



Ernest Mario School
of Pharmacy

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ERNEST MARIO SCHOOL OF PHARMACY
RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY

PRECEPTOR NEWSLETTER

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Letter From Associate Dean

Warm Greetings and Happy New Year!

As we reflect and near the date of the two-year mark of the pandemic, we have learned and accomplished much! I wanted to share how grateful and blessed we are to be afforded preceptors, like yourself, to support our students and be the success of our program in mentoring the future of our pharmacy profession.

This time of year is typically busy for all involved in pharmacy with the traditional "cold and flu season" along with the mission of delivering optimal patient care. The Experiential Education Office (EEO) is busy with the goal of sustaining current rotations and preparing for the next academic year of 2022-2023. We appreciate that many of you have entered your availability to host rotations as students have entered their preferences for their rotation selections. Here at the office, we are reviewing to finalize schedules for the 2022-2023 academic year.

There are a few updates I wish to share with you. First, vaccination remains critical to our continued recovery of the university. **COVID-19 vaccine boosters are required of ALL Rutgers students and employees who are eligible to receive them.** As an expectation of our students becoming future healthcare practitioners, students are required to attain a COVID vaccine series and booster to be scheduled and complete rotations under the health certification process here at the school of pharmacy. Many of your sites have also made it a requirement and notified us of the expectation to share with students.

Speaking of vaccines, I am proud to share that we have been privileged to host a vaccine clinic here in our house. The clinic serves the state of New Jersey as a public pod along with the Rutgers' community. The clinic has an interprofessional medication flair and mission within the schools of RBHS' students and faculty. Anyone from the public who is interested in making an appointment please call 848-445-3033 and medical insurance is NOT required. To date, we have administered over 13,000 vaccinations. As you read the newsletter, you will see an article from the point of view of students' experience.

Lastly, I would like to offer thanks for the accommodations you have made for your assigned students to participate in the new longitudinal component of a Post-Rotational Evaluation and Preparation (PREP) Seminar, a virtual-hybrid course which includes longitudinal and an abbreviated course. The longitudinal sessions will be held virtually on Fridays from 2-4 PM during weeks 2 and 4 of the upcoming cycles 7 through 9 (starting January 2022). The goal of the hybrid model is to facilitate additional student preparation for the NAPLEX via review of core content areas. Thus far, the feedback from the students is that this is a valuable opportunity.

I'd like to share the new (2022-2023) academic rotation calendar for your reference:

Cycle 1 (5/23/2022– 6/24/2022) Memorial Day - May 30th

(IPPE Rotations End 6/17/22)

Cycle 2 (6/27/2022 – 7/29/2022) Independence Day - July 4th

(IPPE Rotations End 7/22/22)

Cycle 3 (8/1/2022 – 9/2/2022)

(IPPE Rotations End 8/26/22)

Cycle 4 (9/5/2022 – 10/7/2022) Labor Day – Sept 5th

Cycle 5 (10/10/2022 – 11/11/2022)

Cycle 6 (11/14/22 - 12/16/22)

ASHP Midyear Clinical Meeting - Las Vegas, NV – December 4th – 8th 2022

Cycle 7 (1/2/2023 – 2/3/2023)

Cycle 8 (2/6/2023 – 3/10/2023)

Spring Break: 3/11/2023 - 3/19/2023

Cycle 9 (3/20/2023 – 4/21/2023)

APhA Annual Meeting – Phoenix, AZ - March 24th-27th 2023

“Potential” EMSOP P4 Prep Week: 4/24/2023 - 4/28/2023 – TBD Professional Reflection Week on campus (LEAP AHEAD Portfolio, NAPLEX review, seminars, etc.

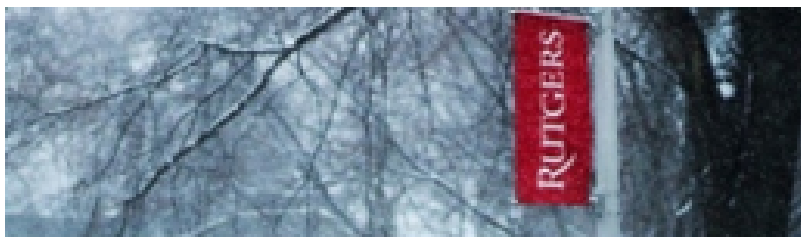
May 17, 2022 Graduation for PharmD Class of 2022

College Avenue Gym, New Brunswick, NJ

In closing, I wish to thank you all once again for your fortitude. So many of you have worked tirelessly to serve our communities and continually advance our mission. We are incredibly grateful for your hard work and resilience.

If you would like to showcase or share a best practice or highlight a student, preceptor, or site accomplishment for the next spring newsletter please email editors at **rotation@pharmacy.rutgers.edu**.

Again, thank you for your support of our students and program as we would not be able to achieve our success without you!



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PRECEPTOR HIGHLIGHT

Dr. Kunvarjee is an alumna of Ernest Mario School of Pharmacy (EMSOP) where she received her doctorate of pharmacy. She then went on to complete her PGY-1 pharmacy residency at Hackensack University Medical Center in Hackensack, NJ and PGY-2 pediatric oncology pharmacy residency at Memorial Sloan Kettering Cancer Center (MSKCC) in New York, NY. She currently practices as a pediatric bone marrow transplant and cellular therapy clinical pharmacy specialist at MSKCC and serves as an adjunct faculty at EMSOP and precepts APPE students.



Binni Kunvarjee, PharmD, BCOP

What does a typical work day look like for you, and how are students incorporated in the workflow?

A typical work day depends on whether I am on the inpatient or outpatient service, but generally for inpatient, I spend the mornings to pre-round and attend rounds with a multidisciplinary team. In the afternoon, at MSKCC, pharmacists are heavily involved in the discharge process, so I make medication lists, help coordinate prescriptions and refills, and counsel patients and their caregivers on the medications. I also hold topic discussions with pharmacy residents (and students), attend institution-wide meetings, review various protocols, and work with outside organizations. When students are on rotation with me, they do almost everything that I do daily, including pre-rounds, rounds, meetings, topic discussions, and patient counseling.

What do you find to be the most rewarding aspect about your job?

The most fulfilling aspect of my job is interacting with patients and their families. By the time these patients are receiving a bone marrow transplant, they have already gone through many rounds of treatment for their disease. So there is also a lot of emotional burden that these patients bring with them to transplant. But the fact that I can help provide relief by helping them understand the complex drug regimens and resolve medication-related issues is so fulfilling. Additionally, I work with amazing co-workers – both the pharmacy team and the medical team.

What made you decide join EMSOP as an adjunct faculty member?

Firstly, I love teaching and mentoring learners, whether it be students and residents. This love for teaching has been fueled by the fact that I had such great mentors that trained me throughout my pharmacy career both in school and in residencies. So I have a strong desire to pay it forward for future pharmacists. Secondly, because my practice area of pediatric BMT and cellular therapy is such a niche area, I can see how most students can go through their pharmacy school without much exposure. I wanted to provide the opportunity for students to experience this area of pharmacy if they were interested in pediatric oncology.

What do you think is the most valuable takeaway for your rotation students?

In addition to getting a good NAPLEX review of antineoplastic agents, I think one main takeaway for students is that they get to work with a very challenging population. This rotation requires disease state and drug knowledge of internal medicine, cardiology, infectious diseases, renal, and so much more, and it helps students to connect the dots. Also, they get to have patient interaction throughout the rotation, and experience working with a very fragile population.

What is your favorite part about being an EMSOP preceptor?

There are many things I enjoy about being an EMSOP preceptor, but my favorite part is that I learn a lot from the students. By encountering many different students, I learn about different teaching styles, and the students share a lot about their previous experiences, which I also try to learn from. Additionally, students give feedback on their experience on my rotation, and it helps me become a better preceptor and a better professional.

INTERPROFESSIONALISM AT THE RUTGERS VAXCORPS

By: Mohil Trivedi (P4), Jessica Pirrello (PA-S2), Rheana Reyes (BSN'22)

The Rutgers VaxCorps is a vaccine clinic that was established in early 2021 as a taskforce to help fight the COVID-19 pandemic. The clinic became operational later in the spring 2021 semester, with the first vaccine administered in May. The New Brunswick clinic is located in the annex of the Pharmacy Building on Busch Campus. However, there are two other clinics located in Camden and Essex counties in various Rutgers University affiliated buildings. The primary goal of the VaxCorps clinic is to vaccinate members of Rutgers University as well as members of the surrounding community while also providing counseling and education. Currently, all three COVID-19 vaccines (Moderna, Pfizer, Janssen) are available for first, second, third, and booster doses both by appointment and by walk-in.

When a patient registers to receive any dose of the vaccine, a medical questionnaire is generated and the patient is instructed to fill it out and bring it to their appointment. After the patient is checked in, they are guided to the room that offers the specific vaccine they are receiving. In the vaccination rooms, pharmacy students, medical students, physician assistant students, nursing students, and respective preceptors are assigned to administer the vaccines and document the process. After the vaccine is administered, the patient is provided counseling, their health record is updated, and they are monitored for 15 minutes in the waiting room.

With different members of the healthcare team at the clinic, not only do we all excel in our respective specialties, we also get the opportunity to expand our knowledge in each other's fields. That is the benefit of an interprofessional team - we are dependent on each other to provide the most optimal care for the patient. Whether it is providing counseling, answering medication related questions, or diagnosing medical problems, all members of the healthcare team play an integral part in direct patient care. From our perspective as volunteers at the clinic, the most fulfilling parts of the job include building a therapeutic relationship with our patients to alleviate any anxieties about being vaccinated, maintaining patient safety through infection control and triple-checking patient identification, and working as a multi-dimensional unit. Not only does working as a team in a safe environment improve our interprofessional skills, it also helps build confidence for when we embark on post-graduate opportunities as credentialed members of the healthcare team.

An illustrative example of interprofessionalism is as follows. A patient received her booster dose and was concerned about side effects she may experience. She asked the nursing students if diclofenac tablets from India are effective for side effect management. The nursing students weren't as familiar with the medication and asked the pharmacy students for additional information. The pharmacy students explained that since diclofenac is an NSAID, it can be used for the side effects. However, there is less information on diclofenac in the United States since other NSAIDs like ibuprofen and naproxen are more commonly used. The recommendation was made to use OTC ibuprofen, naproxen, or acetaminophen.



For the majority of students, the past few semesters of school have been hybrid or completely online, restricting interactions with other students, professors, preceptors, and patients. This decreased interaction can take away from the opportunity to develop our communication, patient interaction, and critical thinking skills, as these skills are commonly developed in healthcare settings. The vaccine clinic is an amazing opportunity to acquire that interaction with members of the healthcare team, preceptors, as well as the patients in the school and community. These positive interactions help supplement the dynamic of a healthcare environment and allow us to be an integral part of mitigating the effects of the pandemic. The volunteers at the VaxCorps clinic are proud to claim that we are front-line workers in the pandemic, and also fortunate enough to advance in our own professional curriculum while collaborating with other members of the healthcare team!

Mohil Trivedi, P4
Jessica Pirrello, PA-S2
Rheana Reyes, BSN '22



DRUG SHORTAGES AMIDST THE PANDEMIC

By: Olivia Smutek, PharmD Candidate 2022

Drug shortages have always existed; however, they have been on the rise over the past several years. Why are these drug shortages happening? How do we know when medications will go in short supply? What do we do if there is a drug shortage? How do we fix a drug shortage problem? As pharmacists, these are the questions we, among many other healthcare professionals, ask when faced with unavailable medications. It can be quite daunting when this issue stands in the way of our “five rights”: the right patient, the right drug, the right dose, the right route, and the right time.¹

Both the U.S. Food & Drug Administration (FDA) and American Society of Health System Pharmacists (ASHP) provide drug shortage lists as well as many other useful resources. The FDA provides information directly from the manufacturers, such as an estimated duration and the reasons for the shortage.² The list posted by the FDA is a confirmed national shortage and their target audience is the public. On the other hand, ASHP’s primary audience is healthcare practitioners and one of their purposes is to provide alerts of new shortages and status of ongoing shortages. ASHP’s source of shortages is from voluntary reports from practitioners and patients.² While there are many similarities and differences between FDA and ASHP drug shortage list, healthcare practitioners should utilize both platforms.

As a current final year student within EMSOP, I was fortunate to have completed an APPE with the FDA Drug Shortage Staff. Through this rotation, I learned about the various divisions of the FDA and the processes that must occur when faced with a national drug shortage issue. Due to the pandemic, I completed this rotation virtually. However, I was able to lend a helping hand, as well as speak with many members on their on-going projects. The drug-supply chain was heavily impacted by COVID-19 restrictions, and the drug shortages affected many institutions across the nation. Currently there are over 100 medications listed by the FDA on shortage.³ The FDA defines a drug shortage as a “period of time when the demand or projected demand for the drug within the United States exceeds the supply of the drug.”⁴ When there is a drug shortage, everyone turns to the FDA to find a quick and easy solution. Unfortunately, the answer is not always attainable in a short period of time. First off, there are many causes of drug shortages ranging from regulatory issues, natural disasters, voluntary recalls, shortages of raw materials, and more. However, one major reason is manufacturing difficulties.⁵ For example, let’s think of a sterile vial for injection. The pharmaceutical company must obtain the raw material from their material supplier and must manufacture the final product with the proper sterility. If there is an issue with sterility, the manufacturer must assess where it occurred, and work to resolve it. Before production can resume, sterility testing must be completed. There are many steps involved in producing a medication, which means there are many potential areas for error or delay.

| Medication ^{6,7} | IV:PO |
|---------------------------|---|
| Bumetanide | 1:1 |
| Ciprofloxacin | Check PI for AUC |
| Diltiazem | Oral dose (mg/day) = [infusion rate (mg/hour) × 3 + 3] × 10 |
| Furosemide | 1:2 |
| Levothyroxine | 0.75:1 |
| Levetiracetam | 1:1 |
| Metoprolol Tartrate | 1:2.5 |
| Torsemide | 1:1 |

Pharmacists play a crucial role in ensuring optimal medication therapy for their patients. Ultimately, the patient may suffer as there could be missed or delayed therapy, or even a canceled procedure. While it can be difficult to anticipate a drug shortage, it is worth identifying medications to monitor when there are changes such as an increase in prescribing patterns or medication ordering. ASHP and the FDA encourage not only health professionals to speak up about potential drug shortages, but it also urges manufacturers to keep an account of all their production supplies and let the FDA know as soon as possible if there is an issue. Within the hospital setting, pharmacists can either ration the supply they have left, look at alternative medications (based on safety and efficacy), or complete dosage conversions from IV to PO formulations. Below is a chart of many common medications IV to PO conversions. Pharmacists should be aware of common IV to PO dose conversions and make sure their APPE students are familiar as well. Several hospitals have created IV to PO policies where pharmacists can automatically convert drugs from IV to PO if approved under that policy.

All in all, we as pharmacists stand at the forefront of delivering high quality care to patients no matter what the circumstances are. We need to remain proactive and work efficiently when faced with challenges that could affect our patients.

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