Managing Stress in Our Lives and in Others

As fourth year pharmacy students, we must balance learning how to care for patients, spending longer hours at our rotation sites, working part-time jobs, as well as preparing ourselves for the future by applying for jobs, writing letters of intent, and going to conferences and interviews. All of these new roles and responsibilities may bring on a lot of stress for many fourth year pharmacy students.

In the graduate student world, we are not alone in these feelings. Increasing research shows that graduate students feel more stress, anxiety, and depression than the average population. A study conducted at University of California at Berkeley showed that ~45% of graduate students in biosciences had feelings of depression. One study reported that 41% of graduate students showed signs of moderate to severe anxiety and 39% showed signs of moderate to severe depression. These results were markedly elevated from previous studies in the general population, stating that approximately 6% of adults suffer from anxiety and/or depression.

The American Society of Health-Systems Pharmacists (ASHP) recognizes that students can also be affected by burnout, along with residents and practitioners. Thankfully, we have an excellent support system here at The University of Georgia College of Pharmacy. Students affected by feelings of anxiety, depression, and burnout are encouraged to contact the Office of Student Affairs or use Academic Support resources to determine the next step in improving their mental health.

Just as students and pharmacists may experience feelings of anxiety and depression, our patients may as well. Patients who are uninsured or without mental health coverage on their insurance plan will often forgo mental health care because of the expenses associated with the office visits and the prescriptions. The ALAS Free Mental Health Clinic offers services to uninsured or underinsured patients in need of care in Augusta, Georgia and the surrounding areas.

As a pharmacy student coordinator, I perform medication reconciliation, send prescriptions to the pharmacy, and screen for potential drug interactions before sending the prescription. I also work with the patients to find which pharmacy has the best price for their medication and set up financial assistance for patients who are unable to afford their medications.

A task as simple as printing a GoodRx® coupon for a patient means the world to someone who is taking the first step in reclaiming their mental health. While I sat with one patient trying to find the best price on his medications, he confided in me that in the last year, he had lost multiple family members. He was previously seeing a psychologist, but then lost his job. He could no longer afford his mental health care and medications without insurance. He discovered an article about the ALAS clinic and was able to establish free care in order to avoid a gap in his mental health treatment.

Katie Fitton (left) and Sydney Finder (right) at the ALAS Free Mental Health Clinic

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Beyond-use date criteria has been revised to account for potential contamination and degradation. USP <797> Pharmaceutical Compounding - Sterile Preparations has undergone similar updates. Contamination risk levels are no longer defined as low, medium, or high, but as Category 1 and 2 compounded sterile products (CSP). These categories are defined by the preparation environment, the likelihood of microbial growth, and the time period in which the medication must be used. Additionally, numerous cross-references to USP <800> can now be found throughout both chapters.

The new USP updates will have a profound impact on pharmacy operations including the dispensing and compounding processes. Additionally, noncompliance will be faced with the threat of fines from state boards. While these guidelines may be challenging to implement, patient safety lies at the core of the changes, and safer practices will help protect those we serve.

Written by: Sarah Adams (Athens Campus)
Reviewed by: Casey Rice (Savannah Campus)

<table>
<thead>
<tr>
<th>Group</th>
<th>Definition</th>
<th>Examples</th>
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<tbody>
<tr>
<td>1</td>
<td>Antineoplastic drugs</td>
<td>Carboptin, fluorouracil, hydroxyurea, letrozole, megestrol</td>
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<tr>
<td>2</td>
<td>Non-antineoplastic drugs that meet one or more of NIOSH criteria for HDs</td>
<td>Abacavir, carbamazepine, cyclosporine, divalproex, estrogens, phenytoin, risperidone, tacrolimus</td>
</tr>
<tr>
<td>3</td>
<td>Non-antineoplastic drugs that primarily have adverse reproductive effects</td>
<td>Clomiphene, clonazepam, finasteride, flucanazole, misoprostol, paroxetine, testosterone, tretinoin, ziprasidone</td>
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References:

Pharmacy student coordinators are vital to the ALAS clinic in addition to the medical students and residents. Working together as a team to serve the underserved in our community has been more rewarding than I ever could have imagined.
Preceptor Highlight: Dr. Melissa Patel at Grady Memorial Hospital

Precepting students is a commitment to the profession of pharmacy and a dedication to shaping the next generation of pharmacists. I have had the privilege of receiving guidance from pharmacists in various pharmacy settings, but one particular individual stood out. It is with much enthusiasm that I write about Dr. Melissa Patel and the remarkable experience she provided during my acute care internal medicine rotation.

In five short weeks, Dr. Patel was able to teach me countless lessons about pharmacy and about life in general. I watched her complete tasks in record time and balance multiple responsibilities without ever seeming to break a sweat. She challenged me to push past my limits. She helped me more than double the number of patients I was able to work up in one sitting. Dr. Patel taught me confidence and assertiveness. She found a way to provide constructive criticism candidly, yet kindly.

Dr. Patel also provided ample opportunity for me to be an involved member on an interprofessional healthcare team. I participated in Acute Care in the Elderly (ACE) rounds and was able to collaborate with a team of geriatricians, nurse practitioners, nurses, dieticians, physical therapists, and social workers. I was given the opportunity to counsel patients who had recently suffered venous thromboembolisms (VTE) on the correct use of direct oral anticoagulants. I was also able to educate and interact with patients of various religions, ethnicities, backgrounds, socioeconomic status, and health literacy. This exposure really helped me fine-tune my counseling and communication with patients from all kinds of backgrounds.

Additionally, while working as a full-time clinical pharmacist and precepting students, Dr. Patel also dedicated time to ongoing research initiatives and assisted the pharmacy residency program director. Each workday, Dr. Patel displayed an extraordinary level of professionalism, intellect, and compassion. With each passing week, I realized how dedicated she was to her patients and students, like me. She always seemed to find ways to go above and beyond, whether it pertained to answering drug information questions posed by physicians, identifying methods to improve her skills as a preceptor, or finding manufacturer coupons for uninsured patients.

Dr. Patel is the epitome of leadership in pharmacy. I have come to respect and admire her, especially her go-getter attitude and constant willingness to assist with any task. I firmly believe that her efforts will go far in expanding pharmacy practice and developing future generations of pharmacists.

Written by: Ezimma Nnyagu (Atlanta Campus)
Reviewed by: Aubrey Slaughter (Augusta Campus)

Changes in the the 340B Program

Section 340B of the Public Health Service Act was enacted in 1992 as a way to provide inexpensive medications to healthcare centers who primarily serve indigent patients. In order to participate in Medicaid and Medicare Part B, drug manufacturers are required to provide discounts on outpatient drugs to certain hospitals and clinics (called “covered entities” or “safety net providers”) that accept patients regardless of their ability to pay. The drug savings can then be passed on to the underserved and indigent patients.1,2

| Organization/Entities Eligible for Participation in the 340B Program |
|-------------------------------------------------|----------------|----------------|------------------------------------------------|
| Health Centers | Hospitals | Specialized Clinics | Ryan White HIV/AIDS Program Grantees |
| Federally Qualified Health Centers | Children’s Hospitals | Black Lung Clinics | Ryan White HIV/AIDS Program Grantees |
| Federally Qualified Health Center Look-Alikes | Critical Access Hospitals | Comprehensive Hemophilia Diagnostic Treatment Centers | |
| Native Hawaiian Health Centers | Disproportionate Share Hospitals | Title X Family Planning Clinics | |
| Tribal/Urban Indian Health Centers | Free Standing Cancer Hospitals | Sexually Transmitted Disease Clinics | |
| | Tribal/Urban Indian Health Centers | Rural Referral Centers | Tuberculosis Clinics | |
| | | Sole Community Hospitals | | |

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Changes Coming to the 340B Program (continued)

In January 2018, the Center for Medicaid Services (CMS) issued a final rule that reduced reimbursement for certain Medicare Part B drugs purchased through the 340B program by 28%. Many hospitals and hospital associations nationwide saw this as a threat to their ability to provide adequate care to the populations they serve. CMS claimed that the ruling would reduce the cost of prescription drugs for Medicare recipients and create savings that would, in turn, be distributed equally to hospitals. Pharmaceutical Research and Manufacturers of America (PhRMA) backed this idea by claiming that Medicare overpays for 340B medications in a way that brings profit to the hospital but no benefit to the patient.

More recently, in January 2019, the Health Resources and Service Administration at the US Department of Health and Human Services (HHS) issued the 340B Ceiling Price and Manufacturer Civil Monetary Penalties Final Rule. This forces drug manufacturers to calculate a ceiling price for all 340B drugs, while HHS must publish those prices in order to increase accountability.

A manufacturer that knowingly charges over the ceiling price will have to pay at least $5,000 for each time they overcharge. While this ruling has been widely considered beneficial to 340B program hospitals, PhRMA continues to claim that hospitals are taking advantage of the 340B program, and they claim that manufacturers will not have time to make necessary procedural changes despite the ruling being delayed multiple times over a period beginning in January 2017.

The 340B program is not often discussed in detail with students, but it is important to be familiar with the recent changes and associated disagreements between health centers and drug manufacturers. Up to 40% of US hospitals participate in the 340B program for outpatient drugs, so we will likely intern in a hospital or clinic with patients relying on the 340B program. To follow the program’s status, visit https://www.hrsa.gov/opa/index.html.

Written by: Cody Parker (Savannah Campus)
Reviewed by: Olivia Nechvatal (Albany Campus)

References:

Rotation Highlight: Neurology with Dr. Jody Rocker and Dr. Lindsey Sellers at AU Medical Center

I recently had the privilege of working with Dr. Jody Rocker and Dr. Lindsey Sellers on the inpatient neurology service at AU Medical Center. On this rotation, I had the opportunity to work up patients, round with a team of physicians and medical students, make medication recommendations, answer drug information questions, and provide patient education. I also played an active role in ensuring proper transitions of care as patients were transferred from the neurology intensive care unit to the floor and discharged from the hospital to rehabilitation facilities.

In addition to brushing up on clinical skills, I was able to enhance my clinical knowledge of neurological disorders such as stroke, epilepsy, multiple sclerosis, Parkinson’s disease, myasthenia gravis, and Guillain-Barré syndrome.
Continued from page 4... Rotation Highlight at AU Medical Center

In addition to all of the knowledge that I acquired, the rewarding patient experiences are what made this rotation so meaningful and memorable for me.

At first, this rotation may seem disheartening rather than rewarding. The majority of the patients on the neurology service present with debilitating strokes, many of which result in major neurological deficits. Some of these patients are unable to walk, speak, understand words, or even recognize their loved ones. Most of them were fully functional before their strokes, but now many will likely require around-the-clock care.

As a member of the neurology team, you help to provide these patients with the care they need to get better, and in doing so, you get to watch them as they progress and get better. You have the opportunity to see them regain cognitive function over a few days and sometimes even overnight, to watch them learn how to walk and talk again, and to witness them defy the odds and exceed everyone’s expectations for their clinical outcome.

Years from now, I may not remember what dosage forms phenytoin comes in or what a trifurcating fusiform aneurysm is, but I will always remember the special moments that I got to experience on this rotation. These are moments that will follow me for the rest of my career and are some of the moments that have made me proud of my decision to become a pharmacist. I am grateful to have had this rotation and I am even more grateful to have been a part of the medical team that helps these patients get their lives back.

Written by: Cambre Goodlett (Augusta Campus)

Plenity®: The Full Story on a Novel Approach to Weight Loss

Adult obesity is common, serious, and costly. According to the CDC, the prevalence of obesity among adults is 39.8% and is rising steadily. Body mass index (BMI) is a measure used to estimate how overweight or obese an individual may be. The normal BMI range for a typical adult is 18.5 to <25 kg/m². Individuals with a BMI of 25 to <30 kg/m² are considered overweight and those with a BMI ≥30 kg/m² are classified as obese.

Obesity is a serious health concern that has been linked to heart disease, stroke, type 2 diabetes, and cancer. The medical cost of obesity in the United States is approximately $147 billion each year. Although many national campaigns have promoted healthy lifestyle choices, including diet and exercise, such campaigns have been unsuccessful at curtailing the obesity epidemic. Until now, options beyond diet and exercise have been limited to stimulant-containing medications that are not safe for those with hypertension or atherosclerotic cardiovascular disease (ASCVD), medications that work on serotonin, and therefore might not be an option for the millions of people that take selective serotonin reuptake inhibitors (SSRIs), and/or injectable medications that are not ideal for anyone.

Plenity® gained FDA approval in April 2019 and is expected to be available by prescription only by the end of this year. Plenity® is indicated for weight management in adults with a BMI of 25-40 kg/m² in conjunction with diet and exercise. It is an oral capsule containing cellulose and citric acid. The first of its kind, Plenity® is not systemically absorbed and actually gained approval as a medical device, not a drug. When ingested, its naturally-derived components form hydrogel pieces that readily absorb water in the stomach and expand, causing patients to feel fuller faster. As a result, calorie intake is decreased. The hydrogel pieces are then partially degraded in the large intestine and the remaining cellulose material is eliminated in the feces.

Plenity® not only provides a novel method of weight management for adults, but was also proven to have similar side effects when compared to placebo. The most common side effects were fullness, bloating, flatulence, and abdominal pain. Patients take 3 capsules by mouth 20 minutes before lunch and dinner with 16 oz of water. If a dose is missed, the capsules can be taken during or immediately after the meal.

Many patients struggle to make healthier choices to achieve and/or maintain a normal weight. Plenity® offers an alternative option for patients to meet their weight goals and concurrently decreases additional health risks.

Written by: Diana Allgood (Athens Campus)  
Reviewed by: Catherine Rothery (Augusta Campus)

References:
My favorite thing about the holidays is all of the opportunities available for giving back. There are so many ways that you can help out—whether it be donating to your favorite charity/shelter, sponsoring a child/family, or simply volunteering your time. Below we’ve listed some of our favorite ways that you can help out this holiday season!

1. Salvation Army Angel Tree Program
   See details here: https://salvationarmsouth.org/angel-tree/

2. Chunky Knit for a Cure!
   Buy a skein of yarn for $12 here. Four skeins of yarn makes one chunky blanket for a Children’s Hospital of Georgia patient.

3. USPS Operation Santa
   See details here: https://www.uspsoperationsanta.com/

4. Send a letter to a soldier
   See details here: http://www.operationwearehere.com/IdeasforSoldiersCardsLetters.html

Upcoming Events Calendar

December 8th—12th
American Society of Health System Pharmacists (ASHP)
Annual Meeting (Midyear)

December 9th—10th
- Residency Showcase
  - Monday 1pm—4pm
  - Tuesday 8am—11am
  - Tuesday 1pm—4pm
  (find the map here: https://midyear.ashp.org/Residency-Showcase/Information-for-Prospective-Residents)

December 14th
Winter break!

January 6th
Start of block 7

February 10th
Start of block 8

March 13th
Match Day 2020!

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