LEHIGH VALLEY HOSPITAL

# Medical Staff Progress Notes

September
1997
Volume 9
Number 9

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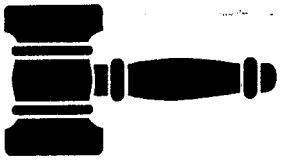

## *From the President*

> The world hates change, yet it is the only thing that has brought progress.
>
> Charles F. Kettering

There are those who would suggest that the only thing that changes faster than the Spring weather in New England is the medical climate in America today. It's been some time now since we, as a medical staff, have enjoyed the "Golden Era" of medicine, if we ever did. We are immersed in a cultural revolution of legal and insurance oversight, increasing expectations, manpower plans, and hospital affiliations.

Well, we here at Lehigh Valley Hospital are about to undergo a major change. As you know, on Wednesday, August 6, 1997, the Board of Trustees of Lehigh Valley Hospital and Muhlenberg Hospital Center announced their intentions to merge the two institutions. While this merger will have very significant positive effects with regards both to providing better integrated health systems and programs to the Allentown and Bethlehem communities and to improving the merged institutional financial base and credit rating, this action is bound to raise serious concerns on the parts of members of both medical staffs. The medical staff leadership at both Muhlenberg Hospital Center and Lehigh Valley Hospital realize that there are some very significant issues facing us in this new Lehigh Valley Hospital Health Network. These concerns have caused us to defer any immediate merging of the two medical staffs. Instead, we plan to take on these issues prior to any attempt at merging staffs. I ask that members of the Lehigh Valley Hospital medical staff communicate your concerns and hopes to a member of the Medical Executive Committee, Troika, or myself so we can continue to represent you responsibly at the negotiation table.

It also appears that the nature of PennCARE will be changing slightly in a way in which the effect it will have on the medical staff at Lehigh Valley Hospital is unclear. Abington Hospital has applied for membership in PennCARE and the PennCARE Board has accepted their application. Obviously, this means that Lehigh Valley Hospital will no longer be the only medical community able to provide tertiary care to PennCARE

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subscribers. This will necessitate that our staff be able to be better at "COOPITITION" than our Abington colleagues. While we must cooperate to insure the integrity of the Integrated Delivery System which helps protect us from the competition in Philadelphia, at Allegheny, at Columbia/HCA and others, we must be able to be better at providing the absolute finest care in a financially responsible manner so as to insure that the obvious choice for medical care will most certainly be the physicians on this medical staff.

So too, as in any climate of change, some prefer to change climates. I would be remiss if I did not publicly recognize colleagues and friends who will be leaving Allentown to begin practice elsewhere. To Larry Feldman, Paul Guillard, John Samies, and David Vargas, thank you for all you have done for the people of the Lehigh Valley during your tenure here and thank you for all the help and support you provided to me.

On a more uplifting note, however, we as a medical staff should celebrate and recognize the recent U.S. News & World Report which ranked the geriatrics and urology programs at Lehigh Valley Hospital as among the nation's finest. While, on a more local level, we recognize the tremendous talent embodied in the staff here, it is gratifying to see our brethren recognized on a national level as well. Congratulations to Fran Salerno and Ed Mullin and all the members of your respective divisions!

Finally, as a reminder, our next General Medical Staff meeting will be held on Monday, September 8, at 5:30 p.m., in the auditorium at Cedar Crest & I-78. I look forward to seeing all of you there!
President, Medical Staff

Robert X. Murphy, Jr., MD

## *At-Large Member Needed for Medical Executive Committee*

Due to the recent resignation of John H. Samies, MD, from the Medical Executive Committee, the Medical Staff Nominating Committee is seeking nominations to fill the vacant seat with the term ending June 30, 1999. The election will be held at the General Medical Staff meeting on September 8. Nominations will be accepted from the floor at the meeting.

If you have any questions regarding this issue, please contact David M. Caccese, MD, Chairman of the Nominating Committee, or John W. Hart, Vice President, at 402-8980.

There will be a meeting of the General Medical Staff on Monday, September 8, beginning at 5:30 p.m., in the Auditorium at Cedar Crest & I-78. All members of the Medical Staff are encouraged to attend. Immediately following the meeting, a reception will be held in honor of the Divisions of Geriatrics and Urology which were recently ranked among the nation's finest as published in U.S. News & World Report.

## *Semi-Annual Needs Survey*

By now, you should have received a memo dated August 15, 1997, which marks the beginning of the Semi-Annual Needs Survey for the Medical Staff as called for in the Hospital Staff Development Plan. The purpose of these surveys is to review the clinical specialty needs of the Hospital.

Under the Hospital Staff Development Plan, requests for slots in the Active and Associate categories must be made via the semi-annual needs survey. You may document any need for additional personpower (in your group, division, or other department) by completing the Hospital Staff Development Specification Statement, which is available in the office of Medical Staff Services at Cedar Crest & I-78.

Your completed request form must be received in the office of Medical Staff Services at Cedar Crest & I-78 **NO LATER THAN SEPTEMBER 14, 1997** in order that it may be included in this semi-annual needs survey which will result in the Board of Trustees taking action on these requests for slots at the January 7, 1998 meeting.

As part of the process, it is required that you discuss your request with the Department Chairperson, obtaining his signature (on the Hospital Staff Development Specification Statement) to indicate that the discussion took place, prior to the September 14 deadline. Your request will later be reviewed by the appropriate Department Chairperson in consultation with the Division and Section Chief before being presented to the Hospital Staff Development Advisory Committee, the Performance Improvement/Staff Development Committee of the Board of Trustees, and the Board of Trustees. The Department Chairperson will acquire input concerning all slot requests in a manner determined by each department and the Staff Development Plan.

Please be reminded that **all Active and Associate staff appointments**, at Lehigh Valley Hospital, where there exist no presently approved slots, will require processing in this manner.

If you have any questions regarding this process, please contact either John W. Hart, Vice President, or Beth Martin, Executive Secretary, at 402-8980.

**Attention Physicians and Office Managers**

**Medical Staff dues letters will be distributed shortly. Timely remittance of dues is both requested and appreciated.**

**A General Membership meeting of the Greater Lehigh Valley Independent Practice Association, Inc., will be held on Tuesday, September 23, at 6 p.m., in the Auditorium at Cedar Crest & I-78.**

# *LVH Ranks Again on America's Best Hospitals List*

Lehigh Valley Hospital ranked as one of the top providers in the nation for geriatrics and urology in U.S. News & World Report's eighth annual guide to "America's Best Hospitals."

Geriatrics was ranked for the second year in a row and is the only hospital in Pennsylvania, outside of Philadelphia and Pittsburgh, to be recognized for care of elderly people. This was the first year LVH's urology program was ranked.

According to magazine officials, the top 42 medical centers in any specialty should be considered a leading center.

The geriatrics program at LVH was introduced in 1990 by Francis A. Salerno, MD. The Division of Geriatrics provides educational programs, clinical services, research and community outreach. More than 30 of the hospital's doctors are certified in geriatrics, but the program really involves all of the staff at LVH. Geriatrics was ranked 41.

"I feel we still have a great deal of work to do and there are a number of activities being planned and implemented," Dr. Salerno said. "We aspire to be in the top 10 next year."

One of the most successful geriatrics programs is the Ambulatory Geriatric Evaluation Service (AGES). Geriatric specialists evaluate the patient's medical, functional, psychological, social and economic needs and then recommend treatment options, living arrangements and community agencies to provide assistance and family support. The goal is to help the patient remain independent as long as possible.

Part of that is the Vitality Plus program for people 50 and older. Members receive benefits of health and education programs, hospital amenities, social events and discounts.

Urology has 10 board-certified physicians who run a continence program for women and an oncology program. The division is also involved in Prostate Awareness Week, a program held each September that offers free prostate cancer screenings.

Currently, the Division of Urology is working to implement brachytherapy, implantation of radioactive seeds in the prostate to treat prostate cancer, and a continence program for men, said Edward M. Mullin, Jr., MD, Chief, Division of Urology. The program was ranked 27.

"We have one of the busiest urology services in the country, which we were not aware of," Dr. Mullin said. "While all the members felt we were practicing a high quality of urology as well as a high volume, the Division of Urology is certainly gratified by the official and public recognition of its efforts and proud of its performance. We have a good group of doctors that work hard for excellence in patient care."

According to U.S. News & World Report, this year's "America's Best Hospitals" lists assessed care for 17 specialties at 135 hospitals nationwide. Rankings for 13 of the specialties were based on reputation and various medical data. The hospital was evaluated on its reputation, mortality rate, service mi

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and technology. Those specialties included: AIDS, cancer, cardiology, endocrinology, gastroenterology, geriatrics, gynecology, neurology, orthopedics, otolaryngology, pulmonary disease, rheumatology and urology. Rankings in ophthalmology, pediatrics, psychiatry and rehabilitation were based on reputation alone.

To be considered for ranking, a hospital had to be a member of the Council of Teaching Hospitals (COTH), or be affiliated with a medical school, or have a score of 10 or more on a scale of available hospital technology. This year, 1,800 hospitals were evaluated.

*Colleagues:*

*After 25 years of leading the clinical research mission in Allentown, Dr. David Prager is stepping down as Senior Investigator for the Eastern Cooperative Oncology Group (ECOG) and Principal Investigator for the National Surgical Adjuvant Breast and Bowel Project (NSABP) at Lehigh Valley Hospital.*

*Widely recognized as establishing the practice of medical oncology and hematology in Allentown, Dr. Prager has been instrumental in guiding first the Allentown Hospital, and more recently, the Lehigh Valley Hospital through the development of their cancer program. In particular, he was the medical director of the cancer program when the John and Dorothy Morgan Cancer Center was completed in 1993.*

*I will succeed Dr. Prager as the new ECOG senior investigator, and Herbert C. Hoover, Jr., MD, will succeed him as principal investigator of NSABP. Dr. Prager will continue as an active member in both groups and will continue to participate in their clinical trials program.*

*I want to acknowledge David's contribution to the cancer program at Lehigh Valley Hospital. The patients and families of Allentown owe him a significant debt for his role in establishing the high quality of oncologic practice in this community. In addition, through David's ECOG and NSABP leadership, both physicians and patients have participated in advancing the outcomes of cancer treatment through their participation in clinical trials.*

*Chuck Hoover and I are looking forward to continuing the tradition of clinical investigation started by Dr. Prager. We plan to expand the clinical research mission further through our academic collaboration with Penn State University Cancer Center at Hershey and our clinical affiliation with the Johns Hopkins Oncology Center.*

*Gregory R. Harper, MD, PhD*
*Director, Morgan Cancer Center*

# *Abington Memorial Hospital Joins PennCARE*

Abington Memorial Hospital has joined the PennCARE integrated health care delivery system, bringing the number of hospitals to 11 employing 13,000 people, with combined medical staffs of 3,000 physicians. More than 3.7 million residents live in the counties now served by PennCARE providers, an area measuring 5,400 square miles.

This new addition makes PennCARE the largest health care network in Pennsylvania from the standpoint of beds (2,528), inpatient admissions per year (112,000), and emergency department visits per year (315,000).

Abington Memorial Hospital is a regional acute care hospital with 508 licensed beds and a medical staff of more than 600 physicians and 3,500 employees, providing medical care and health services to residents in Bucks, Montgomery, and Philadelphia counties. The hospital has the only Level II accredited trauma center in Montgomery County, and offers highly specialized services in cancer care, maternal-child health, and cardiac care. Last year, the hospital had more than 21,000 inpatient admissions and 436,000 outpatient visits.

"Our new PennCARE partners add tremendously to the breadth and depth of medical care available to the people of eastern Pennsylvania through a single, integrated network," said Elliot J. Sussman, MD, Chairman of the Board and President of PennCARE. "They share the vision of other local health care systems in PennCARE, that local health care decision making through a provider-led network is the best way to care for our communities."

Other partners in PennCARE include the following hospitals and participating members of their medical staffs: Doylestown Hospital; Easton Hospital; Gnaden Huetten Memorial Hospital in Lehighton; Grand View Hospital, Sellersville; Hazleton General Hospital; Hazleton-St. Joseph Medical Center; Lehigh Valley Hospital; Muhlenberg Hospital Center; North Penn Hospital, Lansdale; and Pocono Medical Center, East Stroudsburg.

The PennCARE network was introduced in May 1995 and began contracting with managed care companies in August 1996.

The PennCARE network does not involve the merger of assets; each member remains independent and has agreed to participate in mutual contracting, consistent medical management and single data collection to measure and improve health outcomes of individuals covered under its health plans.

## Patient Death Notification

If a patient dies, it is the attending physician's responsibility to notify the family. If there is another attending physician from another facility (i.e., Allentown State Hospital) who referred the patient to Lehigh Valley Hospital, AS A COURTESY, the attending physician at Lehigh Valley Hospital should contact the attending physician at the referring facility regarding the patient's death.

# *JCAHO Reminders*

## Restraints/Seclusion

Sixty percent of all hospitals surveyed thus far in 1997 have received a Type 1 recommendation during the survey. (A Type 1 recommendation recognizes a serious deficiency in the hospital's processes and affects accreditation status.) Your help will prevent us from being added to that number.

Remember:

- A new order must be written every 24 hours after a face-to-face assessment by the physician (physician order sheets are available).
- Documentation supporting the continued use of the restraint/seclusion must be found in the progress notes.
- The order must contain the following: Date/Time, Type of Restraint, Purpose for Restraint, Criteria for Discontinuation, Length of Time for Restraint (additional requirements for Psychiatry/Behavioral Health Patients include RN's ability to reassess for continued use of restraint/seclusion).
- Telephone/Verbal Orders must be co-signed within 24 hours.

JCAHO surveyors will look for compliance with the above during their review of open and closed medical records and in the interview sessions.

## Medications

Our process for controlling sample medications will be looked at closely.

Reminders:

- All sample medications must enter through the pharmacy (the specifics needed will be logged in according to policy).
- When medication samples are dispensed, all necessary information must be documented on the sample dispensing log sheets (required in case of a recall or follow-up).

## Medical Records

Patient confidentiality must be maintained at all times.

Remember:

- To follow policy in regards to medical record security.

## Outpatient Services

Lehigh Valley Hospital at Cedar Crest & I-78 provides a designated location for outpatient services related to diagnostic imaging and outpatient laboratory work. The services are provided in the 1230 medical office building in Suite 104 and 102, respectively. In order to serve our patients more effectively and efficiently, please communicate this information to your patients to assure that they arrive at the right location for their testing.

# *Reminders and Notes from Transfusion Service*

## Blood Transfusion and Hepatitis Notification

When blood transfusion is implicated as a cause of Hepatitis, the Transfusion Service needs to be notified in order to convey this information to the regional blood collecting facilities so that the donor of the unit is identified as potentially infectious and deferred from further blood donations. To notify the Transfusion Service, please call the Blood Bank at 402-8181.

## HCV Testing

Recently, the American Liver Foundation has recommended (through advertisements in the press) that persons who have received blood transfusions prior to May, 1990 be tested for HCV. These individuals are being identified as high risk for developing chronic liver disease.

The first generation HCV test was approved by FDA in May, 1990, and most blood centers had started testing the donor blood immediately. Currently, a second generation test for HCV is available. This has eliminated a large number of false positive tests seen with the first generation test. To date, FDA/AABB or CDC have not issued any formal guidelines on this issue. We are closely monitoring this and will immediately relay any information that becomes available to us. In the meantime, it is recommended that if you have any such patient in your practice, that you give serious consideration to obtaining a HCV test on these patients. The test is performed on the serum, and can be ordered individually or as part of a Hepatitis profile.

The risk of acquiring transfusion associated HCV is 1:100,000. The risk of acquiring transfusion associated HBV is 1:60,000.

## Maximum Surgical Blood Ordering Schedule (MSBOS)

As you may know, the MSBOS went into effect on August 1, 1997. The Transfusion Service will make a monthly report to the Transfusion Committee as to the effectiveness of this process. This is a performance improvement (PI) indicator to meet JCAHO expectations. Since the MSBOS was presented at most individual division meetings prior to finalizing the program, it is hoped that everyone will be an active participant in this PI. If you have any questions or concerns regarding the schedule, please e-mail or call Bala B. Carver, MD, Director, Transfusion Service, at 402-8142.

## Price Increase in RhIG (RhoGam)

The companies that manufacture this product are anticipating a marked increase in the pricing due to a FDA mandated purification step to eliminate any possible infection potential. The manufacturers deeply regret this increase, but feel they have no choice in the matter but to comply with the FDA mandate. The expected increase is fourfold over the current pricing.

**Medical Staff Trivia**

According to Medical Staff Services records, 60 members of the Medical Staff are married to another doctor on the Medical Staff.

## *Neonatal Resuscitation*

Just a reminder that all physicians, nurse midwives, and nurse practitioners who attend deliveries are required to be up-to-date on this certification.

For your convenience, Neonatal Resuscitation recertification/ certification will be held during the month of September. This will be your ONLY opportunity to recertify/ certify for 1997 and 1998 -- if you expire in 1998, make sure that you attend.

The dates and times are as follow:

- Friday, September 5, at 7 p.m. through Monday, September 8, at 7 a.m.
- Friday, September 12, at 7 p.m. through Monday, September 15, at 7 a.m.
- Thursday, September 18, at 11 a.m. through Friday, September 19, at 3 p.m.
- Thursday, September 25, at 11 a.m. through Friday, September 26, at 3 p.m.

All sessions will be held in the "old" ICU area at 17th & Chew. Take the blue elevator to the 4th floor and turn right.

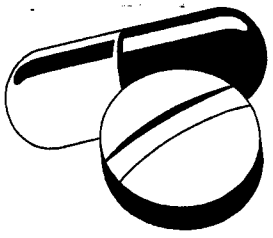
If you must perform intubation, neonatology may or may not be available during the time that you recertify/certify. Please call to check availability. For more information or if you have any questions, please contact Wendy Amig, Perinatal Patient Care Specialist, at 402-3895 or beeper 5100-9769.

## *Bristol-Myers Blood Pressure Study*

Individuals are currently being recruited for a Phase II 14-week drug dosing blood pressure study. The drug, BMS-186716, is a potent metalloprotease inhibitor to be utilized as a once-a-day antihypertensive agent. This project is being supervised by Nelson P. Kopyt, DO, and Gina M. Karess, MD, at 17th & Chew. The Clinical Research Specialist is Marianne Y. Benioff, RN, BSN. All participants will receive free medications, exams and testing. Enrollment is open until the end of September 1997. The project is to be completed by January 1998. Criteria for the study protocol are as follows:

1. Age 18 or older
2. Male or female (must be surgically sterilized or post-menopausal)
3. Hx of mild to moderate HTN (SeDBP 95-110mmHg).

For additional information, contact Marianne Benioff at 402-9524.



# *Library News*

## OVID Training

To schedule a one-on-one OVID (MEDLINE) training session, call Barbara Iobst in the Health Sciences Library at Cedar Crest & I-78 at 402-8408.

## Library Construction - Cedar Crest & I-78

Construction will begin in the near future for the Meyer Cohan Learning Resource Center (LRC). The LRC (virtual classroom) is designed to be a multipurpose, multimedia classroom for the delivery of medical education. It is anticipated that the construction will take about 2 1/2 months.

## New Additions to the Library Collection

The following books were recently acquired by the Cedar Crest & I-78 Library:

**AJCC Cancer Staging Manual, 5th edition**
Author: American Joint Committee on Cancer
Call No. QZ 241 A312 1997
(Reference Section)

**Current Therapy in Endocrinology and Metabolism, 6th edition**
Author: C. Wayne Bardin
Call No. WK 100 B235c 1997

**Disease Management: A Systems Approach to Improving Patient Outcomes**
Author: Warren Todd, et al.
Call No. W 84.7 D611 1996

**Guide to Clinical Resource Management**
Author: Mickey Parsons, et al.
Call No. W 74 G945 1996

Publications purchased for the 17th & Chew Library include:

**Clinical Gynecologic Oncology, 5th edition**
Author: Philip DiSaia, et al.
Call No. WP 145 D611c 1997

**Clinical Obstetrics and Gynecology**
Volume 40, Number 2 - June 1997
Topic: "Managed Care and the Obstetrician/Gynecologist"
Guest Editor: Arnold Cohen

**The Fragile Alliance: An Orientation to the Psychiatric Treatment of the Adolescent, 4th edition**
Author: John Meeks
Call No. WS 463 M494f

**Breaking Free of Managed Care: A Step-By-Step Guide to Regaining Control of Your Practice**
(Behavioral Health)
Author: Dana Ackley
Call No. W 80 A182b 1997

**Rheumatology in Primary Care**
Author: Juan Canoso
Call No. WE 544 C227r 1997

## *Congratulations!*

**Deborah N. Kimmel, MD**, Division of Physical Medicine/Rehabilitation; **Alexander D. Rae-Grant, MD**, Medical Director, Neurodiagnostic Lab; **Sharon Bartz**, Staff Assistant; **Kathleen Bodnar, RN**; **Nancy J. Eckert, RN**, Clinical Research Specialist; and **John Graham, BS, CSCS**, Director, Human Performance Center, have become members of the Consortium of Multiple Sclerosis Centers. The Consortium of Multiple Sclerosis Centers comprises centers from all around the world dedicated to education, advocacy, and research, and new management strategies of management of multiple sclerosis.

**Sophia C. Kladias, DMD**, Division of General Dentistry, received the Academy of General Dentistry's prestigious Fellowship award during the convocation ceremony at the Academy's 45th annual meeting held in Chicago, Ill., on August 2.

## *Papers, Publications and Presentations*

**George A. Arangio, MD**, Section of Orthopedic Trauma, had two articles published in recent months -- "Biomechanical Study of Stress in the Fifth Metatarsal" in the March, 1997 issue of ***Clinical Biomechanics***, and "Reemployment of Patients with Surgical Salvage of Open, High-Energy Tibial Fractures: An Outcome Study" in the May, 1997 issue of the ***Journal of Trauma***.

**Peter A. Keblish, Jr., MD**, Chief, Division of Orthopedic Surgery, was an invited member of the guest faculty of Summer University at the University of Edinburgh at Scotland UK in June. The Summer University, held under the direction of the faculty of the University and Mr. Peter Abernathy, is designed to treat specialized subjects for the newly graduated orthopedic registrars in the UK and other countries in Europe. The University is fashioned after the Summer Institute held in the United States, under the direction of the American Academy of Orthopaedic Surgeons.

Dr. Keblish was involved in moderating and directing case study groups as well as presenting formal lectures and demonstrations. He presented several topics on subjects including surgical approaches, techniques and experience with primary and revision total knee replacement.

**Dominic P. Lu, DDS**, Program Director, Dentistry Residency, had excerpts from his study, "Clinical Comparison of Various Intramuscular Sedation Agents and their Reversal Drugs" published in Vol. 25, No. 1, 1997 of ***Pain Control***.

**Michael Sheinberg, MD**, Division of Primary Obstetrics and Gynecology, co-authored a research paper, "Application of Telethermography in the Evaluation of Preterm Premature Rupture of the Fetal Membranes," which was published in Volume 30, Number 6, November/ December 1996, of ***Biomedical Instrumentation & Technology***.

**Michael Weinstock, MD**, Chairperson, Department of Emergency Medicine, will provide the Keynote Address -- Our Specialty, Ourselves: Where We Stand -- at the 4th Annual Emergency Medicine/ Emergency Medical Services Convergence to be held at the Split Rock Resort in Lake Harmony from September 19-21. In addition, Dr. Weinstock will be one of the program presenters for New Frontiers in Acute Stroke Management, to be held on Saturday, September 20, from 11 a.m. to 1 p.m.

# *Upcoming Seminars, Conferences and Meetings*

## Medical Grand Rounds

Medical Grand Rounds are held every Tuesday from noon to 1 p.m., in the hospital's Auditorium at Cedar Crest & I-78.

Topics to be discussed in September include:
September 2 - Infectious Disease
September 9 - Rheumatology
September 16 - Department of Medicine
September 23 - Geriatrics
September 30 - Endocrinology

For more information, please contact Becky Sherman in the Department of Medicine at 402-8200.

# *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

### *Change of Practice Affiliation*

**Kenneth G. Ryder, Jr., MD**
(no longer with Shepherd Hills Family Practice)
(Opening solo practice September 2)
4955 Route 873, Suite B
P.O. Box 388
Schnecksville, PA 18078-2211
(610) 799-4100
FAX: (610) 799-4101

### *Change of Address*

**Michael L. Zager, MD**
(Lehigh Internal Medicine Associates)
East Penn Family Practice
1040 Chestnut Street
Emmaus, PA 18049-1998
(610) 967-4830
FAX: (610) 965-7737

As our second class of residents starts, the Family Practice Residency will have a much more active inpatient teaching service which will include adults, children, and birthing.

In order to assist hospital staff, a coverage schedule of days, nights, and weekends has been distributed to all clinical care units.

We ask that our charts be identified as "FPS" (for Family Practice Service) in addition to identification of the attending, e.g., "White/FPS".

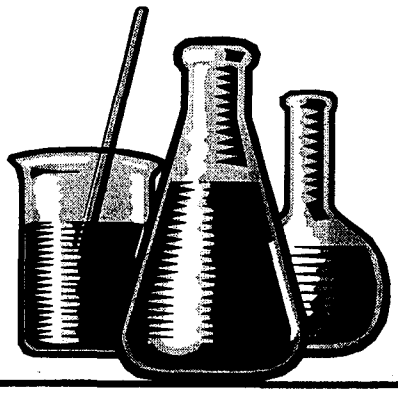
For our physician colleagues, we ask that you follow hospital guidelines for consultation and teaching when assisting in the care of our patients.

We are looking forward to developing productive, educational, and patient-care relationships with you.

Brian Stello, MD
Department of Family Practice

HEALTH NETWORK LABORATORIES

A Service of LEHIGH VALLEY HOSPITAL



# International Cytology Conference

## Hawaii, USA - June 5 to 10, 1997

The International Academy of Cytology organized, for the first time in its history, an international conference on Diagnostic Cytology Towards the 21st Century. This conference was held on the big island of Hawaii from June 5 to 10, 1997. It was entirely different from many previous IAC meetings, tutorials, and world congresses in cytopathology. It dealt predominantly with selected topics prepared in advance and comprising 11 task forces. Their prime goal was to lay the foundations for future diagnostic cytology practice in the 21st century. The 11 task force topics were as follows:

- Atypical squamous cells of undetermined significance (ASCUS) and atypical glandular cells of undetermined significance (AGUS) criteria.
- Human papilloma virus (HPV) and cervical precancer, screening frequency, and HPV testing.
- Telecytology.
- Terminology.
- Quality assurance and quality control issues.
- Computerized screening devices.
- Cost/benefit assessments of automated devices.
- Cell preparation methods and sample adequacy criteria.
- Colposcopy, endoscopy, cervicography, speculoscopy.
- Medical/legal implications of automated prescreening.
- Automation in cytology education and proficiency testing.

Each task force was chaired by an individual of most prominent experience and contributions to the body of diagnostic cytology literature. In addition, there were three to four co-chairs who had the function of helping the chairman with his obligations. Varying numbers of contributors submitted short commentaries on particular areas of interest or experience within the subject matter of each topic forwarding their comments (about three pages single spaced) to the Chicago conference office. The collated and duplicated contributions were then forwarded to the chairs and co-chairs from Chicago. It was the job of the chairs and co-chairs to consider the submitted material for possible entry into the position papers. The chairs, in cooperation with their co-chairs, prepared preliminary position papers for eventual presentation at the conference, sending a hard copy and a floppy disk, to the Chicago conference office for reproduction and insertion into a three-ring binder. It was only then that the Chicago office prepared the material for insertion into the three-ring binder which contained the final position papers and all contributions submitted by the task force members. During the conference, which took place between June 6 and 10, all task force members and every conference registrant had the opportunity to participate in the actual deliberations. The questions and/or comments will appear in the printed version of the Task Force Proceedings in August. Thus, all position papers, including the contributions, would be prepared for publication. The contributors will have the opportunity to amplify and/or modify their manuscripts before materials go to press. Acta Cytologica will devote the entire

January/February 1998 issue to the achieved consensus as well as topics of significant interest to gynecologists which will appear in the ***Journal of Reproductive Medicine***.

There were five conference lectures of outstanding interest and important medical/scientific data for the benefit of all participants in this international conference. On Friday, June 6, the first conference lecture submitted by Harubumi Kato, MD, PhD, FIAC, Tokyo, Japan, was on Cytologic Findings in Early Central Type Lung Cancer and Their Endoscopic Appearances. The same day, a second conference lecture was given by Shiro Nozawa, MD, PhD, MIAC, Tokyo, Japan, on Novel Enzyme Immunoassay for Endometrial Cancer using cytologic specimens. On Saturday, June 7, a conference lecture by Yoshio Tenjin, MD, PhD, FIAC, and Tadashi Sugishita, MD, FIAC, Tokyo, Japan, was on New Approaches to the Evolution of Diagnostic Cytology, focusing on the correlation between cell morphology and genetic changes. On Sunday, June 8, the conference lecture by Professor Nils Stormby, MD, PhD, FIAC, of Malmo, Sweden, was on Clinical Cytology, a Valuable Diagnostic Tool in a Tight Health Economy. Finally, the last conference lecture by Mark A. Shiffman, MD, MPh, and Diane Solomon, MD, MIAC, National Cancer Institute, NIH, Bethesda, Md., was on The Comparison of Cervical Cancer Methodologies.

Although each task force was supposed to deal primarily with its specific subject matter, it became quite evident during the deliberations and discussions that many of the participants had justifiably made quite numerous incursions into neighboring fields of other specific subject matters. The impression gained was that all task forces were united by a common thread of interdisciplinary structural relationships. Throughout the entire conference, this outstanding feature was particularly noticeable during the presentation of the various position papers and the discussions that emanated thereof.

Finally, a word on the choice of the venue of this important international conference. The site of Hawaii was not selected, in my opinion, for this work intensive and trend setting conference only to facilitate access from Pacific rim countries. It truly projected an image of an intensely awe inspiring venue by virtue of its unique attractive geologic/volcanic makeup compelling all to realize that one could not escape feeling close to the creation of planet Earth.

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Division of Cytopathology
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Lehigh Valley Hospital

**David G. Beckwith, PhD, Vice President, Network Laboratory Services, and Clinical Director, Health Network Laboratories, was recently the keynote speaker at the St. Louis Chapter of the Clinical Laboratory Management Association and participated in two Edu-trak sessions on laboratory management and laboratory automation at the annual meeting of the American Association of Clinical Chemistry in Atlanta, Ga.**

# *DRUG INFORMATION BULLETIN*

Pharmacy Department - July, 1997 Editors: Maria Barr, Pharm.D.,BCPS, Howard Cook, R.Ph., BCNSP, FASHP, Barbara Leri, Pharm.D., Rebecca Hockman, Pharm.D.

**The following information was distributed to the housestaff in July, 1997. As a means of communication with the Attending Physicians, the Drug Information Bulletin is being reprinted. Please review the information and contact the pharmacy if any questions arise.**

## *PHARMACY WELCOME TO THE NEW HOUSE STAFF*

Our Pharmacy staff would like to extend a sincere welcome to the new house staff. Our department provides a comprehensive service to patients, physicians, and staff as an integral part of the patient care, teaching, and research programs. This newsletter is a part of that service, and our goal is to keep you informed of recent activities of the Therapeutics Committee and the Food and Drug Administration.

Each year a few issues commonly require clarification by the Pharmacy Department. Please take note of the following:

## *PHARMACY AT THE POINT OF SERVICE!*

Pharmacists are no longer confined to the basement! Unit Based Pharmacy Services have been instituted house wide since the initiation of Patient Centered Care. Every weekday from 0730-1600 and until 2200 on floors 4-7, pharmacists are unit based to perform order entry for his/her assigned area as well as various clinical functions.

Clinical functions of our pharmacy staff include activities such as providing drug information, drug dosage adjustments, pharmacokinetics, alternative therapy options, IV-PO conversions, and patient teaching. The Unit Based Pharmacist is an indispensable resource to assist you throughout your day. Cellular phone numbers and beeper numbers are listed in the newsletter for your information. Pharmacist phone/pager numbers can also be found posted on patient care areas. Do not hesitate to contact a unit based pharmacist or the main pharmacy with questions at any time.

The Pharmacy Department houses a wide variety of journals and texts to answer drug related questions. Also, the Micromedex system, a computerized CD-ROM based clinical information system containing features such as Drugdex, Indentidex, Poisondex, and Emergendex is available on the hospital network to all pharmacists and physicians.

## *THE HOSPITAL FORMULARY*

The Lehigh Valley Hospital Formulary is developed under the auspices of the Therapeutics Committee which acts as an advisory group to the Medical Staff concerning drugs and their usage. The Hospital Formulary serves as a teaching aid, as well as a guide and standard for prescribing drugs. The formulary is available in a binder format on all nursing units. Each version is arranged in six parts:

Part I- Formulary Information and Procedures
Part II - Formulary Drugs by Category
Part III - Formulary Generic Drug List
Part IV- Section unused at this time
Part V - Appendices
Part VI - Parenteral Nutrition Order Guidelines
Part VIII - Physician's Assistant Formulary

Please note some of the useful tables and charts that are available in the appendices:

- Medication Administration Times
- Adverse Reaction Reporting System and Reporting Form
- Antacid, Vitamin Comparison Chart

- Narcotic Analgesics Comparison/ Conversion
- Standard Diluent, Volume and Infusion Rate Schedule
- Medication Stop Order Policy
- Therapeutic Equivalent Substitution List

## *DEA NUMBERS*

Temporary DEA numbers may be assigned to the new residents upon request of the residency directors. The Pharmacy assigns each resident's temporary DEA number, but each specific department (i.e. Medicine, Surgery, Family Practice, OB/GYN, ED, and Dentistry) must relay this information to the resident. Please note the temporary DEA number for all residents is the site's Pharmacy DEA number plus a unique three digit suffix. Each resident will have two separate DEA numbers one for use at Cedar Crest & I-78 and one for use at 17th & Chew.

## *PRESCRIPTIONS*

Residents may obtain prescriptions from Health Spectrum Pharmacy at cost plus a dispensing fee for him/herself and dependent relatives. The prescription will need to be paid for at time the medication received. Prescriptions are not filled by the inpatient pharmacy department.

## *STANDARD/PREMIXED IVS*

Drugs with standardized diluent, volume and infusion rate (when applicable) are listed in Formulary Appendix X. When ordering any of these drugs, please write only the dosage, route and frequency on the order sheet. Include diluent and/or volume only if it is medically necessary and state it as such on the physician's order. For example, writing Cefazolin 1Gm IV Q8H is sufficient to order this dose. The cefazolin will be dispensed in a syringe with an appropriate volume of diluent (10ml of sterile water for injection) and the rate of infusion will be dependent on volume in the syringe. The diluent needs to be indicated only if mandated by patient's clinical condition. (i.e. patient is fluid restricted).

A list of the standardized or premixed continuous infusions can be found in Appendix XIV. Some of these include Heparin 25,000 units/250ml, Insulin 50 units/100ml, Morphine 100mg/100ml and Theophylline 800mg/250ml.

## *CURRENT RECOMMENDATIONS FOR VENOUS THROMBOEMBOLISM (VTE/DVT)*

| | |
|---|---|
| Orthopedic (hip and knee replacement): | warfarin |
| General Surgery: | unfractionated heparin plus sequential compression devices (SCD) |
| Trauma Surgery: | warfarin and/or low molecular weight heparin (*<u>only</u> for high risk patients defined by VTE protocol) until able to take warfarin and SCD. |
| Hematology/Oncology: | warfarin |
| OB/GYN: | unfractionated heparin |
| <u>Other Uses</u> Interventional Cardiology: | unfractionated heparin and current thombotic regimens (Poor literature support for use of LMWH post intervention). |

* Note that presently, low molecular weight heparin (formulary: enoxoparin (Lovenox) 30mg SQ Q12H) is restricted to high risk trauma patients. In the rare instance that a patient must receive enoxaparin due to difficulty in blood draws to monitor INR's for warfarin adjustment, it must be clearly noted on the order.

## *HEPARIN DOSING*

A preprinted weight-based heparin order sheet is available for use for all patients requiring continuous infusions of heparin. The heparin dose should be based on total body weight for both the bolus and maintenance dose. There are scales for the aPTT on the order sheet to address dosing adjustments of heparin. A pocket guide for weight-based heparin is available for review for use of parenteral heparin.

## *TPA*

There are specific guidelines used in dosing TPA. Preprinted order sets can be found in the Emergency Departments and Coronary Care Units for its use for Acute MI. The order sets include all the available thrombolytic agents with strategies for Acute MI. Please note the weight dosing parameters for patients weighing less than 65Kg found in the guidelines. Due to the urgency required in ordering TPA, it would be helpful for the physician to call the pharmacy IV room (ext. 8879) directly or have the order brought to pharmacy to expedite the compounding and delivery of this medication for the patient. A written order indicating the patient's weight and desired dose must be received prior to dispensing. The pharmacy department will deliver the thrombolytic agent to patient care areas.

TPA may also be used for acute ischemic stroke (initiated 0-3 hours after symptom onset) and in acute pulmonary embolism. The protocols follow.

Acute ischemic stroke:

0.9mg/Kg (total dose $\leq$ 90mg)
10% dose IV bolus
Remaining 90% run over 60 minutes

Acute pulmonary embolism:

100mg give over 2 hours
(not weight dosed)

## *ELECTROLYTE DOSING*

KCL

The Therapeutics Committee (5/93) approved the following rate and concentration parameters for potassium administration.

1. Peripheral Line for All Units (non-monitored and monitored patients);

**IV Infusion:** 20mEq/hr (20mEq/100ml with 80mEq/bag limit)

**IV Bolus:** 20mEq/hr (20mEq/100ml with 20mEq/bag limit)

2. Central Line Limits - Non-Monitored Patients:

**IV Infusion:** 20mEq/hr (40mEq/100ml with 80mEq/bag limit)

**IV Bolus:** 20mEq/hr (1mEq/1ml with 40mEq/bag limit)

3. Central Line Limits - Monitored Patients:

**IV Infusion:** 40mEq/hr (1mEq/100ml with 80mEq/bag limit)

4. Maximum Daily Doses: 300mEq per 24 hour period

* To reduce the risk of phlebitis, it is recommended that sterile water be utilized as the diluent, especially when concentrations exceed 10mEq/100ml

* All solutions with a concentration greater than 1mEq/10ml must be administered via an electronic rate controlling device regardless of delivery site.

### *WHEN TO USE SUSTAINED-RELEASE KCL*

The sustained-release (SR) or time-release(TR) form is preferable for patients who need KCl supplements chronically. Immediate-release products, such as the KCl elixir and the intravenous form, are indicated when hypokalemic patients need immediate

potassium replacement. Physicians, therefore, should request KCl elixir to be given for an oral stat or now order. The best way to order any medications is to write the generic name, suffix with SR only if sustained-release form is desired. The following examples are

illustrations of the types of orders desirable when requesting an oral KCl dose:

| *Physician Order/* | *Pharmacy Dispenses (Per Dose)* |
|---|---|
| KCl 40mEq po stat/now- | KCl 40mEq elixir |
| KCl SR 20mEq po | -K-Dur 20mEq tab |
| KCl 20mEq via NGT | -K-Dur 20mEq* |

* Aqueous K-Dur suspension maintains SR property (Not for STAT/NOW USE), Recommended that 1 tablet be dissolved (NOT CRUSHED) in 4oz water, allow 2-3 minutes to disintegrate.

Calcium
IV
Calcium Gluconate
dose:0.5-2gm (5-20ml);
rate $\leq$ 5ml/min (500mg/min; 2.5mEq/min)
equivalents: One 10%ml/amp =1gm Calcium gluconate = 4.6mEq Ca.= 93mg Ca

Calcium Chloride
dose: 0.5-1gm (5-10ml);
rate $\leq$ 1ml/min (100mg/min; 1.5mEq/min)
equivalents: One 10% ml syringe = 1gm $CaCl_2$ = 13.6mEq Ca = 272mg Ca

Magnesium
Standard IV bolus:

for serum Mg 1.6-2.0mg/dl:
8mEq Mag Sulf/50ml D5W
(=1gm) Mag Sulf given over ½ hr

for serum mMg < 1.6mg/dl:
16mEq Mag Sulf/100ml D5W
(=2gm) Mag Sulf given over 1 hr

Oral equivalents:
Magnesium Chloride (slow-mag) time released
1 tablet = 535mg $MgCl_2$
= 64mg Mg
= 5.4 mEq Mg++

Magnesium Gluconate
1 tablet = 500mg Mg gluconate
= 27 mg Mg
= 2.25 mEq Mg++

5ml liquid = 1000mg Mg gluconate
= 54 mg Mg
= 4.5 mEq Mg++

Phosphorus
Potassium Phosphate: 1ml contains
4.4 mEq K+
3 mM phosphate

Sodium Phosphate: 1ml contains
4 mEq Na+
3 mM phosphate

IV Infusion: usual dose 15-30 mM phosphate/liter over 6-8 hours
for serum P 1.0-2.0mg/dl:
15 mM (< 7mM/hr)
for serum P< 1.0mg/dl:
30 mM

* The highest dose reported is 0.125mM/Kg/hr (rate $\leq$ 7 mM/hr) for 4 hours. The dose is recommended only for patients with normal renal function noted to have initial serum phosphorus concentration < 0.5mg/dl. Recheck the serum phosphorus concentration at the end of the infusion.

## *PARENTERAL ANTIBIOTIC ORDER SHEETS (PAOS)*

Lehigh Valley Hospital utilizes a separate and unique physicians order sheet for parenteral antibiotics. This order sheet allows the physician to choose preferred formulary antibiotics, their dosage and usual frequency

(assuming normal renal function)..There is also space available to order additional tests such as antibiotic levels or cultures. These sheets should be used for all parenteral antibiotics, including pre-op doses. A Pediatric PAOS is also available on units with pediatric patients.

Please complete the patient allergy and reaction section at the top of the sheet.

If an antibiotic does not appear preprinted on the order sheet, it may be written on the bottom of the PAOS. This section is available for reserved antibiotics which need special monitoring for drug utilization processing. The order sheet should be completely filled out with suspected pathogen and site (if empiric therapy) as well as special instructions, if needed.

There are suggested usage guidelines on the back of PAOS for general pathogenic coverage for antibiotics. Refer to these guidelines for empiric therapy, if cultures and sensitivities are not available. Please attempt to tailor or narrow empiric antibiotic therapy once culture and sensitivity results return. Lehigh Valley Hospital's antibiogram, updated annually, is found in the parenteral antibiotics section of the patient chart.

## *IV -> PO ANTIBIOTIC CONVERSIONS*

The Pharmacy Department strongly encourages conversion to oral antibiotic therapy as soon as clinical conditions permit. Listed below are some common conversions.

| IV | PO |
|---|---|
| Ciprofloxacin | |
| 200mgQ12H ($26.00/day) | 500mgQ12H ($5.60/day) |
| 400mgQ12H ($50.00/day) | 750mgQ12H ($9.52/day) |
| Clindamycin | |
| 600mgQ8H ($4.86/day) | 150mgQ6H ($2.64/day) |
| 900mgQ8H ($6.60/day) | |
| Cefazolin | Cephalexin |
| 1GmQ8h ($3.00/day) | 500mgQ6-8H ($0.56/day) |
| Unasyn | Augmentin |
| 1.5gmQ6H ($22.00/day) (ampicillin/SB) | 250mg TID ($4.74/day) (amox/clavulanate) |
| 3.0gmQ6H ($41.60/day) | 500mg TID ($7.08/day) |

## *ONCE DAILY AMINOGLYCOSIDE DOSING*

Patients prescribed gentamicin or tobramycin should be considered for once daily dosing unless excluded by the criteria stated below.

1. Patient neutropenic (ANC < 1000)
2. Suspected or documented treatment of endocarditis
3. Patient has cystic fibrosis, cirrhosis, ascites, or myasthenia gravis
4. Pregnant or nursing mothers
5. Patients on dialysis or ARF patients
6. Aminoglycoside used for synergy for staph or enterococcal infection
7. Patients with history of drug-induced ototoxicity
8. Special considerations
   a) amputee
   b) one kidney
   c) concomitant nephrotoxic drugs

Determination of Dose

a) Calculate CrCl
b) Determine dosing weight
   1) Use total body weight (TBW) if not obese (> 20% over IBW)
   2) For obese patients take 40% of excess weight add to IBW
c) Dose based on weight + CrCl
   1) ≥ 50ml/min — 5mg/Kg/Q24H
   2) 30-49ml/min — 5mg/Kg/Q36H
   3) 20-29ml/min — 5mg/Kg/Q48H
   4) < 20ml/min — 2mg/Kg x1

Monitor

~~a) Obtain SCr Q2-3 days~~
**b) Obtain RANDOM level 6-8 hours prior to next dose after initiation of therapy.

*Please note: Once daily dosing does NOT require traditional peak and trough levels.

c) If level < 1.0 mg/dl continue therapy, obtain level q 5 days. If level > 1.0 mg/dl and < 3, increase interval by 12 hours.

d) Monitor fluid status, cardiac function, cultures and sensitivities.

## *HELP CONTROL RESISTANT ENTEROCOCCUS*

Prescribers are urged to consider the following guidelines for all use of vancomycin to decrease the possibility of emergence of vancomycin-resistant S.aureus and/or S. epidermidis.

CDC guidelines for Vancomycin use:

1. Treatment of documented or suspected** serious infections with a resistant gram positive organism (i.e. methicillin resistant Staph aureus-MRSA, or methicillin resistant Staph epidermidis-MRSE).
2. Treatment of a staph/strep or other gram positive infection in patients with serious allergy to penicillin or cephalosporin **(described as hives and/or respiratory distress and/or collapse within minutes of a dosage of a penicillin or cephalosporin): OR**, if history of the reaction is unobtainable.
3. PO vancomycin for antibiotic-associated enterocolitis (due to c.difficile colitis) which has failed to respond to metronidazole **OR** is severe and potentially life threatening.
4. Use as surgical prophylaxis in patients with a serious allergy to penicillin or cephalosporin (described as hives and/or respiratory distress and/or collapse within minutes of a dosage of a penicillin or cephalosporin): **OR**, if history of the reaction is unobtainable.
5. Endocarditis prophylaxis as outlined by the American Heart Association for penicillin or cephalosporin allergic patients.

## *NON-FORMULARY DRUGS*

If an order is written for a non-formulary drug, the pharmacy will provide an alternative via an automatic substitution list. If a substitution is not available the physician will be contacted with a recommendation of a formulary equivalent or alternative, if possible. If no equivalent is available and the medication is medically necessary, it will be obtained and dispensed as soon as it is available. The acquisition of the non-formulary item may be delayed by > 24 hours since the medication will need to be ordered from an outside pharmacy or wholesaler. If a non-formulary drug is brought by the patient from home, the pharmacy will dispense the patient's supply of the medication to the nursing unit upon receipt of a complete physician's order stating, "patient may use own medication." The complete name of the non-formulary medication, strength, route and frequency must be indicated. The pharmacy will not dispense any formulary items brought from home by patients.

## *PARENTERAL NUTRITION ORDERS*

Lehigh Valley Hospital has a separate parenteral nutrition order sheet which includes complete ingredient listings for the available standard total parenteral nutrition (TPN) and standard peripheral parenteral nutrition (PPN) solutions, available in 1 and 2 liter bags. These standard solutions can be ordered at any time. Customized solutions can be ordered as well, if required. All parenteral nutrition is prepared for a 24 hour period of time.

All parenteral nutrition orders MUST be received in the main pharmacy by 1500, to allow for adequate preparation time for the solutions to be hung at 2100. Late orders will NOT be honored after 1500. These late orders will be considered as parenteral nutrition orders for the following day. The ordering physician will be notified by a pharmacist if this delay will occur.

All new parenteral nutrition orders and any changes to an already existing parenteral nutrition order require a completely rewritten parenteral nutrition order. Also a completely

rewritten order is required every 7 days to assure that a current active order is in the patient's chart at all times, even if the chart is broken down. Parenteral nutrition solution orders are valid for a 48 hour period of time. Following 48 hours, the physician may reorder the same solution on a regular blue physicians order sheet by writing "SAME TPN", "RENEW TPN" or a similar statement if no changes to the parenteral solution are required. If the required 48 hour renewal (as above) or a completely rewritten parenteral nutrition order is not received by 1500, Dextrose 10% will be hung in its place.

## *INJECTABLE MULTIVITAMIN SHORTAGE*

There is currently a national shortage of adult parenteral multivitamin formulations, created by the discontinuation of one manufacturer's product and the exhaustion of the current equivalent product, Astra's MVI-12. Currently, LVH has adopted the following guidelines, based on suggested treatment options provided by the American Society of Parenteral and Enteral Nutrition:

1. Use oral multivitamin supplementation whenever possible. Oral liquid formulations are available for those patients with feeding tubes.
2. Preferential use of parenteral multivitamins for all parenteral nutrition patients. This group will receive multivitamin infusion on Tuesday, Thursday, Saturday and Sunday while supply lasts, or until the shortage subsides.
3. For all other parenteral multivitamin requests (and when current parenteral nutrition multivitamin stores are exhausted), the pharmacy has been approved by the Therapeutics Committee to automatically substitute the following:
   - Folic Acid 1mg injection
   - Cyanocobalamin 100mcg injection
   - Thiamine 100mg injection

This policy will continue until the current shortage has ended. It should be noted that injectable ascorbic acid is also available for use, as indicated.

## *ALBUMIN SHORTAGE*

Currently, there is an indefinite shortage of 5% and 25% albumin. The most common reason for use of 5% albumin is to increase BP or urine output postoperatively once the patient has been given as adequate fluid challenge with a crystalloid such as NSS or lactated ringers. After the patient has received usually a maximum of 2 L of crystalloid the physician may turn to a colloid for effect, since colloids remain in intravascular space and decrease risk of fluid overload leading to peripheral and pulmonary edema.

25% albumin is used to maintain or increase oncotic pressure when a patient's serum albumin is < 2gm/dl, with large weepy wounds, or to maintain cerebral perfusion pressure in patients with subarachnoid hemorrhage and pancreatitis.

Hetastarch 6% 500ml should be recommended as a alternative for 5% albumin 250 or 500ml in the following situations:

1. Platelet count is > 50k, since there is a caution with the use of Hetastarch with thrombocytopenia.
2. Normal renal failure. If patient still has any renal function, hetastarch can be used.
3. No severe bleeding disorders, such as ITP, etc.
4. Not a CNS (head injury patient). Hetastarch can cause an increase in ICP's.

Usual adult dose of Hetastarch (500ml Hetastarch = 500ml 5% Albumin): 30-60gm (500-1000ml)) Hetastarch over 1-2 hours. Usual daily dose = 20mg/kg/day to a maximum of 1500ml/day. Slight lab abnormalities have been seen with platelet

function, PT and PTT, not associated with an increase in clinical bleeding, with volumes of > 1500ml/day.

In severe renal impairment (est. CrCl < 10ml/min), use the same initial dose but subsequent doses should be reduced by 25-50%.

Hetastarch Precautions and Contraindications include:

1. Caution in patients with thrombocytopenia.
2. Caution with patients with a history of liver disease with underlying elevated bilirubin.
3. Contraindication for the management of cerebral vasospasm associated with subarachnoid hemorrhage.
4. Contraindication in patients with severe bleeding disorders, renal failure with oliguria or anuria.

Hetastarch Adverse Effects include:

1. Increased SED rate.
2. May interfere with platelet function and cause transient prolongation of PT, PTT and clotting times.
3. May slightly decrease platelet/ hemoglobin concentrations due to dilutions.
4. May increase serum amylase but is not associated with pancreatitis.

For your information, the hospital costs for colloids are as follows:

| | |
|---|---|
| Albumin 5% 500ml | $90.00 |
| Albumin 5% 250ml | $45.00 |
| Albumin 25% 100ml | $90.00 |
| Albumin 25% 50ml | $45.00 |
| Hetastarch 6% 500ml | $31.00 |

Please limit your prescribing of Albumin 5% whenever possible. If patients truly necessitate Albumin 5% administration, please indicate the reason for use on the order to avoid having the pharmacist calling the prescriber. If possible, attempt to use lower volumes, such as 250ml vs 500ml Albumin for first line and monitor effects. The patient may only require 250ml to achieve the desired outcome and this would help preserve our presently low stock.

A concerted effort by all staff will assist the hospital in reserving our present supply for our critically ill patients who truly need Albumin therapy.

## *ANTINEOPLASTIC ORDER SHEET*

An order sheet addressing chemotherapy, fluid replacement, and pre and post antiemetic therapies is available. The sheet includes details regarding the patient's necessary demographics, laboratory vascular access, and investigational protocol information. The order sheets are available on 6C, the oncology unit.

## *IV DILTIAZEM CRITERIA FOR USE*

IV Diltiazem was added to the Lehigh Valley Hospital Formulary for use in SVT as a second-line agent to IV Verapamil.

IV Diltiazem intermittent boluses and/or continuous infusion may be administered after meeting <u>at least one</u> of the following criteria:

1. <u>Failure</u> of I.V. verapamil.

Failure defined as inadequate HR control after a total cumulative IVP verapamil dose of 20mg followed by a continuous infusion of verapamil 10mg/hr x 1 hour.

2. And/or <u>Intolerance</u> to a 5mg I.V. verapamil dose defined as:
   a. A decrease in systolic blood pressure of 10mmHg from baseline or < 90mmHg <u>and</u> symptomatic. **OR**
   b. New onset or worsening CHF signs and symptoms.
   c. Documented allergy to Verapamil Hcl.

3. Baseline symptomatic hypotension < 90mmHg requiring pressor agents or,

EF $\leq$ 35% and/or PCWP $\geq$ 20mmHg.

4. I.V. Diltiazem will not be used as a p.o.substitute in NPO patients.

*** ORDERS MUST STATE REASON FOR USE ON THE PHYSICIAN'S ORDER SHEET BEFORE THE DRUG CAN BE DISPENSED.**

**IF A REASON IS NOT GIVEN, THE PHYSICIAN WILL BE CALLED TO CLARIFY THE ORDER ACCORDING TO THE THERAPEUTICS COMMITTEE APPROVED CRITERIA.**

Usual Verapamil dosing: 5-10mg IV bolus over at least 2 minutes followed by a continuous infusion of 5mg/hr. Dose titration to control ventricular rate below 100 beats per minute should be done q15-30 minutes at 2.5-5mg increments.

## *ALTERNATIVES TO SUBLINGUAL NIFEDIPINE*

Based on recent literature addressing the risks of the sublingual "bite and chew" route of immediate release nifedipine for acute hypertension, the Therapeutics Committee developed the following adult hypertension algorithm. (see attachment)

## *ADVERSE DRUG REACTION (ADR) REPORTING*

The standards for the Medical Staff an Pharmaceutical Services established by the Joint Commission for the Accreditation of Healthcare Organizations (JCAHO) encourages hospitals to report adverse reactions to all food and drugs administered to patients. In an event of an adverse drug reaction, either suspected or documented, an ADR form should be completed. A copy of the ADR form can be found in the formulary in Section 5, Appendix II. The ADR forms are available on all nursing units for your use. Please complete and return forms to the Pharmacy Department. The ADR information can assist the staff in identifying trends or patterns of ADR's that require further investigation, provide information necessary for making formulary decisions and recommend new drug administration guidelines and find topics for drug use review.

Through combined efforts of our house staff and hospital personnel the ADR reporting system can help to improve overall patient care.

## *DRUG REPRESENTATIVE POLICY*

Lehigh Valley Hospital has recently strengthened its policy regarding pharmaceutical company representatives. Representatives may meet with physicians, nurses, pharmacists, etc. by appointment only. Representatives are not permitted to interrupt staff members in the halls, on nursing units, in the cafeteria, etc. All visits require a previously scheduled appointment. The policy has been implemented in an attempt to maintain better control of formulary items as well to contain rising costs of medications. Your cooperation with the hospital policy is appreciated. Please refer to your individual departments for more information.

## *PHYSICIAN ORDER SHEET CHANGE*

As of July 1, 1997 it will be necessary for physicians to specify " "brand necessary" in order for a brand drug to be dispensed. This is a change from LVH's previous policy which authorized brand drug dispensing when the drug was simply underlined on the order sheet which led to confusion.

However, the old order sheets which read, "authorization is hereby given to dispense the generic or chemical equivalent unless specifically underlined by the physician" will remain in circulation until the supply is exhausted. New forms will read, "authorization is hereby given to dispense the generic or chemical equivalent unless specified as brand necessary by the physician.

## *GENERAL AND CLINICAL PHARMACY SERVICE*

| Location | Service | | Phone # | Beeper # | Hours |
|---|---|---|---|---|---|
| **Cedar Crest & I-78** | | IV Room | 8879 | | 24 hrs |
| | | Main Pharmacy | 8886 | | 24 hrs |
| | | Clinical Pharmacy Office | 8884 | | |
| **Unit Based Pharmacy Services** | | | | | |
| MICU/SICU/STU | | UBP | 0281 | | M-F: 7:30am-10:00pm |
| ACU/PCU/3C/BU | | UBP | 0258 | | M-F: 7:30am-4:00pm |
| OHU/TOHU | | UBP | - | 9889 | M-F: 7:30am-4:00pm |
| 4A/4B/4C | | UBP | 0246 | | M-F: 7:30am-4:00pm |
| TTU/5B/5C | | UBP | 0273 | | M-F: 7:30am-10:00pm |
| 6A/6B/6C | | UBP | 0229 | | M- F: 7:30am-10:00pm |
| 7A/7B/7C | | UBP | 0213 | | M-F: 7:30am-10:00pm |
| **17th & Chew Pharmacy** | | | | | |
| | | Main Pharmacy | 2250 | - | M-F :7:00am-10:00pm |
| | | NICU | 2342 | | |
| | | 4S Hospice | 2331 | | |
| | | 4T MBU | 7725 | | |
| | | Adl. Psych | 2766 | | |
| | | 6N | 2788 | | |
| | | 6S | 2347 | | |
| | | IV Room | 2744 | | |
| | | TSU (UB) | 3300 | 4738 | |
| **Multi-Purpose Area JDMCC** | | Outpatient Chemo | 0667 | 1164 | M-F: 7:30am-4:00pm |
| **Health Spectrum Pharmacy** | | Employee Prescription | 8444 | | M-F: 7:30am-5:30pm<br>Sat: 9:00am-1:00pm |

misc\druginfo.res

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***Medical Staff Progress Notes*** **is published monthly to inform the Lehigh Valley Hospital Medical Staff 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 402-8590.**
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**M/F/H/V**