



Fourth Quarter 2009
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P&T Update

Formulary Addition/Deletion

- Indinavir formulary deletion – Approved
- DuoNeb® (albuterol 2.5mg and ipratropium 0.5mg/3ml) addition – approved. Automatic therapeutic exchange of albuterol 2.5mg and ipratropium 0.5mg to DuoNeb® – Approved
- Potassium Chloride (MicroK®) Formulary deletion- approved. Automatic therapeutic exchange of Micro K® capsules 8 & 10 mEq to generic 10mEq KCL tablets - Approved
- Daclizumab (Zenapax®) was deleted manufacturer discontinued- Approved
- Timentin®(Ticarcillin-Clavunate) deleted. Approved
- Levemir (Detemir®) – Addition of Levemir not deemed necessary at this time – Approved

Board Certified Pharmacotherapy Specialist Pharmacist (BCPS)- Nishat Faruqui, R.Ph., Pharm. D., BCPS

Board of Pharmaceutical Specialties (BPS) is recognized as the single agency that operates across the pharmacy profession to provide specialty certification of pharmacists. It recognizes, sets standards for, and provides certification in specific clinical specialties, pharmacotherapy being one of them BPS certification is a voluntary process by which a pharmacist's education, experience, knowledge and skills in a particular practice area are confirmed as well beyond what is required for licensure.

Pharmacotherapy is that area of pharmacy practice that is responsible for ensuring the safe, appropriate, and economical use of drugs in patient care. The pharmacotherapy specialist has responsibility for direct patient care, often functions as a member of a multidisciplinary team and is frequently the primary source of drug information for other healthcare professionals.

Congratulations again, Nishat!



Policies & Procedures Update

- The antibiotic subcommittee recommended to change flucytosine to the restricted list – Approved.
- Updated antibiotic restriction guidelines which include Meropenem, Colistin and Tigecycline unrestriction in the MICU pursuant to attending physician approval for 72 hours only and meropenem unrestriction in the SICU – Approved.
- Lorazepam, midazolam, fentanyl and morphine continuous infusion expansion to all nursing units in *palliative care* patients only.
- Hypertonic saline 23.4% is restricted to critical care, PACU and ED-Critical Care. This should be used as a last line agent. Rate of administration has been added to the guideline. Hypertonic saline must be administered via central line only.
- Standard administration time exceptions are vancomycin, colistin, aminoglycosides, and perioperative antibiotics. Dosing of vancomycin, colistin, and aminoglycosides will be around the clock after the first dose administration time.
- Dosing of perioperative antibiotics will be around the clock from pre-operative or intra-operative dose, whichever is more recent.



New Indication for Gardasil®:

HPV is currently regarded as one of the most common sexually transmitted disease, infecting approximately 20 million Americans with 6.2 million newly infected each year. About 90% of genital warts are caused by HPV (types 6 and 11). Merck conducted an efficacy study showing that out of roughly 4,000 study patients, Gardasil was able to prevent genital warts in 90 percent of the study population. October 16, 2009, Gardasil was approved by the FDA for the indication of preventing genital warts due to HPV (human papillomavirus) types 6 and 11 in boys and men ages 9 to 26.

Previously, Gardasil was approved in 2006 in females for the prevention of HPV types 16 and 18 which are major causes of cervical, vulvar, and vaginal cancer. It has been reported that approximately 70% of cervical cancers are caused by HPV types 16 and 18. Although there currently is no medical cure for HPV, Gardasil is approved as a preventative measure. Dosing for the prevention of genital warts in males is the

same as that in the prevention of cancer in females which is three doses administered intramuscularly over a 6 month period. With the administration of Gardasil, hopefully a decline in men and women needing treatment for genital warts will be seen as well as a decline in cervical cancers.

Most common adverse reactions include fever, swelling and pain at injection site. Any adverse events should be reported to Merck or Vaccine Adverse Events Reporting System (VAERS) at www.vaers.hhs.gov.

Genital HPV Infection - CDC Fact Sheet.
www.cdc.gov/STD/HPV/STDFact-HPV.htm#common.
April 10, 2008. Accessed October 30, 2009.

FDA approves new indication for Gardasil to prevent genital warts in men and boys.
www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm187003.htm. October 16, 2009. Accessed October 30, 2009.

Contributed by Ricky Moy, Pharm.D. Candidate 2010

Cardiovascular Risk Gender Gap Shifts

It is a commonly held belief that men of a similar age are at a much higher risk than women for developing cardiovascular events. A recently published trial in the Archives of Internal Medicine sheds light on the possibility of a big shift in trends that, up until now, have been thought to be largely unchanged.

A study was undertaken by the National Center for Health Statistics (NCHS), a branch of the Centers for Disease Control (CDC), to analyze the data from the National Health and Nutrition Examination Surveys (NHANES). This was a cross-sectional study to investigate the cardiovascular risk in non institutionalized patients aged 35-54. The study looked at the risk from 1988-1994 and compared it to the risk from 1999-2004. Data was collected through surveys and interviews. A total of 60,200 patients were included in this study between the two arms.

The most stunning statistic collected is the average risk of MI in women verse that in men. In 1988-1994, the reported risk in men to women were (2.5% vs 0.7%, $P < 0.01$). In 1999-2004, the reported risk in men vs. women were (2.2% vs. 1.0%, $P < 0.01$). This represents a 62.3% relative risk reduction in men, and a 38% relative risk increase for women when compared to the other. Other values such as the average Framingham coronary risk score (FCRS) also declined for men (8.6% vs. 8.1%, $P = 0.7$) while the same scores increased in women (3.0% vs. 3.3%, $P = 0.02$) between 1988-1994 and 1999-2004. Furthermore, every individual component of the FCRS except rate of diabetes for men either stayed the same or improved, while in women, the only score to improve was the mean level of HDL.

It is under debate as to why the data is the way it is. Some blame trends that point to a lack of urgency in treating hypertension in women verse treating even

pre-hypertension in men as a large contributory factor and the successfulness of the anti-smoking campaigns in reducing the number of men who are smoking, thereby indirectly decreasing their risk for cardiovascular disease. Even though this study is restricted in its limitations, an



ounce of prevention is still worth a pound of cure. The absolute risk may seem small but 1 out of 4 deaths in America is due to heart attacks, so every reduction in average risk results in many lives saved. Although the absolute risk is still higher in men, in light of this data, intensified efforts in screening for and treating vascular risk factors in women may now be warranted.

Contributed by Ben Tso, Pharm.D. Candidate 2010

References:

Towfighi, T., Zheng, L., & Ovbiagele, B. (2009). Sex-Specific Trends in Midlife Coronary Heart Disease Risk and Prevalence. *Arch Intern Med.* 2009, 169(19), 1762-1766.

Patterns: For Heart Attacks, Shifts in Gender Gap. (2009, Oct 27). *The New York Times*. Retrieved From: www.nytimes.com/2009/11/03/health/research/03patt.html?_r=1&ref=health

Heart Disease and Stroke Statistics – 2009 Update (2009). *American Heart Association*. Retrieved From: www.americanheart.org/downloadable/heart/123783441267009Heart%20and%20Stroke%20Update.pdf

Meet the New Pharmacists!

Gener Eric Cruz, Pharm.D., is the new staff pharmacist joining the evening shift. He recently graduated from Rutgers University on May 2009. He was a previous student of Dr Chu on October 2008. Additionally, he previously worked as a pharmacy technician in CVS and Drug Fair Pharmacy and as a camp counselor in Lakelands YMCA. He is very excited to join the UMDNJ pharmacy team.

Ronak Kachhy, Pharm.D., is a new staff pharmacist joining the evening shift. He graduated from Rutgers University in May 2009. He has previously worked at CVS and Target pharmacies. He is looking forward to starting his hospital career at UMDNJ.



Mid-Night Shift Pharmacy Staff Has Been Nominated for the Five Star Service Award, 4th Quarter 2009

The night staff of the SICU loves the mid-night shift Pharmacy team and they want everyone to know it. They credit the pharmacists and technicians with being prompt, courteous and sporting an excellent, upbeat attitude. This special group never fails to go the extra mile when it comes to providing excellent patient care, making quick deliveries and always being helpful. Hats off to these extraordinary individuals!!!

Honesty, integrity, diligence; this is the code which dictates our practice at UMDNJ pharmacy. By working hand in hand, we strive to deliver the highest level of patient care on the the third shift. By the virtue of cooperation between pharmacists and technicians we are able to promptly and accurately deliver a high standard of pharmaceutical care to our patients. We understand that we not only serve the patients who visit our hospital, but five star service is based on the excellence in customer service among all involved in health care delivery. Not only do we wish to fulfill our responsibilities, but it is imperative that we do so with both a positive and constructive attitude. Working the

graveyard shift can be challenging, but on the midnight shift, we are more a family rather than just co-workers. As a team, we are able to make it through the many obstacles we may come to encounter, in order to finish our shift on a successful note. It is with the constant support and reinforcement by our management team,

that our staff at midnight is able to strive for perfection in delivering excellent patient care and customer service to all we may encounter. Although it is our responsibility to work diligently, we would like to thank those who continue to acknowledge our hard work, and especially those who believed in us enough to nominate our shift for such a prestigious award.

Patient Satisfaction Survey

Tell Us What You Think!

Contributed by Mid-night shift pharmacy staff

Pharmacy Staff (Mid-night Shift-From Left to Right): Lydia Raboy, Kaiser Sadiq, Maria Rodrigues, Danilo Soliza, Mary Solimon, RPh, Christina Ninan, Susan Chandy, Edgardo Alvarez (Jo Jo), Harry Cuartas, Janice Monticer, Joseph Licata, RPh (not present in the picture)

Nominated by the SICU (night shift)



FDA Authorizes Emergency Use of Intravenous Antiviral Peramivir for 2009 H1N1 Influenza

On Oct. 23, 2009 FDA had authorized an emergency use of Peramivir, investigational neuramidase inhibitor, for patients suspected or confirmed of H1N1 infection. Emergency use of authorized Peramivir is only limited to hospitalized patient who are under supervision of licensed clinicians. Peramivir is manufactured by BioCryst pharmaceutical and it is currently in phase 3 clinical trials and the efficacy and safety of Peramivir has not yet been fully established. Peramivir is not for treatment of seasonal influenza A and B virus and it should not be used for uncomplicated outpatient with acute H1N1 infection or for prevention of influenza. The standard dose of Peramivir is 600 mg once a day,

administered intravenously over 5 to 10 days. Common adverse reactions observed from clinical trials were: diarrhea, nausea, vomiting and neutropenia.

Currently, only Tamiflu® (oseltamivir) and Relenza® (zanamivir) are FDA approved for the use of suspected or confirmed H1N1 infection. Tamiflu® is primarily

given orally and Relenza® is primarily given as an oral inhalation and there is currently no FDA approved intravenous drug for treatment of H1N1 infection. Therefore, Peramivir IV should be given when oral or inhaled route is ineffective or not feasible.

In order for clinicians to request emergency use of Peramivir, clinicians must read and understand the content of FDA issued Emergency Use Authorization of Peramivir IV: Fact Sheet For Health Care Providers and comply with terms and conditions of EUA. To request Peramivir under Emergency Use Authorization go to: www.cdc.gov/h1n1flu/eua. EUA will be effective until declaration of emergency is terminated.

FDA Press Announcement: FDA Authorizes Emergency Use of Intravenous Antiviral Peramivir for 2009 H1N1 Influenza for Certain Patients, Settings. Food and Drug Administration. www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm187813.htm. Published October 23, 2009. Accessed October 29, 2009.

Emergency Use Authorization of Peramivir IV: Fact Sheet For Health Care Providers. Food and Drug Administration. www.fda.gov/downloads/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/UCM187811.pdf. Published October 23, 2009. Accessed October 29, 2009

Contributed by Marcus J. Lee, PharmD. Candidate 2010



Employee of the 4th Quarter

Muhammad Usman

Mild mannered, soft spoken, surprisingly funny Muhammad Usman, RPh, is the pharmacy departments Employee of the 4th Quarter.

Muhammad got his nominations from three of his coworkers and they all agree that "his exemplary performance is a pattern to all of us." Muhammad works hard regardless of the circumstances. He is

always ready to solve any problem and most of all he is pleasant, always cooperative and doesn't complain. These were the words taken directly from his nomination forms.



Muhammad, keep up the good work. You are what we all strive to be. Congratulations, this was well deserved.

Contributed by Tara R Shaw
Lead Pharmacy Tech



Jerry Appelbaum's Retirement Party December 2009

Congratulations On Your Retirement!

Twelve years have passed and now it's time for you to enjoy the next chapter in your life. We would like to thank you for your continuous hard work over the years, your loyalty to the UMDNJ and the professional working relationship we have had. You will be sorely missed and we wish you a long, happy and healthy retirement. (Picture from left to right, Penny Appelbaum (Jerry's wife), Jerry Appelbaum, RPh, Al Ortega, RPh, Mr. Andre' Emont, MS, RPh, Director of Pharmacy. Picture shown: Jerry is receiving a plaque from Mr. Emont)

