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NYS-ACCP Insider

Albany College of Pharmacy and Health Sciences

Special points of interest:

- Expanded CDTM Bill passed in NYS
- Highlight of the ACPHS-ACCP student chapter
- Interview with a current ACPHS PGY2 Nephrology resident
- Updates on a new heart failure drug
- Methods to assess patients' medication adherence

Inaugural Edition

In efforts to enhance communication and networking across our professional organization, NYS-ACCP has decided to embark on quarterly newsletters. Each newsletter will be spearheaded by one of the four student ACCP chapters within NYS. The newsletter will highlight the student chapters, discuss pertinent issues to clinical pharmacy practice, including noteworthy guideline updates or drug approvals, legislative updates, clinical practice initiatives, and upcoming events. If you have any pertinent information to share, networking opportunities, announcements or calls for collaboration, please forward them to contribute to the newsletter. Contact Amanda Winans, PharmD., NYS-ACCP Treasurer at amanda.winans@bassett.org

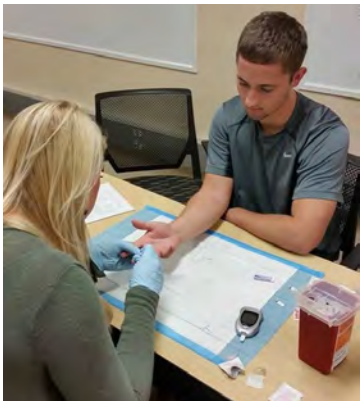
Also, please check out NYS-ACCP's new and improved website at http://nys-accp.echapters.com.

CDTM Extension Bill Signed into Law

On September 14, 2015, the Collaborative Drug Therapy Management (CDTM) Extension Bill was signed into law. This bill expands the limited CDTM project demonstration that recently expired and was limited to Article 28 teaching hospitals and their associated clinics. Through the demonstration project, NY pharmacists proved successful CDTM in the areas of anticoagulation, asthma, diabetes, heart failure, HIV and oncology. This new bill allows CDTM to be practiced in all hospitals, not just teaching hospitals, as well as, diagnostic and treatment centers, hospital-based outpatient departments and nursing homes with an on-site pharmacy. It does not permit CDTM in dental or residential healthcare facilities, or rehabilitation centers. This latest advance will allow for greater pharmacist contribution to healthcare teams, treating patients more quickly and efficiently. More contact time with patients also provides more opportunity for improving adherence. We encourage all practitioners who work in the newly approved settings to consider developing collaborative practice agreements.

The new CDTM Bill is a step in the right direction; however, there is still work to do. Please continue advocating for further expansion of CDTM and moving our profession along.

- Nicholas Trotta, PharmD Candidate: ACPHS Class of 2018



ACPHS-ACCP Student Chapter Summary

The student chapter of ACCP at Albany College of Pharmacy and Health Sciences first began in 2011 as a student affiliate led by Dr. Amy Barton Pai. Our chapter was recognized as an official student chapter in January of 2014. A central goal of the ACPHS chapter is to engage students in direct-patient care activities. We have built an affiliation with the Northeast Kidney Foundation to create the Cardiovascular and REnal Disease (CaRE) Screenings that provide free blood pressure measurement, point of service lab testing, comprehensive medication reviews and disease management education across the Capital Region of upstate New York. Recently, we began offering a "CaRE Screening Certification training." The purpose of this training is to prepare students to perform manual blood pressure measurement, blood glucose readings, and counsel patients on their results of the screening. This training has made students much more comfortable with attending our screenings, since they have an opportunity to practice their techniques before they are presented with patients. Throughout the month of September we were able to interact with and help over 400 members of the community.

Our other community outreach event began as part of the "Script Your Future" campaign. Script Your Future is a national campaign that promotes medication adherence. We provide the community with resources to help them be more successful at taking their medications, such as weekly pill organizers and medication reminder apps. We have expanded these events by encouraging patients to take preventative measures to better their future health. We provide age-based handouts that outline recommended vaccinations, screenings, and tests that are suggested for each age group. We also provide blood pressure screenings and general medication counseling.

In order to develop fun but academically-focused events, our chapter has developed Clinical Pharmacy Challenge (CPC) nights that occur 3 times each semester. While a primary focus is to identify a three member team for the CPC, P1 and P2 students are encouraged to participate by including topics in their curriculum (e.g. Self-Care). Past topics have included Neurology/Psychiatry, Nephrology, Cardiology, Self-Care, Infectious Diseases, and Endocrine pharmacotherapy. The CPC nights are designed to mimic the national competition. We begin with a lightning round. Followed by a case vignette, and then conclude with the jeopardy-style round. Ideas for questions are drawn from class material, textbooks available through Access Pharmacy, and current practice guidelines. Faculty members in the specialty area review the questions and often attend to offer clarification on questions. Responses are captured using TurningPoint Responseware technology. After all questions have been answered, team totals are calculated and prizes (in the form of gift cards or clinical resources) are awarded to the 1st and 2nd place teams. Point totals are also accumulated over the course of the semester and the top-scoring team from the semester is awarded a grand prize.

- Andrea Glogowski, PharmD Candidate: ACPHS Class of 2017

Clinical Spotlight: PGY-2 Nephrology Residency

Nicole M. Wegrzyn, Pharm.D.

"… students should engage in something that they are passionate in and that will define them and lead them to their career path!"

What made you interested in Clinical Pharmacy?
As a child I was hospitalized with pneumonia. I was curious about the medications that helped me, which led me down the path of medicine. It wasn't until my first APPE rotation that I decided I really wanted to go into clinical pharmacy. Before this rotation, I had my heart set on compounding pharmacy and thought about owning my own apothecary. On my clerkship, I witnessed my preceptor following practice guidelines and prescribing medications to help patients more directly. As a clinical pharmacist, I would be meeting patients face to face to discuss their labs, diet habits, etc. and have a tangible impact on their well-being by managing their chronic diseases.

Did you have a mentor whom you looked up to or went to for advice?
Of course! I had many mentors and still keep in contact with them. One of my mentors is a professor from my pharmacy school and she was a great influence. She inspired me to pursue practicing in the outpatient setting and also introduced me to teaching. She taught me a lot about being a pharmacy educator, clinical pharmacist, and all of the different avenues of clinical pharmacy.

What were you involved with during your college years?
I was very involved and active in many student organizations. To name a few of the things I did: I was chair of the Women's Health Organization of APHA-ASP, Special interest senator for SGA, and Chair for Curriculum Reform, Resources, and Programming for the Professional Coalition for Reproductive Justice. When I reactivated the NCPA student chapter, I was also co-president. I am also affiliated with MIPA, AACP, ASHP, ICHP, and ACCP, as well as other organizations outside of pharmacy.

What is your current practice/role?
My current practice site is Dialysis Centers Inc. Rubin Saratoga Springs. I meet with patients with end stage renal disease on hemodialysis and review their medications for efficacy, safety, and appropriateness. We discuss aspects of their care such as medication adherence, blood pressure, blood sugar, and any complaints that may arise. I even treat the occasional hypertensive emergency – just last week a systolic pressure was over 250 mmHg! There is also a teaching aspect of the residency wherein I facilitate a section of Integrated Problem Solving. Throughout the year, I will be working on several different research projects. I recently wrote a manuscript with Dr. Barton-Pai and plan to be involved with some of her bench research later in the year.

How do you stay current on everything?
I subscribe to news briefings from the FDA and have about 4-5 active subscriptions for diabetes, cardiology, and nephrology news. I am also a part of ACCP's Practice and Research Networks (PRNs). I believe PRNs are a great way to reach out to other professionals in the area and are a valuable resource for clinical cases or new developments in the pharmacy community.

What is the best advice you could give to a student pursuing a career in Clinical Pharmacy?
I believe that students in any year should engage in something that they are passionate in and that will define them and lead them to their career path! My perspective is that it is less about the number of groups you are in and more about making a significant contribution in whatever you chose to participate in. Your contributions are definitely a conversational topic in an interview and really shows your involvement and interests.

- Interviewed by Nelson Polanco and Anne Lau, PharmD Candidates: ACPHS Class of 2018

FDA Approves New Heart Failure Drug

The Food and Drug Administration approved the new drug Entresto™ (sacubitril/valsartan) on July 7, 2015.

What is Entresto™?

Entresto (sacubitril/valsartan) is an angiotensin receptor-neprilysin inhibitor. It provides dual inhibition of the neuroendocrine system, by inhibiting neprilysin, which will increase natriuretic peptides, while valsartan simultaneously inhibits of effects of angiotensin II. Entresto is not a combination drug; the two medications are fused into one molecular complex that has a single name (LCZ696) and single dose (50 mg, 100 mg, or 200 mg). The dose of LCZ696 is the total amount of both components in the molecular complex therefore, LCZ696 200 mg that was used in the clinical trial is equivalent to the prescribed Entresto 97 mg/103 mg.

Fact: Entresto (sacubitril/valsartan) is formulated as a tablet and is available in strengths 24 mg/26 mg, 49 mg/51 mg, and 97 mg/103 mg.[2]

Fact: The valsartan in Entresto is more bioavailable than the other formulations of valsartan healthcare professionals are used to seeing. Thus, valsartan 26 mg, 51 mg, and 103 mg are equivalent to valsartan 40 mg, 80 mg and 160 mg, respectively.[2]

When should you recommend Entresto?

Entresto is indicated to treat patients with chronic heart failure and reduced ejection fraction (EF $\leq$ 40%).[3] The PARADIGM-HF trial showed that when used in place of an ACEI or ARB and in combination with other standard heart failure (HF) medications, it reduced the risk of mortality, morbidity, or hospitalization from HF.

What does the PARADIGM-HF trial tell us?

The PARADIGM-HF trial was a randomized, double-blind, phase 3 trial that explored the combination of sacubitril with an ARB. It was a trial that compared sacubitril/valsartan (LCZ696) to enalapril in 8442 patients with NYHA class II - IV HF and reduced EF $\leq$ 40% (HFREF).[5] This trial proved that adding a neprilysin inhibitor to an ARB in comparison to treatment with enalapril reduces mortality, morbidity, and hospitalizations due to HFREF.

The LCZ696 group resulted in a 20% reduction in the risk of the primary end point, cardiovascular (CV) death or hospitalization for HF, compared to enalapril group ($p < 0.001$). It also showed a 20% reduction in CV death compared to the enalapril group ($p<0.001$). It decreased the number of ED visits ($p=0.001$), as well as a 20% reduction in hospitalizations ($p<0.001$) suggesting that it may delay the progression of HF.[1,6,7]

Overall, the medication was well tolerated with no statistical difference between the two groups in serious angioedema cases. Other adverse events that occurred in the trial includes:

- LCZ696 caused more cases of hypotension which was statistically significant when compared to enalapril [7]
- LCZ696 caused less cases of elevated SCr and hyperkalemia; both ADEs were statistically significant between the two groups[7]

LCZ696 caused less episodes of cough compared to enalapril, the data was statistically significant[7]

When should Entresto not be recommended?

Entresto should not be given with an ACEI or within 36 hours before or after taking an ACEi because it could lead to serious angioedema. It should not be used with concomitant ARB therapy (since it contains valsartan, an ARB) or with aliskiren in diabetic patients. Entresto is not recommended in severe renal impairment (eGFR <30 mL/min/1.73 m^2) or moderate hepatic impairment (Child-Pugh B classification). This drug is not appropriate for use in children, pregnant or lactating women.[1,2] There should be caution in those patients on concomitant potassium supplements, on NSAIDs, or at risk of hyperkalemia.

- Sonya Kara and Odirichukwu Duru, PharmD Candidates: ACPHS Class of 2018

References:

1. Entresto. In: Lexi-drugs online [database on the Internet]. Hudson (OH): Lexicomp, Inc.; 2015 [updated 8 Jul 2015; cited 30 Sep 2015]. Available from: http://online.lexi.com. Subscription required to view.
2. Entresto (sacubitril/valsartan) [Internet]. 2015 [cited 2015 Sep 30]. Available from: https://www.centerwatch.com/drug-information/fda-approved-drugs/drug/100083/entresto-sacubitril-and-valsartan
3. Jessup M, Fox K, Kom M, McMurray J, Packer M. PARADIGM-HF — The Experts' Discussion. N Engl J Med 2014 Sep 11; 371:e15.
4. LCZ696 is Now Approved as Entresto™ [Internet]. 2015 [cited 2015 Sep 30]. Available from: https://quo.novartis.com/entresto/index
5. Macdonald, PS. Combined Angiotensin Receptor/Neprilysin Inhibitors: A Review of the New Paradigm in the Management of Chronic Heart Failure. Clin Ther. 2015 Sep 17; pii: S0149-2918(15)01030-9. doi: 10.1016/j.clinthera.2015.08.013.
6. McMurray J, Packer M, Desai AS, et al. Angiotensin–Neprilysin Inhibition versus Enalapril in Heart Failure. N Engl J Med. 2014 Sep 11; 371:993-1004.
7. Packer M, et al. Angiotensin Receptor Neprilysin Inhibitor Compared with Enalapril on the Risk of Clinical Progression in Surviving Patients with Heart Failure. Circulation 2015;131:54-61.

Newly Developed Self-Management Tool

Current methods to assess medication adherence include pharmacy claims data, pill counts, and self-reporting. Claims data and pill counts are both time-consuming and can be inaccurate procedures for assessing adherence. Self-reporting is currently the most widely used method for assessing adherence, however most of these scales fail to accurately assess patients' behaviors and are not appropriate for use in patients with limited health literacy.

A recent publication from the University of North Carolina at Chapel Hill outlines a newly developed self-management tool, called Measure of Drug Self-Management (MeDS), to assess adherence to medications.[1] Development of this tool is strongly desired for use in both clinical settings and future research projects.

The MeDS model focuses on six necessary steps a patient must take in order to ensure safe and appropriate drug use: *fill, understand, organize, take, monitor,* and *sustain*. A pool of questions was created to assess these 6 steps, while also considering patient's knowledge, skills, and behaviors regarding medication usage. Varying levels of health literacy and health literacy "best practices" were considered throughout the question development process. The final product is a 12 -item scale and based on patient response they receive a score of 0 or 1. For example, the question "I often forget if I have already taken my medication" offers the responses agree (0 points) or disagree (1 point). A total score < 10 indicates inadequate drug self-management skills. The MeDS tool was found to positively correlate with the Morisky Medication Adherence Scale. The model also demonstrated that patients with higher HbA_{1c}, systolic blood pressure, diastolic blood pressure, and cholesterol also had a lower medication adherence score. The authors concluded that the MeDS tool is a valid and reliable measure of patient's self management.

Don't forget to REGISTER!

NYS-ACCP

Annual Meeting

November 13, 2015

Presentations about clinical use of medical marijuana, innovative methods to reduce adverse drug effects, heart failure pharmacotherapy updates, antimicrobial updates, hot topic clinical pearls and more!

Students– NEW this year– networking roundtables

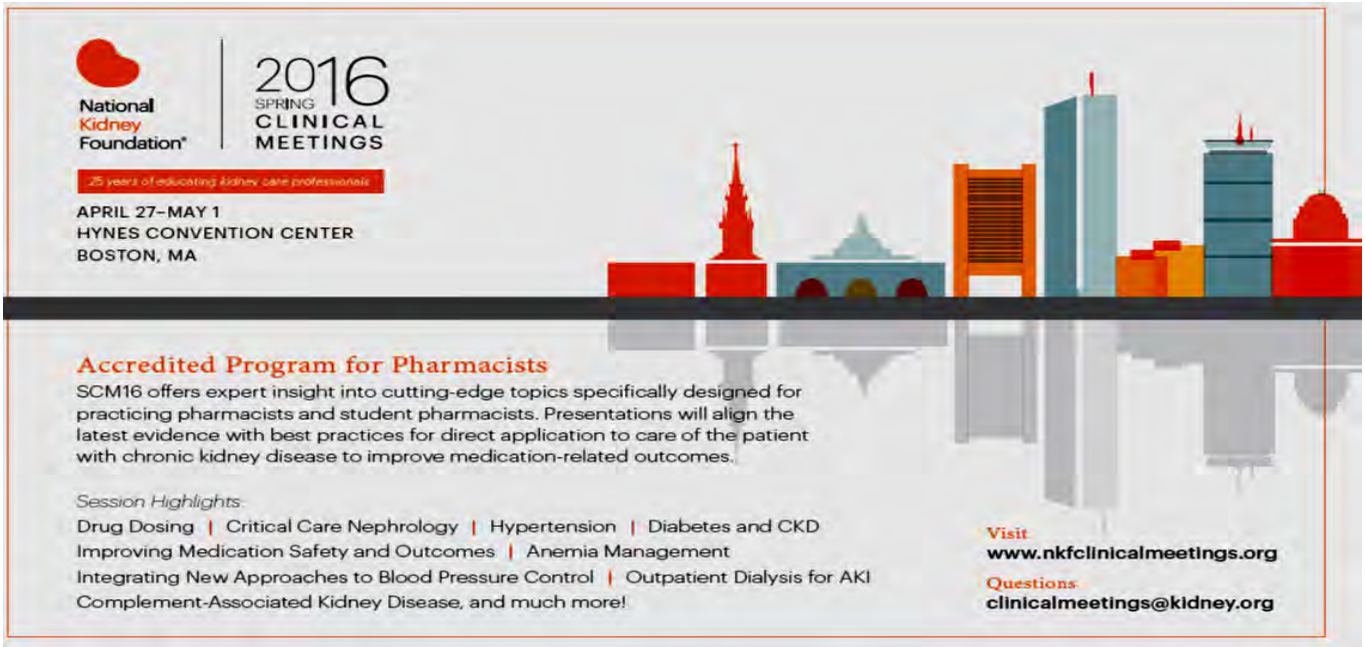
Meeting & Live Webinar

Hilton Garden Inn—Albany Medical Center
62 New Scotland Ave
Albany, NY 12208

Register online at
www.nys-accp.echapters.com
by October 30, 2015

1. Bailey SC, Annis IE, Reuland DS, et al. Development and evaluation of the Measure of Drug Self-Management. Patient Prefer Adherence. 2015 Jul 31;9:1101-8.

- ***Andrea Glogowski, PharmD Candidate: ACPHS Class of 2017***



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