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ADULT MEDICINE PRACTICE AND RESEARCH NETWORK

AMERICAN COLLEGE OF CLINICAL PHARMACY

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MESSAGE FROM THE CHAIR

Author: Lindsay M. Arnold, Pharm.D., BCPS

As I stop and think about all that I've learned in these few months serving as chair for the Adult Medicine PRN, one theme continues to come to mind – the commitment and dedication of our members and a desire to recognize their colleagues for all the work they do. None of the great work our PRN has been able to accomplish would be possible without the willingness of our members to take time from their busy schedules to get involved. Each of our committees has been busy at work since the October meeting in Austin and I wanted to take this opportunity to highlight a few of their accomplishments.

For the past few years, Jessica Starr has served as the chair and organizer for the Walk Rounds committee. I want to take this opportunity to thank her for her commitment and dedication to this process. This group reviews all abstracts that will be presented during ACCP meetings, identifies topics that may be of interest to AMed PRN members and organizes a group of our members to walk around to each of the presenters, asking about their research. This has been a great way to encourage our colleagues and also an opportunity to engage people who may not be Adult Medicine PRN members. This year the committee has been charged with developing an awards criteria and choosing a best poster award on behalf of the AMed PRN. This will serve as another means of encouraging and recognizing the great work our colleagues are doing.

This year the Nominations Committee was charged with streamlining the number of awards to be given, along with working on ways to increase the number of nominations received. The details and timeline for this year's awards will be coming out shortly, so please stay tuned and be thinking now about colleagues you want to recognize. We know they're out there and we want to hear about all of them! This year's awards will include:

- Adult Medicine PRN Outstanding Paper of the Year
- Adult Medicine PRN Mentoring Award
- Adult Medicine PRN Clinical Practice Award
- Adult Medicine PRN Distinguished Investigator Award

A new and exciting award that the nominations group is working on is the Practitioner Recognition Award. The details for this award are still being developed but the goal is to encourage clinicians who otherwise may not attend an ACCP meeting by providing meeting registration.

With the change in the spring meeting format, we've discussed a number of ways to use the additional funds available to our PRN. Some of the funding will be allocated to our numerous awards, allowing us to provide a monetary award as well as increase the number of awards we will be offering. Additionally, there are plans for developing a pre-meeting symposium at the 2012 Annual ACCP meeting. A survey will be coming out soon to all AMed members to learn what topics are of key interest to our members and identify the PRNs with which our members would most be interested in collaborating with.

In closing I want to say thank you to the AMed PRN officers, committee chairs and members for all they do. Working with all of these people has been an amazing experience. I would encourage all of you to get involved any way you can. As the time for PRN officer nominations is here, now is the perfect opportunity to step up and get involved. I promise you won't regret it.

PRN OFFICERS:

- **Chair:**
  Lindsay M. Arnold
  Lindsay.Arnold@bmc.org
- **Chair-elect:**
  Nancy Yunker
  nyunker@vcu.edu
- **Secretary/Treasurer:**
  Melissa Badowski
  Badowski@uic.edu
- **Board Liaison:**
  Julie Wright Banderas
  banderasj@umkc.edu

NOTABLE ACCOMPLISHMENTS AND PUBLICATIONS

Publications:

Kiser KL, Badowski ME. Risk factors for venous thromboembolism in patients with human immunodeficiency virus infection. Pharmacotherapy. 2010;30:1292-1302.

Dobesh PP. SPIRIT IV: New evidence the everolimus (XIENCE V®) drug eluting stent (DES) is superior to other DES at least in some patient groups, but questions remain. ClotCare Online Resource, http://www.clotcare.org/spirit_iv_drug_eluting_stents.aspx. November 2010.

Dobesh PP. The importance of prophylaxis for the prevention of venous thromboembolism in at-risk medical patients. Int J Clin Pract 2010;64:1554-62.

Smith KM, Sorensen T, Connor KA, Dobesh PP, Hoehns JD, Marcus KB, Pass SE, Seybert AL, Shapiro NL. Value of conducting pharmacy residency training – The organizational perspective. Pharmacotherapy 2010;30:490e-510e.

Hardy YM, Jenkins AT. Hypertensive crises: urgencies and emergencies. US Pharm 2010;36(3):Epub.

Kehr HA, Griffiths CL, Haynes W, Everhart S, Messick BH. Evaluation of stress ulcer prophylaxis in a family medicine residency inpatient service. JCOM 2011;18(3):102-6.

Resman-Targoff BH, Cicero MP. Aggressive treatment of early rheumatoid arthritis: recognizing the window of opportunity and treating to target goals. Am J of Manag Care 2010; 16:S249-58.

Other Accomplishments:

Briand M. Preceptor of the Year for the University of Florida College of Pharmacy, Inpatient Experiences, 2010-2011.

Dobesh P. Educator of the Year Award for the University of Nebraska College of Pharmacy, 2010.

Dobesh P. Impact of ethnicity on platelet function and response to aspirin and clopidogrel. Mentor/Co-investigator, $10,000 funded, American Academy of Colleges of Pharmacy, 2010.

CONGRATULATIONS TO ADULT MEDICINE PRN MEMBERS RECEIVING BOARD CERTIFICATION IN PHARMACOTHERAPY

Rosalie Baez-Rodriguez
Mary Barna
Ann Biehl
Mary Elizabeth Briand
Luigi Brunetti
Kasey Bucher
Katie Buehler
Jane Burian
Mei Chang
Xian Jie Chen
Allison Chilipko
Leah Crow
Vi Do
Ryan Dull
Wasim El Nekidy
Amber Elliot
Jane Frumin
Michael Gabriel
Tina Gossett Hipp
Maria Guido
Levi Hall
Kirsi Hearon
Megan Herink
Renee Holder
Marcella Holland
Stephanie Huff
Lauren Hynicka
Christie Jones
Sarah Jones
Jon Knezevich
Marianne Koenig
Sandy Liu Moreau
Rebecca Maxson
Maxine Ng
Vinhkoa Nguyen
Carlene Oliverio
Trang Pham
Jennifer Phillips
Sanchita Sen
Bhavik Shah
Hanady Sharabash
Jennifer Slavens
Benjamin Staley
Dorothy Thompson
Dale Tucker
Ashley Tyler
Christina Vargas
Angie Veverka
Amy Vyhnalek
Dawn Whiting
Kristen Wilson

CONGRATULATIONS!

CLINICAL PRACTICE SPOTLIGHT

DENVER HEALTH EASTSIDE-ADULT INTERNAL MEDICINE CLINIC

BY: SARAH ANDERSON, PHARM.D.

Drs. Sarah Anderson and Joel Marrs, Assistant Professors at the University of Colorado School of Pharmacy, practice clinically at the Denver Health Eastside Adult Internal Medicine Clinic in Denver, Colorado. The clinic is located in the second oldest Community Health Center in the United States, The Bernard F. Gipson Sr. Eastside Family Health Center, which opened in 1966.

This new partnership between the School of Pharmacy and Denver Health was established in 2009 when the two institutions teamed up to hire two full-time Assistant Professors who jointly provide 1.0 FTE of clinical services at the Eastside Adult Internal Medicine Clinic. In addition to a newly -hired Anticoagulation Clinical Pharmacy Specialist, Drs. Anderson and Marrs became the first Ambulatory Clinical Pharmacy Specialists in the Denver Health system.

In the Adult Internal Medicine Clinic, Drs. Anderson and Marrs provide direct patient care during 4 appointment sessions per week: 2 sessions of hypertension/resistant hypertension clinic and 2 session of anticoagulation clinic. In the hypertension clinic, Drs. Anderson and Marrs are responsible for measuring and evaluating patients' blood pressures and for making appropriate medication adjustments related to hypertension. In the anticoagulation clinic they perform point-of-care INR testing in order to evaluate and manage patients' warfarin therapy. In addition to these in-person patient visits, Drs. Anderson and Marrs perform telephone diabetes management for antihyperglycemic medication titrations and telephone hospital discharge follow-up. Pharmacotherapy consults are provided as well.

This practice site serves as a rotation site for Denver Health PGY1 and University of Colorado Ambulatory Care/Family Medicine PGY2 residents as well as being an APPE site for P4 students from the University of Colorado School of Pharmacy.

The practice site also serves as a resource for clinical research and there currently are several ongoing retrospective and prospective studies in various stages of completion on which Drs. Anderson and Marrs are the primary and co-investigators. One of the newest ventures within the clinic is team participation by the University of Colorado School of Pharmacy and Denver Health in the Health Resources and Services Administration (HRSA) Patient Safety and Clinical Pharmacy Services Collaborative (PSPC) 3.0. Drs. Anderson and Marrs are working within their clinic and with the outpatient pharmacy to target patients who have uncontrolled diabetes (defined as an A1C > 9%) to achieve better glycemic control through medication titrations, diabetes, education, and improvements in medication adherence.

If you have an interesting or novel practice site that you would like to share with the Adult Medicine PRN please contact badowski@uic.edu for inclusion in the Fall 2011 Newsletter.

CLINICAL CORNER:

MONOAMINE OXIDASE INHIBITORS: NOT HISTORY YET!

BY: BONNIE LABDI, PHARM.D.

It is a rare event when we come across a patient actually taking a monoamine oxidase inhibitor (MAOI). We learn about all of the drug interactions and adverse effects associated with the use of this class of drugs throughout our pharmacy school career. For the majority of us, all of this knowledge is neatly tucked away in our "must know but will probably never come across" database. I for one believe that knowledge that is never used or reviewed can be buried amongst all of the everyday facts that we need to perform well in our professional as well as personal lives. For this reason, I thought a review of an actual situation that occurred with one of my patients would serve as a refresher for those of us who have never had to manage a patient receiving MAOI therapy.

The patient was a 58 year-old woman with a primary diagnosis of follicular lymphoma which was in remission. She was admitted to our hospital on a Friday afternoon with a symptomatic urinary tract infection, abdominal pain, and failure to thrive. Her previous medical history was remarkable for Parkinson's disease, hypercholesterolemia, GERD, and follicular lymphoma. She was on a handful of medications for the above-mentioned health problems. Medications for her Parkinson's disease were entacapone, carbidopa -levodopa, and selegiline. Our inpatient pharmacy did not carry selegiline (we rarely had patients taking this or any other MAOI), so the patient's family member was asked to bring in her home supply of selegiline. As (I suspect) is true with many order entry systems, patient's home medications are manually entered into the pharmacy system as "patient's own med" and because of this, they are quite often <u>not</u> included in the screening for interactions or warnings.

The patient's selegiline as well as all of her other medications were continued. She was started on ceftriaxone for her UTI and was given intravenous fluids. Over the weekend, the inpatient attending physician noted that the patient continuously demonstrated a flat affect, which could explain why she was not eating or drinking as she should. In addition, a family member told the physician that the patient had a remote diagnosis of depression. For this reason, an inpatient psychiatry consult was ordered. The psychiatric service, in this case consisting of a resident and the attending physician, came on Saturday afternoon and reviewed the patient's history. They discussed the patient's condition and her various comorbidities and decided to initially try non-pharmacologic options. On Sunday (according to the written progress note), the psychiatric resident came by and evaluated the patient. A decision was made to initiate an antidepressant (specifically escitalopram). She received her first dose on Sunday at approximately 2230 hours.

When I came in to round on my patients on Monday morning, I noticed that the on-call fellow had been contacted overnight regarding the patient's blood pressure, which peaked at 220/100 mmHg around 0130 on Monday morning. She had received three doses of IV hydralazine by the time I had come by around 0700. I quickly reviewed the patient's chart and her previous medical history. Initially, I thought that perhaps she was taking blood pressure medications at home and that the ER physician had left them off the admission orders. I discovered that the patient never had hypertension; her blood pressures throughout her admission had been in the low 110's over 60's. I then went through all of the medications she was currently receiving when I noticed that she had received a dose of escitalopram the night before. I looked at her other medications and saw that she came in on selegiline and entacapone. I wrote an order to discontinue the escitalopram and decrease the IV fluids. I placed a note on the front of the chart saying that <u>any</u> changes in the patient's medications had to be approved by the clinical pharmacy specialist on the primary team (me). Over the next several hours, her blood pressure returned to normal without the need for additional hydralazine.

Selegiline, an agent in the class of MAOIs.

"I was quite alarmed that this interaction had been missed by a physician, a pharmacist, not to mention nursing…"

CLINICAL CORNER (CONTINUED):
MONOAMINE OXIDASE INHIBITORS: NOT HISTORY YET!

BY: BONNIE LABDI, PHARM.D.

After much research and a few phone calls, I learned that the patient had been on selegiline and entacapone for about 10 years. Both were initiated by her outside neurologist with whom she had regular follow-ups to assess her response to treatment as well as to monitor her vital signs. I talked to the psychiatric resident who had started the escitalopram and I asked her if she knew what other medications the patient was on. She produced a list of the medications from her progress note. When I asked her if she knew what drug class selegiline belonged to, she stated it was an anti-Parkinson's drug. When I told her that it was actually an MAOI, she was surprised. Apparently when she discussed the patient's case with her attending physician, she failed to mention that the patient was on selegiline, instead stating that she was taking drugs for her Parkinson's.

I then talked to the pharmacist who entered the order and asked her if she recognized that selegiline was an MAOI. She admitted that she had forgotten what class of drug it was. When I asked the inpatient pharmacy supervisor why the interaction had not been caught by the pharmacist, she stated that since the selegiline had been entered as "patient's own med", it did not go through the interaction screening that normally occurs during order entry. I was quite alarmed that this interaction had been missed by a physician, a pharmacist, not to mention nursing. The on-call fellow did not recognize the interaction either. He initiated hydralazine "as needed" for what would clearly be classified as a hypertensive crisis without attempting to figure out what the cause could be.

I am pleased to say that as a result of this particular incident, the institution where I worked at the time added all of the available MAOIs on the market to its pharmacy database. Even though drugs like selegiline would not be available in the pharmacy to dispense, the pharmacist would no longer bypass the interaction and warning screening tool to manually enter the "patient's own med". The pharmacist would now choose the actual drug and enter the "patient's own med" in the comments section, and all drugs would be screened appropriately.

Special Thanks to the Newsletter Committee:

Melissa Badowski
Christy Burrows
Renee Holder
Amber Ellicot
Beth Resman-Targoff
Sarah Anderson
Suzanne Wortman
Antoine Jenkins
Shaunta Ray

Upcoming Events

2011 Annual Meeting Call for Abstracts

Original Research, Clinical Pharmacy Forum, and Resident and Fellow Research-in-Progress categories are due Wednesday, June 15, 2011, 11:59 p.m. (PDT)

Student Submissions and Late Breakers are due Wednesday, July 6, 2011, 11:59 p.m. (PDT)

2011 Annual Meeting

October 16-19, Pittsburgh, PA