and Intolerance information
- Orders
- Medications and IVs

To introduce and prepare physicians for this new system, education sessions have been scheduled as follows:

- Monday, April 26 - 5:45 to 7:15 p.m.
- Tuesday, April 27 - 7 to 8:30 a.m.
- Tuesday, April 27 - Noon to 1:30 p.m.
- Wednesday, April 28 - 7 to 8:30 a.m.
- Wednesday, April 28 - Noon to 1:30 p.m.
- Thursday, April 29 - 5:45 to 7:15 p.m.

All classes will be held in the First Floor Computer Training Room at Muhlenberg Hospital Center. Registration for class is requested. To register, please contact Diane Zapach in Physician Relations at (610) 402-9192.

Affinity's Diabetic Foot and Wound Care Program Receives Generous Donation

Affinity's Diabetic Foot and Wound Care Program, directed by Larry N. Merkle, MD, Chief, Division of Endocrinology/Metabolism, was recently honored to receive a generous donation from an anonymous donor. The donor and her husband were successfully treated at Affinity's wound care program a few years ago, and in fact, provided their first donation to the program at that time. The first donation allowed Affinity to purchase a Gait Analysis System which has been instrumental in the treatment and prevention of foot ulcers. The most recent donation will be used in many ways to further enhance the five year old program, including: a computer/data collection system for measurement of outcomes, a Tekscan F-socket to enhance care for b/k amputees via the computerized gait analysis system, an indigent care fund for those without insurance, and some equipment upgrades.

The Diabetic Foot and Wound Care Program provides a multi-disciplinary team approach to wound care. This team includes endocrinologists, podiatrists, pedorthists, orthatists, nurse patient educators, and various physical therapists and physical therapy assistants. The success of this program and the wonderful treatment the patients receive is a direct result of the expertise of Affinity's team.

Affinity's Diabetic Foot and Wound Care Clinic is held on Mondays from 2 to 5 p.m. at Affinity, 1243 S. Cedar Crest Blvd., First Floor. For more information, please call Affinity at 402-9292.

Congratulations!

James T. McNelis, DO, Division of General Internal Medicine/Geriatrics, was recently elected a Fellow of the American College of Physicians.

Craig J. Sobolewski, MD, Division of Primary Obstetrics and Gynecology, was recently notified that he has fulfilled all necessary requirements and is now a certified Diplomate of the American Board of Obstetrics and Gynecology.

Papers, Publications and Presentations

George A. Arangio, MD, Associate Chief, Division of Orthopedic Surgery (LVH), co-authored the paper, "Mathematical modeling of support distribution under the foot," which was published in ***Journal of the Pennsylvania Academy of Science***.

Scott Beman, MD, general surgery resident, presented a poster on "Higher cyclosporine levels decrease kidney rejection episodes without increasing nephrotoxicity" at the Eastern Pennsylvania Chapter of the American College of Surgeons meeting. Co-authors include **Craig R. Reckard, MD**, Chief, Section of Transplantation Surgery; **Douglas E. Johnson, MD**, Division of Nephrology; and **Thomas E. Wasser, PhD**, Director of Health Studies.

K. Lesley Birmingham, MD, Chief Resident in Plastic Surgery, presented her paper on "Patterns of pediatric facial trauma in motor vehicle collisions" at the Joint Scientific Meeting on Plastic Surgery in London. Co-authors include **Robert X. Murphy, Jr., MD**, and **Walter J. Okunski, MD**, of the Division of Plastic and Reconstructive Surgery; and **Thomas E. Wasser, PhD**. Dr. Birmingham presented the paper as a poster at the Pennsylvania Committee on Trauma Residents' Trauma Paper Competition.

Mehrzad Bozorgnia, MD, general surgery resident, presented his paper, "Infrainguinal bypass in patients with end-stage renal disease: Survival and ambulation," at the Surgical Forum of the American College of Surgeons Fall meeting. Co-authors of the paper include **Gary G. Nicholas, MD**, Chief, Division of Vascular Surgery and Program Director of the General Surgery Residency, **Susan A. Nastasee**, Surgical Editor, and **James F. Reed III, PhD**, Department of Community Health. Dr. Bozorgnia also presented a poster of the paper at the Eastern Pennsylvania Chapter of the American College of Surgeons meeting.

Mark D. Cipolle, MD, PhD, Chief, Section of Trauma Research and Associate Chief, Division of Trauma-Surgical Critical Care, presented the poster, "Soluble endothelial cell adhesion molecules in patients with septic shock," at the Association for Academic Surgery. Co-authors include **Kathy Gottlund**, Biological Therapy Lab, **Leslie Baga**, Trauma Program Development, and **Michael D. Pasquale, MD**, Chief, Division of Trauma-Surgical Critical Care. Dr. Cipolle also presented a poster on "Long-term follow-up in trauma patients with vena cava filter" at the American Association for the Surgery of Trauma. His co-authors include **Ivy Fearen**, Trauma Program Development, and **Dr. Pasquale**.

E. James Frick, Jr., MD, Chief Surgical Resident; **Linda L. Lapos, MD**, Division of Colon and Rectal Surgery; and **H. David Vargas, MD**, former member of the Division of Colon and Rectal Surgery, co-authored the paper, "Solitary neurofibroma of the anal canal," which will be published in ***Diseases of the Colon & Rectum.***

In addition, Dr. Frick, along with **Michael D. Pasquale, MD**, and **Mark D. Cipolle, MD, PhD**, co-authored the paper, "Small bowel and mesentery injuries in blunt trauma," which was accepted for publication in the ***Journal of Trauma***. Dr. Frick presented the paper as a poster at the annual meeting of the Society of Critical Care Medicine.

Dr. Frick also presented "Somatostatinoma of the ampulla of Vater in celiac sprue" as a poster at the 1999 Americas Hepato-Pancreato-Biliary Congress. **Herbert C. Hoover, Jr., MD**, Chairperson, Department of Surgery, was co-author.

Patrick Gonzalez, Jr., MD, resident in surgical critical care, presented his paper, "Reduction of catheter-associated central line sepsis in a burn unit: A new method of catheter care," at the Eastern Pennsylvania Chapter of the American College of Surgeons meeting and the Pennsylvania Committee on Trauma Residents' Trauma Paper Competition. Co-authors include **Minh Ly T. Nguyen, MD**, Division of Infectious Diseases, **Bernadette Kratzer, RN**, and **Terry Burger, RN**, Infection Control Department, **Elaine Walz, RN**, Cancer Program, and **Kevin J. Farrell, MD**, Chief, Section of Burn. Dr. Gonzalez also presented the paper as a poster at the meeting of the Society of Critical Care Medicine.

In addition, Dr. Gonzalez presented a poster on "Violent firearm injuries: A pleas for prevention" at the Pennsylvania Committee on Trauma Residents' Trauma Paper Competition. Co-authors include **Michael D. Pasquale, MD, Mark D. Cipolle, MD, PhD**, and **Judith M. Schultz**, Trauma Development.

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Tito Gorski, MD, former colon and rectal surgery resident; **Lester Rosen, MD**, Associate Chief, Division of Colon and Rectal Surgery; **Robert D. Riether, MD**, Director, Colon and Rectal Residency Program; **John J. Stasik, MD**, Chief, Division of Colon and Rectal Surgery, and **Indru T. Khubchandani, MD**, Division of Colon and Rectal Surgery, co-authored the paper, "Colorectal cancer after surveillance colonoscopy: False negative exam or fast growth?", which will be published in ***Diseases of the Colon & Rectum***.

In addition, Dr. Gorski and Dr. Rosen, along with **Susan Lawrence** and **Douglas Helfrich** of the Department of Care Management Systems, and **James F. Reed III, PhD**, Department of Community Health, co-authored the paper, "Usefulness of a state-legislated, comparative database to evaluate quality in colorectal surgery," which will be published in ***Diseases of the Colon & Rectum***.

Dr. Gorski and Dr. Khubchandani also co-authored the paper, "Retrorectal carcinoid tumor," which will be published in ***Southern Medical Journal***.

"Adverse Effects of Outpatient Parenteral Antibiotic Therapy," an article authored by **Margaret L. Hoffman-Terry, MD**, Division of Infectious Diseases, was published in the January 1999 issue of the ***American Journal of Medicine***.

Herbert C. Hoover, Jr., MD, Chairperson, Department of Surgery, co-authored the paper "Radioimmunoscintigraphy of recurrent, metastatic, or occult colorectal cancer with technetium Tc 99m 88BV59H21-2V67-66 (HumaSPECT®-Tc), a totally human monoclonal antibody," which was published in ***Diseases of the Colon & Rectum***.

Peter A. Keblish, Jr., MD, Chief, Division of Orthopedic Surgery, was the moderator of a two-day Advanced Learning Center on Mobile Bearing Total Knee Arthroplasty, which was held in conjunction with the American Academy of Orthopaedic Surgeons meeting held in Anaheim, Calif. Dr. Keblish also presented several papers on topics of primary and revision total knee arthroplasty.

In addition, Dr. Keblish authored an article, "The Artificial Hip," which was published is ***Doctor's Forum***. The article is directed primarily at the general public to enhance their understanding of total hip replacement.

Michael T. Kennedy, MD, and **Randolph Wojcik, MD**, general surgery residents; **Mark D. Cipolle, MD, PhD**, **James G. Cushman, MD**, Chief, Section of Pediatric Trauma, and **Michael D. Pasquale, MD**, co-authored the paper, "Incorporation of focused assessment for the sonographic examination of the trauma patient (FAST) into an algorithm for evaluation of blunt abdominal trauma: A prospective study," which was presented at several regional and national meetings, including a poster presentation at the Society of Critical Care Medicine, and an oral presentation at the Eastern Pennsylvania Chapter of the American College of Surgeons meeting. Dr. Kennedy won an educational scholarship award for his presentation at the Society of Critical Care Medicine. In addition, Dr. Kennedy presented the paper at the Pennsylvania Committee on Trauma Residents' Trauma Paper competition and the Region III American College of Surgeons Committee on Trauma Residents' Trauma Paper Competition where he won first place for both presentations.

Daniel M. Morrison, MD, surgical resident; **Michael D. Pasquale MD**, Chief, Division of Trauma-Surgical Critical Care; and **Charles J. Scagliotti, MD**, Division of General Surgery/Trauma-Surgical Critical Care, co-authored the paper, "Hydrostatic rectal injury of a jet ski passenger: Case report and discussion," which was published in the ***Journal of Trauma***.

W. Michael Morrissey, Jr., DMD, MD, plastic surgery resident, presented his paper, "The increase in TRAM flap survival after delay does not diminish long-term," at the Eastern Pennsylvania Chapter of the American College of Surgeons meeting. **Geoffrey G. Hallock, MD**, Associate Chief, Division of Plastic and Reconstructive Surgery (LVH), was co-author.

Michael D. Pasquale, MD, Chief, Division of Trauma-Surgical Critical Care, presented his paper, "Decreased resource utilization, length of stay, and costs using a trauma operations improvement team," at the Society of Critical Care Medicine meeting. Co-authors include **James G. Cushman, MD**, and **Kevin E. Glancy, MD**, Division of Trauma-Surgical Critical Care/General Surgery; **Mary Jean Osborne**, Director, Open Heart Unit and Transitional Open Heart Unit; **Juliet Fischer**, Trauma Coordinator; **Betsy Seislove**, Patient Care Specialist; and **Judith M. Schultz**, Trauma Development. Dr. Pasquale also presented a poster, "Should routine helmet use be required for recreational skiers?" at the Society of Critical Care Medicine meeting.

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In addition, Dr. Pasquale presented his paper, "Outcome analysis of Level I and Level II trauma centers," at the American Association for the Surgery of Trauma. Co-authors include Andrew Peitzman, MD, of the University of Pittsburgh, and **Thomas E. Wasser, PhD**, Director of Health Studies. The paper has been submitted to the ***Journal of Trauma***.

Rovinder "Bob" Sandhu, MD, general surgery resident, presented a poster on "Measurement of endotracheal tube cuff leak to predict post-extubation stridor and need for reintubation" at the Eastern Pennsylvania Chapter of the American College of Surgeons meeting and the meeting of the Society of Critical Care Medicine. Co-authors include **Michael D. Pasquale, MD, Kenneth Miller**, Respiratory Therapist, and **Thomas E. Wasser, PhD**.

Upcoming Seminars, Conferences and Meetings

Emergency Medicine Grand Rounds

Grand Rounds, sponsored by the Department of Emergency Medicine, will be held on Thursday, April 1, from 9 a.m. to 1 p.m., in the Emergency Medicine Institute, 1251 S. Cedar Crest Blvd., Suite 308C.

Topics to be discussed include:

- Carbon Monoxide and Cyanide Poisoning - Gary Bonfante, DO
- Pediatric Abdominal Pain - Ronald A. Lutz, Sr., MD

For more information, please contact Judy Szep in the Department of Emergency Medicine at 402-7168.

Medical Grand Rounds

Medical Grand Rounds are held every Tuesday beginning at noon in Lehigh Valley Hospital's Auditorium at Cedar Crest & I-78.

Topics to be discussed in April include:

- April 6 - Ventricular Tachycardia - What's New?
- April 13 - Update on Staphylococcal Disease
- April 20 - Benefits & Toxicity of Non-Steroidals with an Evaluation of the Safety of the new COX II Inhibitors
- April 27 - Medical Ethics are Unethical Public Policy

For more information, please contact Evalene Patten in the Department of Medicine at 402-1649.

Department of Pediatrics

The Department of Pediatrics conferences are held on Fridays beginning at noon in Lehigh Valley Hospital's Auditorium at 17th & Chew.

Topics to be discussed in April include:

- April 23 - Syncope in Adolescents

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

"Respiratory and Neurological Challenges for Today's Children: From Hospital to Home," a two-day conference sponsored by the Department of Pediatrics, will be held April 7 and 8, from 8 a.m. to 4:2[illegible] p.m. both days, in the Lehigh Valley Hospital Auditori[illegible] at Cedar Crest & I-78.

The conference is designed for physicians, nurses, nurse practitioners, and other healthcare providers who participate in the planning, implementation, evaluation, and revision of patient care for children with acute and chronic respiratory and/or neurological illness.

For more information, please contact Kelly Beauchamps in the Center for Education at 402-1700.

Stahler-Rex Health Care Lecture

Richard Lamm, former Governor of Colorado, will be the featured speaker at this year's Stahler-Rex Health Care Lecture scheduled for Tuesday, April 27, beginning at 7 a.m., in the Auditorium at Lehigh Valley Hospital, Cedar Crest & I-78. His topic will be "The Brave New World of Health Care."

Who's New

The Who's New section of ***Medical Staff Progress Notes*** contains an update of new appointments, address changes, status changes, etc. Please remember to update your directory and rolodexes with this information.

Medical Staff

Appointments

Andrea B. Gonzalez-Torrado, MD
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Provisional Active

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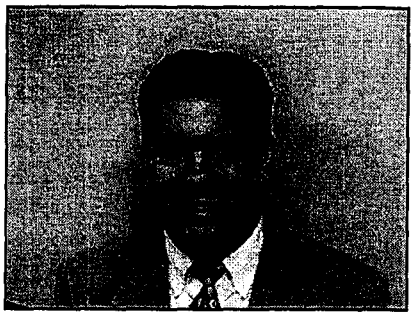

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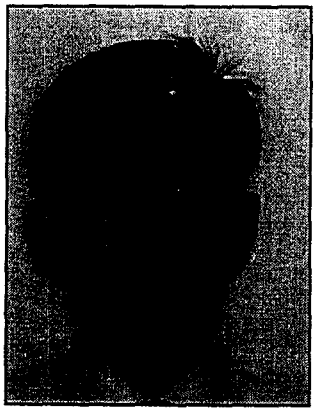

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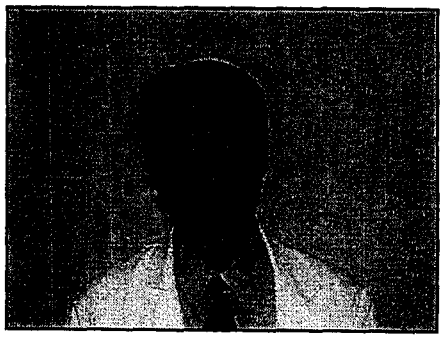

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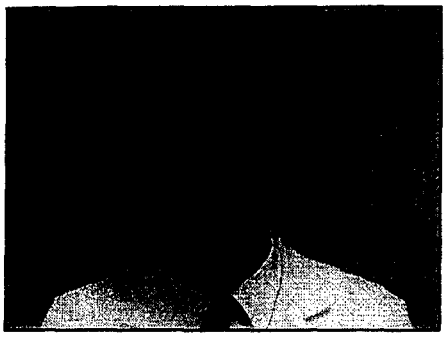

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Division of Primary Obstetrics and Gynecology
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Practice Changes

Martin LeBoutillier III, MD
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Address Changes

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New Fax Number

Primary Care Associates in the LV, PC
- Shawn R. Ruth, DO
- David M. Stein, DO
New Fax: (610) 776-6344

Status Changes

Frank J. Altomare, Jr., MD
Department of Radiology/Diagnostic Medical Imaging
Division of Nuclear Medicine
From Active to Emeritus Active

Matthew A. Kasprenski, Sr., MD
Department of Family Practice
From Affiliate to Emeritus Affiliate

E. Brian Petrasek, MD
Department of Family Practice
From Provisional Active to Provisional Affiliate

John F. Pifer, DO
Department of Family Practice
From Affiliate to Emeritus Affiliate

Christopher Stella, MD
From: Department of Medicine
Section: House
Category: Active
To: Department of Emergency Medicine
Division of Emergency Medicine
Category: Limited Duty

Resignation

William E. Tucker, MD
Department of Emergency Medicine
Division of Emergency Medicine
Provisional Active

Allied Health Professionals

Appointments

Dena L. Capobianco, PA
Physician Extender
Physician Assistant - PA
(Gastroenterology Associates Ltd. - Michael H. Ufberg, MD)

Alice Gallagher, CRNP
Physician Extender
Professional - CRNP
(John J. Cassel, MD, PC - John J. Cassel, MD)

Karen A. Moffat, RN
Physician Extender
Professional - RN
(Yeisley Cardiothoracic Surgery, LLC - Geary L. Yeisley, MD)

Anthony J. Pack, PA-C
Physician Extender
Physician Assistant - PA-C
(The Heart Care Group, PC - Theodore G. Phillips, MD)

Donna F. Petrucelli, CRNP
Physician Extender
Professional - CRNP
(The Heart Care Group, PC - James A. Sandberg, MD)

Doris M. Vasko
Physician Extender
Technical - Medical Assistant
(ABC Family Pediatricians - Donald L. Levick, MD)

Changes of Supervising Physician

David A. Cederberg
Physician Extender
Technical - Surgical Technician
From: Antonio C. Panebianco, MD - Panebianco-Yip Heart Surgeons and Geary L. Yeisley, MD - Yeisley Cardiothoracic Surgery, LLC
To: Geary L. Yeisley, MD - Yeisley Cardiothoracic Surgery, LLC

Lee E. Speed, PA-C
Physician Extender
Physician Assistant - PA-C
From: Theodore G. Phillips, MD
To: Michael C. Sinclair, MD - The Heart Care Group, PC

George M. Walton, PA-C
Physician Extender
Physician Assistant - PA-C
From: Antonio C. Panebianco, MD - Panebianco-Yip Heart Surgeons
To: Michael C. Sinclair, MD - The Heart Care Group, PC

Resignations

Barbara M. Enger, RN
Physician Extender
Professional - RN
(David L. Schwendeman, MD)

Claudette M. Geist
Physician Extender
Technical - Surgical Technician
(Lehigh Eye Specialists, PC - Masayuki Kazahaya, MD)

THERAPEUTICS AT A GLANCE

The following actions were taken at the January/February 1999 Therapeutics Committee Meeting - Rebecca Hockman, Pharm.D., BCPS, Christopher Moore, R.Ph., Joseph Ottinger, R.Ph., MS, MBA

ENOXPARIN FOR UNSTABLE ANGINA

Two recent trials (ESSENCE AND TIMI 11b) involving enoxaparin and aspirin vs UFH (unfractionated heparin) and aspirin in the treatment of unstable angina were presented at the February Therapeutics Committee meeting. Both studies appeared to support the use of the LMWH (low molecular weight heparin) product arm. Their was a statistically significant relative risk reduction (RRR) in the respective triple end points of both studies (death, MI, and recurrent angina in ESSENCE; death, MI, and the need for urgent revascularization in TIMI 11b) in comparison with the UFH arm.

However, there was some concern about aspects of the two studies and their analysis that should be noted. The importance of adequate anticoagulation has been recognized in studies of agents touted as replacements for UFH. The use of empirical dosing of IV UFH has been shown to produce inadequate levels of anticoagulation. The empirical dosing protocol used in the ESSENCE trials resulted in less than half of the patients treated with UFH achieving an aPTT in the target range by 24 hours. Certainly this may have biased the results in favor of enoxaparin. Secondly, the importance of achieving a single targeted aPTT has been frequently questioned. This may be related to the need for each institution with different equipment, personnel and thromboplastin reagents for aPTT tests to establish its own UFH sensitivity curve. The guidelines of the American College of Chest Physicians currently recommend that the goal for UFH therapy should correspond to a blood concentration of 0.2-0.4 units/ml. Therefore, as with warfarin monitoring prior to use of the INR, therapeutic heparin monitoring via the use of aPTT can be deceiving. Both the ESSENCE and TIMI 11b trials utilized multiple institutions (176 and 200, respectively) and were carried out in 10 countries. One must at least consider that so many disparate institutions did not have identical sensitivity curves which could have affected the observed outcomes. Finally, although the triple end points were statistically significant, the individual end points of death, MI and revascularization/ recurrent angina did not achieve statistical significance in the ESSENCE trial. The highest positively correlated data involved recurrent angina. Death and MI trended toward the LMWH treatment arm, but were not statistically significant. Recently, the Fifth ACCP Consensus Conference on Antithrombotic Therapy gave the use of LMWH for unstable angina an A2 recommendation (Methods strong, results consistent, effect equivocal-uncertainty whether benefits outweigh the risks).

Currently, a bag of unfractionated heparin costs $2.85 each, while an aPTT test costs @$3.50 each. The daily drug acquisition cost for enoxaparin in a 70 kg individual would be $62.00 at the recommended dose of 1mg/kg every 12 hours. The average treatment duration was a little less than 3 days in the ESSENCE trial with a range of 2-8 days. Treatment with aspirin was continued in all the studies after the LMWH was stopped.

EMESIS NEMESIS

Dolasetron injectable (Anzemet) is indicated for the prevention and treatment of postoperative nausea and vomiting. At higher doses this agent can also be utilized to prevent nausea and vomiting associated with initial and repeated courses of moderately emetogenic chemotherapy. However, a review of this indicated use was not pursued at this time.

Dolasetron is a potent, selective and reversible 5-HT3 receptor antagonist. Its clinical activity appears to be due to its reduced metabolite, hydrodolasetron, which is 50 to 100 times more potent than dolasetron.

For the prevention of postoperative nausea and vomiting, the recommended adult intravenous dose is 12.5 mg given as a single dose approximately 15 minutes before the cessation of anesthesia. The same dose may be administered for the treatment of post-operative nausea and vomiting, administered as soon as nausea or vomiting occurs. In pediatric patients, 2 to 16 years of age, the recommended intravenous dose is 0.35 mg/kg, up to a maximum dose of 12.5 mg, given as a single dose approximately 15 minutes before the cessation of anesthesia or as soon as nausea or vomiting occurs.

CONCLUSION: Dolasetron offers an alternative to ondansetron (Zofran) and granisetron (Kytril) in the prevention of nausea and vomiting, although no advantages over these agents have been demonstrated. Dolasetron appears as effective as these agents, with a similar side effect profile. The ECG changes noted with dolasetron are a class effect, but appear to be more pronounced with dolasetron. These effects are generally seen at higher doses and the overall clinical implications are unclear. The perceived equivalent doses of ondansetron and dolasetron are 4mg and 12.5mg, respectively for PONV. Currently, the cost difference for the aforementioned doses of ondansetron ($ 17.10) and dolasetron ($ 10.20) is fairly substantial. Cost is likely to continue to be a major factor in the selection of a 5-HT3 receptor antagonist for formulary inclusion as all three available agents appear to be effective at "equivalent doses". The Anesthesia subcommittee has trialed dolasetron in selected patients using a 12.5mg dose given about 15 minutes prior to the end of the procedure. This dose and agent have been included in the adult Post-Operative Antiemetic Prophylaxis/Treatment algorithm. Therefore, the recommendation was to approve this agent to the Formulary for use in the adult PONV algorithm or as a single 12.5 mg "rescue" dose . Use of this agent in the prevention and treatment of chemotherapy induced nausea and vomiting will be reviewed at a future time.

ANOTHER 'CAINE' ADDED TO THE FORMULARY

Ropivacaine (Naropin) is indicated for production of local anesthesia or regional anesthesia for surgery, postoperative pain management and obstetrical procedures. In surgical anesthesia, it is indicated for epidural block for surgery including cesarean section, major nerve block and local infiltration. In acute pain management, it is indicated for use as an epidural continuous infusion or intermittent bolus (e.g., postoperative pain or labor) and local infiltration.

Ropivacaine is an amide-type local anesthetic and an analog of bupivacaine and mepivacaine (see Table 1). It is used

in water-soluble form as the hydrochloride monohydrate salt. Ropivacaine is less lipid-soluble than bupivacaine. Unlike bupivacaine and mepivacaine which are available as racemates, ropivacaine is available only as the S-isomer. It appears that the S-isomers of these local anesthetics are responsible for greater anesthetic activity, while the R-isomers are responsible for greater toxicity. By providing ropivacaine as only the S-isomer, it is thought that it will provide greater local anesthetic potency and less local anesthetic toxicity than the racemic mixture.

Table 1: Structural classification of local anesthetics:

Anesthetic	Amide	Ester
Bupivacaine	X	
Chloroprocaine		X
Etidocaine	X	
Lidocaine	X	
Mepivacaine	X	
Prilocaine	X	
Procaine		X
Ropivacaine	X	
Tetracaine		X

Ropivacaine has been less toxic than bupivacaine in animal studies. The ratio between lethal and convulsive doses is higher with ropivacaine than with bupivacaine, and ropivacaine is less potent than bupivacaine at inducing cardiac arrhythmias. After intravenous administration to volunteers, ropivacaine produced less central nervous system and cardiovascular toxicity than bupivacaine. Although less toxic than bupivacaine, ropivacaine is more toxic than lidocaine.

Epidural administration of 0.5%, 0.75% and 1% ropivacaine produced similar durations of sensory and motor blockade in one study, while in another study epidural ropivacaine 0.75% and 1% demonstrated a longer duration of analgesia and more rapid onset of motor blockade than the 0.5% concentration. All three doses produced effective sensory blockade, and maximal muscle weakness occurred 1 to 1.5 hours after administration; however, at the higher dose the intensity and duration of motor blockade increased. The duration of analgesia for 0.5% ropivacaine has been estimated to be between those of 2% mepivacaine with epinephrine and 0.5% bupivacaine with epinephrine, while the duration of analgesia for 0.75% ropivacaine is comparable to that of 0.5% bupivacaine with epinephrine.

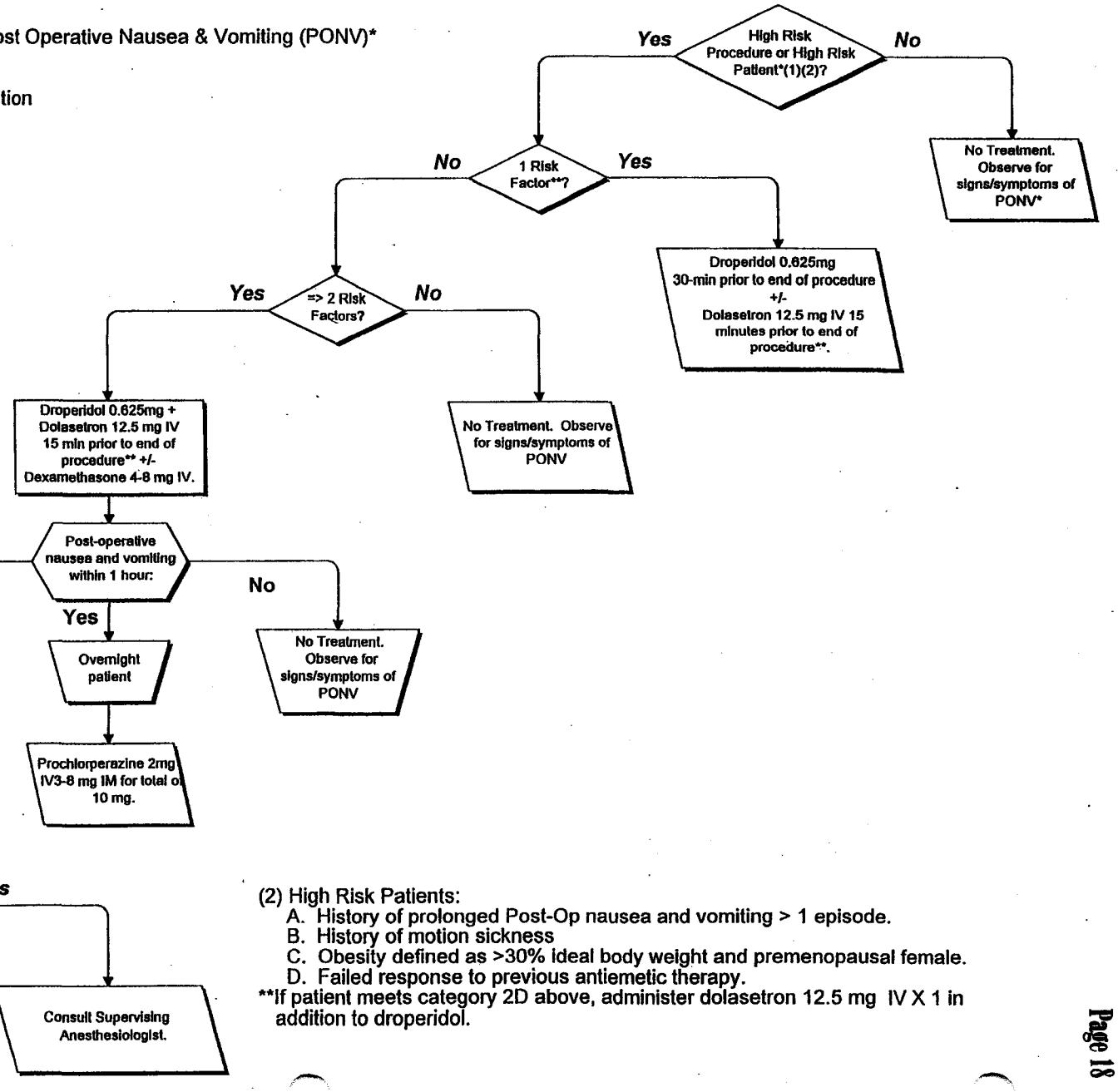
CONCLUSION: Ropivacaine appears to be an effective local anesthetic with efficacy comparable to bupivacaine. At equivalent doses, ropivacaine appears to produce comparable analgesia with less motor block than bupivacaine. This can be advantageous in labor analgesia and postoperative analgesia where a loss of motor function is not desired. It has been suggested that it may provide a safer side effect profile than bupivicaine, especially related to cardiotoxic effects. However, additional large comparative studies are needed to determine whether the difference is significant. Currently, the cost of an equimilligram dose of ropivacaine is twice that of bupivacaine. The Chiefs of Anesthesia at the MHC, 17th St. and CC sites are expected to utilize this agent in selected scenarios.

ADULT PONV GUIDELINES APPROVED

The Anesthesia sub-committee put the finishing touches on an Adult Post-Operative Antiemetic Prophylaxis/ Treatment algorithm. The final version is attached.

ADULT POST-OPERATIVE ANTIEMETIC PROPHYLAXIS/TREATMENT GUIDELINES

Recommendations to minimize risk factors for Post Operative Nausea & Vomiting (PONV)*
-Consider anxiolytics
-Limit opioids, no nitrous oxide
-Minimize mask ventilation or pharyngeal stimulation
-Adequate pain control
-Adequate hydration



(1) High Risk Procedure
A. Gynecological: Laproscopic, D&C/E
B. Eye (Except cataracts under MAC)
C. ENT: T&A, UPPP, Middle ear surgery
D. Mastectomy (Reconstruction)
E. Total Knee Replacement
F. General Surgery; Laparoscopic procedures
G. Plastic Surgery: Facelifts

(2) High Risk Patients:
A. History of prolonged Post-Op nausea and vomiting > 1 episode.
B. History of motion sickness
C. Obesity defined as >30% ideal body weight and premenopausal female.
D. Failed response to previous antiemetic therapy.

**If patient meets category 2D above, administer dolasetron 12.5 mg IV X 1 in addition to droperidol.

REMINDERS FOR PRE-OP VANCOMYCIN

LVH healthcare professionals continuously work together to limit the spread of vancomycin resistant enterococci (VRE). Assisting with the appropriate use of vancomycin is one method by which the occurrence of VRE may be limited. Communication with healthcare workers, and review of miscellaneous patients charts reveal several issues in need of clarification with respect to LVH pre-op vancomycin use. Please find these issues and suggestions/clarifications for helping to solve the issues listed below.

- Alterations in infusion durations - In order to allow for adequate infusion time, vancomycin infusions must be initiated on the floor prior to sending the patient to the OR. This recommendation is part of the LVH policy for the administration of surgical antibiotic prophylaxis.

- Documentation - *It is extremely important to document drug allergies and reaction symptoms in the patients history and on all order sheets*. Please remember to question patients about the allergic symptoms that they experience when given the drug to which they have allergies. If available, this information may be used to limit the number of instances where vancomycin is the drug therapy selection. It is very important that this information be transferred to all order sheets, in addition to placement in the patient history.

- Hypersensitivity definition on pre-op order sheets, Rationale and clarification - Many pre-op orders at LVH have cefazolin as the surgical antibiotic of choice. Patients may have a variety of allergic symptoms to penicillins, and these may be potentially cross-reactive to cephalosporins. Additionally, many patients may have allergies to penicillins, but tolerate cephalosporins without reaction. The hypersensitivity definition on the LVH pre-op order sheets is there to assist in identifying patients that are the most appropriate candidates for pre-op vancomycin use. The CDC discourages the use of pre-op vancomycin for "...Routine surgical prophylaxis other than in a patient who has a life-threatening reaction to beta-lactam antibiotics." (MMWR. 1994;44,RR-12:4.). LVH pre-op order sheets suggest that vancomycin use be limited to patients that meet the following definitions:

a) "If allergic to Penicillin/ Cephalosporin described as hives and/or respiratory distress and/or collapse within minutes of a dosage of penicillin or cephalosporin."
b) Patients with unobtainable histories for drug allergies or reactions

Thank you for reviewing these issues and suggestions for practice improvement. Thank you for continuing to work together to limit the spread of VRE. Please call the pharmacy at x8884 or x8886 for questions regarding pre-op vancomycin use.

HEPARIN INDUCED THROMBOCYTOPENIA DRUG THERAPY OPTIONS AT LVH

The Therapeutics Committee approved the formulary addition of two agents for the management of Heparin Induced Thrombocytopenia (HIT), to prevent further thromboembolic complications (TEC)- **Danaparoid** (Orgáran ®, manufactured by Organon), and **Lepirudin** (Refludan ®, r DNA, manufactured by Hoechst Marion Roussel). Currently, the LVH Therapeutics Committee is restricting these agents to use only by Hematology/

Oncology physicians. Future alterations to this restriction will be reported in subsequent newsletters. This report provides brief drug reviews for danaparoid and lepirudin.

Danaparoid is pharmacologically classified as a low molecular weight heparinoid, and is a glycosamino-glycuronan composed of heparan sulfate (84%), dermatan sulfate (12%) and chondroitin sulfate (4%). In the US danaparoid is FDA indicated only for DVT prophylaxis following elective hip replacement surgery, but danaparoid has been used extensively in HIT management in a Worldwide Compassionate Use case series (Magnani HN. Platelets 1997;8:74-81.). Danaparoid's primary anticoagulant mechanism includes action as a catalyst inactivating factor Xa. Subsequently, the anti-Xa effects inhibit thrombin formation, and inhibit fibrin and thrombus generation. This occurs with only minor effects on platelet function and aggregability.

The activity of danaparoid is measured by anti-Xa levels. Maximal anti-Xa activity occurs in 2-5 hours, but the half life ($T_{1/2}$) for anti-Xa effects ranges from 19.2-24.5 hours in normal renal function. Renal elimination accounts for 40-50% of drug elimination, and the method of elimination for the remainder of drug is unknown. Anti-Xa level monitoring is not needed for all patients, but is required in the following patient populations --> < 55kg; > 90kg; renal or hepatic failure; hemodialysis, hemofiltration. Additional laboratory testing for danaparoid may include checking for potential cross-reactivity to HIT antibodies. Danaparoid may have cross-reactivity with HIT antibodies ranging from 0-20%. Clinical experience to date indicates that danaparoid therapy may be initiated safely before cross- reactivity testing is done.

The Worldwide Compassionate Use non-blinded case series, reporting 584 evaluable episodes with 462 TEC, represents the only published clinical data for the use of danaparoid in HIT therapy. (Magnani HN. Platelets 1997;8:74-81.) In this case series successful outcome was defined as: platelet recovery, controlled (TEC), no new TEC, and no treatment with-drawal. Platelet recovery occurred in 91%, and successful treatment in 93%, while 9 patients (1.7%) had recurrent TEC during danaparoid therapy. The authors report only serious adverse effects from the case series which included bleeding (3.1%, only life threatening bleeds reported), persistent reduced platelet count (2.6%), and skin rash (0.9%). The overall six week mortality was 17.1%.

There are several dosing regimens for danaparoid, depending on the rationale for anticoagulation; age of the thrombus; and renal status. For specific dosing information, please contact the clinical pharmacy office (x8884), or refer to the citation - Wilde MI, Markham A. Drugs 1997;54:903-924. Please see table below for advantages, disadvantages, and cost comparison to Lepirudin.

The second HIT agent added to the LVH formulary, **Lepirudin,** is recombinant hirudin, modeled from the natural product-leech *Hirudo medicinalis*. The only US product FDA approved for use in HIT, Lepirudin carries the FDA Indication for: *Anticoagulation in patients with HIT & associated thromboembolic disease to prevent further TEC*. Pharmacologically lepirudin is classified as a direct thrombin inhibitor. The drug acts via 1:1 binding with thrombin to inhibit thrombogenic activity. This activity occurs unrelated to

antithrombin lll, and without neutralization by platelet factor 4. This drug alters all thrombin dependent coagulation assays, and exhibits dose dependent increases in aPTT. As a result, therapy is monitored using aPTT. The aPTT ratio goal during lepirudin therapy is 1.5-2.5 x control.

Lepirudin acts rapidly, with a terminal half life of 1.3 hours. The primary route of elimination is renal. The $T_{1/2}$ in renal impairment may be increased up to 2 days, necessitating extensive dosing adjustments

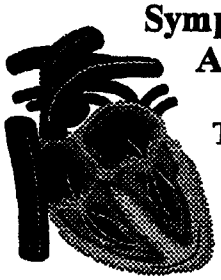
Clinical studies in HIT include two multi-center, prospective, open label, historical control trials- HAT1 (Greinacher et al. Circulation 1999;99:73-80), and HAT2 (currently published only in abstract form and as data on file with Hoechst Marion Roussel). For the 79 subjects in HAT1 and the 98 subjects in HAT2, study results were as follows: Plt recovery ranged from 86% - 92%; 74-77% showed effective aPTT response; and TEC + Death + Amputation =18% (HAT1, n=8,3,6 respectively) vs 28% (HAT2, n=20,10,11, respectively). No deaths were due to lepirudin. In comparison with historical controls, lepirudin showed significantly less TEC + Death + Amputation on days 7 and 35 in HAT1, but in HAT2 differences did not reach statistical significance. The authors noted bleeding to be the most common adverse effect [HAT1- 32.9% had at least 1 event (13.4% major bleeds), HAT2 - 48% had major or minor bleeding].

There are very specific guidelines for dosing and monitoring lepirudin therapy. Dosing depends on the presence or absence of TEC, use of thrombolytic therapy, and presence of renal dysfunction. Guidelines are specific for aPTT monitoring, resultant dosing adjustments, and conversion to oral anticoagulants. For more specific information on dosing and monitoring please contact the clinical pharmacy office (x8884). Please refer to the attached table for therapeutic advantages, disadvantages, and LVH cost compared to danaparoid.

DRUG	ADVANTAGES	DISADVANTAGES	LVH COST
Danaparoid	~Rapid anticoagulation ~Experience in large case series ~Lower cross-reactivity vs LMWH ~Anti-Xa monitoring not necessary in all patients ~More extensive clinical experience than lepirudin ~Anti-Xa monitoring is possible at LVH ~May have less bleeding than lepirudin	~0-20% cross-reactivity to HIT antibodies ~Anti-Xa monitoring using curve calibrated w/ danaparoid difficult from lab perspective ~No antidote for bleeding ~T1/2 long if surgery/procedure needed or bleeding occurs ~T1/2 extended in renal failure but no specific # published or known	Dose Day1$ Day2-$$/Week Danap. Prophyl 197-295 same1377-2065 Danap. Inf. HIT Therapy ~1062 5514367 LVH cost per unit= $98.36 per 750aXaU/0.6ml
Lepirudin	~Rapid anticoagulation ~Short T1/2 ~No cross-reactivity w/ HIT antibodies ~aPTT monitoring readily available ~Studied as MC, historical control data ~Only agent FDA indicated for HIT therapy, a potential medical legal issue to not carry.	~?Greater bleeding risk ~Accumulation occurs in renal impairment ~No antidote for bleeding ~? HAT2 results - trial unpublished to date	Dose Day1$ Day2-$$/Week Lepir. HIT w/o TEC 373 same2609 Lepir. HIT+TEC 621 5593976 LVH cost per unit= $103.54 per 50 mg

THE CENTER FOR EDUCATIONAL DEVELOPMENT AND SUPPORT

April, 1999



Symposium Announcement

The Sixth Annual Update on Heart and Lung Surgery will be held on Saturday, April 10, 1999 in the LVH Cedar Crest Auditorium.

The program will:
- Describe and discuss new procedures and technology in cardiothoracic surgery,
- Compare off-pump beating heart versus port-access coronary artery bypass surgery,
- Discuss the new endoscopic approach to lobectomy,
- Review advanced mechanical support for the failing heart, and
- Examine the early results on the new stentless biological aortic valve.

For more information or to register, please contact Bonnie Schoeneberger via Email or phone at (610) 402-1210.

If you plan to attend the Update, you and a guest are cordially invited to attend a cocktail reception honoring the visiting professors on April 9, 1999 7-10 pm at the John and Dorothy Morgan Cancer Center's Kelly Gallagher Atrium. Please RSVP to Bonnie Schoeneberger.

Continuing Education:

See the following calendar for grand rounds and tumor boards.

News from the Library

National Library Week is April 11th - 17th.

OVID/PubMed TRAINING.

To schedule one-on-one OVID (MEDLINE) training session, call Barbara Iobst in the Health Sciences Library at 402-8408. Barbara can also instruct you in the use of PubMed, a free, Web-based MEDLINE service offered by the National Library of Medicine (NLM). MEDLINE can be searched directly using PubMed.

Library Book Order

The Health Sciences Library is preparing its fiscal year-end book order and is seeking input from the medical staff. Please E-mail Barbara Iobst, Director of Library Services, with your recommendations. If you prefer to call, her extension is 402-8408.

New Publications - Muhlenberg Hospital Center.

"Comprehensive Neurology," 2nd edition
Author: R. Rosenberg, et al.
Call No. WL 100 C737 1998

New Books - Cedar Crest & I-78.

"Hematology/Oncology Clinics of North America" Topic: "Current Therapeutic Issues in Gynecologic Cancer" Volume 13, No. 1 - February, 1999

"The Medical Clinics of North America"
Topic: "Parkinson's Disease and Parkinsonian Syndromes"
Guest Editor: M. Stern, et al.
Volume 83, No. 2 - March, 1999.

New Books - 17th & Chew.

"Seminars in Perinatology"
Topic: "Current and Evolving Concepts in Preeclampsia"
Guest Editor: G. Saade
Volume 23, No. 1 - February, 1999

"Current Problems in Obstetrics, Gynecology, and Fertility"
Topic: "Fetal Telemedicine: Its Role in Obstetric Ultrasonography"
Guest Editor: F. Malone, et al.
Volume 22, No. 1 - January/February, 1999.

News from the Office of Educational Technology

PC Basics, Windows NT/95 & Email:
The following classes will be held at Muhlenberg Hospital Center in the I/S Training Room off the lobby of the main building. Please call 317-4771 to register. Registration is required.

PC Basics
April 9 - 9-11am
April 23 - 9-11am

Windows NT/95
April 9 - 1-3pm
April 23 - 1-3pm

Email Intro.
April 16 - 9-11am
April 30 - 9-11am

Computer-Based Training (CBT):

CBT is replacing instructor-led classes previously held at LVH. A proctor will be in the room with the learner while s/he takes the CBT, but the learner will control the pace and objectives of the learning.

Topics covered by CBT include:
Access 2.0 & 97
Windows NT 4
Word 97
Excel 97
PowerPoint 97
PHAMIS Lastword Inquiry only commands
E-mail GUI

CBT takes place in JDMCC, Suite 401. From April through December 1999, there will be two CBT sessions every Tuesday. The morning session is 8:00 am to noon. The afternoon session is 12:30 to 4:30 pm.

Twelve slots are available for each session

To register, please contact Bonnie Schoeneberger via email or at 402-1210. If you have questions regarding CBT, please contact Craig Koller via email or at 402-1427.

Any questions, concerns or comments on articles from CEDS, please contact Sallie Urffer 402-1403

Medical Staff Progress Notes

Grand Round and
Tumor Board Schedule

1999 *April* 1999

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1 9 am Emergency Medicine Grand Rounds- 1251SCC, Suite 306C 12 Noon Combined Tumor Board - JDMCC - CR1 A/B	2 7 am GYN Tumor Board/OBGYN Grand Rounds - 17 Aud 12 Noon Breast Tumor Board - JDMCC- CR1 A/B	3
4	5 12 Noon C/R Tumor Board - JDMCC - CR1 A/B	6 7 am Surgical Grand Rounds - CC-Aud - 8am Pediatric Grand Rounds - 17-Aud 12 Noon Medical Grand Rounds CC-Aud	7	8 12 Noon GI Tumor Board - JDMCC - CR1 A/B	9 7am OBGYN Grand Rounds -17 Aud 12 Noon Pediatric Noon Conf - 17 Aud 12 Noon Breast Tumor Board - JDMCC- CR1 A/B	10 730 am Update on Heart & Lung Surgery CC Aud
11	12	13 7am Ambulatory Clin Guideline Dev - SON 7 am Surgical Grand Rounds - CC-Aud - 8am Pediatric Grand Rounds - 17-Aud 12 Noon Medical Grand Rounds CC-Aud	14 12 Noon Pulmonary Tumor Board - JDMCC - CR1 A/B	15 12 Noon Cancer Committee - JDMCC - CR1 A/B	16 7am OBGYN Grand Rounds -17 Aud 12 Noon Breast Tumor Board - JDMCC- CR1 A/B	17
18	19 12 Noon C/R Tumor Board - JDMCC - CR1 A/B	20 7 am Surgical Grand Rounds - CC-Aud - 8am Pediatric Grand Rounds - 17-Aud 12 Noon Medical Grand Rounds CC-Aud	21	22 12 Noon Combined Tumor Board - JDMCC - CR1 A/B	23 7am OBGYN Grand Rounds -17 Aud 12 Noon Pediatric Noon Conf - 17 Aud 12 Noon Breast Tumor Board - JDMCC- CR1 A/B	24
25	26	27 7 am Stahler /Rex Symposium - CC-Aud - 8am Pediatric Grand Rounds - 17-Aud 12 Noon Medical Grand Rounds CC-Aud 12 Noon Urology Tumor Board - JDMCC - CR1 A/B	28	29 12 Noon Combined Tumor Board - JDMCC - CR1 A/B	30 7am OBGYN Grand Rounds -17 Aud 12 Noon Breast Tumor Board - JDMCC- CR1 A/B	

LEHIGH VALLEY
HOSPITAL AND
HEALTH NETWORK

Cedar Crest & I-78
P.O. Box 689
Allentown, PA 18105-1556

Medical Staff Progress Notes

Medical Executive Committee

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

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 402-8590.