

RUTGERS PRECEPTOR NEWSLETTER

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Notes from Dean Feudo

Amazing to say we have graduated another class of student candidates to take their place in delivering patient care within the practice of pharmacy. The students had the privilege and honor of receiving a special address by our very own name's sake, Dr. Ernest Mario as their guest speaker at graduation. We are grateful for the time he shared with us to celebrate the day.



He shared with them, "Choose your path and take chances, you might not consider something today that may make sense in the future as your life changes. As a PharmD you have that flexibility with a degree from EMSOP. Keep those eyes open to take advantage and surround yourself with mentors and those that can assist you in both your personal and professional development to be ready to make decisions for those paths."

We hope that you and your family are safe and well. All of us are making significant adjustments to the ways in which we work to keep patients, our students, and ourselves safe.



This newsletter contains topics about preceptors, faculty, and students highlighting their experiences over the last few months. You will also learn about updates to our program and read about innovative and creative opportunities for teaching and learning with new technology.

We appreciate your support and effort in training our students, especially for our recent grads so they could graduate on time and fulfill their requirements.

We kicked off the 2023-2024 rotation academic year on May 22nd with students completing approximately 303 APPE rotations, 134 IPPE Hospital/Institutional and 143 IPPE Community rotations thus far and we started cycle 3 on July 31st. We are so grateful for your ongoing support and dedication to our program, students, and the patients you serve. Students are fortunate to have preceptors such as yourselves and we share the mission to mentor the future of our pharmacy profession.

We would like to remind you of the importance of providing consistent feedback for our students. Our office encourages students to proactively solicit performance feedback throughout each rotation and minimally at the midpoint. The midpoint evaluation is an opportunity to discuss the student's progress and provide a formal evaluation on what is going well, and which areas need improvement. While written feedback is always important, this documentation is even more critical when a student is underperforming. The midpoint information allows our team to intervene when necessary to develop a succession plan. Also, students are to report absences, please see CORE announcement on 7/7/23 that details the policy and requirements that was sent to all preceptors. If you experience any challenges, difficulties that need to be addressed or have a best practice for us to share in the next preceptor newsletter please let us know.

Again, thank you for all you do and for your resilience that you exhibit to our students as you all are role models and we appreciate you being a part of EMSOP's Pharmacy.



Preceptors: Please approve/confirm Field Encounters in Core Elms

Dear Preceptors,

We have reminded our IPPE and APPE students that they are required to complete Field Encounters before the end of their cycle. We have received a few inquiries from students on the process of attaining their preceptor's approval of their uploaded field encounters.

- IPPE Community & IPPE Hospital/Institutional rotation students must complete a log prior to the end of the cycle.
- APPE rotation students must upload 1 recommendation/intervention weekly for a minimum of 5 total by the end of a cycle, in addition to the following other requirements:

Field Encounter	Minimum Required	APPE Rotation Type
Community Service Outreach	24 Hours by Cycle 9	Any Rotation Type
Formal Written Project	1	ANY EMSOP Faculty Rotation 7 Optional Adjunct Preceptor Rotation
Journal Club	1	ANY EMSOP Faculty Rotation 7 Optional Adjunct Preceptor Rotation
Patient Case Presentation	1	ANY EMSOP Faculty Rotation 7 Optional Adjunct Preceptor Rotation
Seminar/Topic Discussion	1	ANY EMSOP Faculty Rotation 7 Optional Adjunct Preceptor Rotation
Recommendation/Intervention	5 per rotation (1 per week)	EVERY Rotation

To assist you, or refresh your memory, there are slides with details on how to confirm your student's rotation recommendations/interventions via the CORE ELMS Field Encounter tab found in the Document Library tab of CORE ELMS. Again, this should be completed/confirmed before the student ends each of their rotations.

At your earliest convenience, please confirm any pending student field encounters.

Best regards,
The Experiential Education Office



Any questions, concerns, or issues please email rotation@pharmacy.rutgers.edu

Integrating New Technology into the Classroom

By: Amanda Sowinski, PharmD Candidate 2024



Technology, like medicine, is always evolving. The rate of technology change can be explained by the Pareto Distribution, with more than 80% of technologies advancing ~ 25% annually.¹ Thus, educators are challenged to stay current with transforming technologies and platforms. Here we present a summary of advanced alternatives for creating presentations and other types of educational materials (e.g., medication guides, handouts, CVs) which can be used by all disciplines. Most importantly, many sites are free or low costs to educators with valid school email addresses.

Slidesgo



¹Murray S. A comprehensive study of Technological Change. MIT News | Massachusetts Institute of Technology. August 2, 2021. Accessed July 15, 2023. <https://news.mit.edu/2021/comprehensive-study-technological-change-0802>.

- www.slidesgo.com
- Offers educators to use more unique, visually appealing slide deck themes, compared to PowerPoint templates.
- More than 1000+ free audience-enticing visual PowerPoint templates with various searchable themes using keywords. Templates are customizable, allowing the user to choose slide layout, infographics, colors, and visuals, and can also be easily imported into Google Slides.
- Cost: Slidesgo Premium subscription costs \$13.99/year for students, schools, and teachers and offers features like additional slide themes and no built-in credit slides.
- **Why use it?** This platform allows easy integration into Google Slides, is user-friendly and offers customizability of templates allowing the user to save time and minimize the hassle. The free version includes a vast library of themed templates. Slidesgo is a great platform for creating professional and visually appealing presentations.

Prezi



- www.prezi.com
- Allows users to create presentations on a large canvas/whiteboard, rather than traditional slides. The presenter can zoom in/out to emphasize specific details or the bigger picture. Videos and images can be easily integrated into templates.
- There are over 1000 free templates. Moreover, Prezi offers two additional products: Prezi Design and Prezi Video. Prezi Design can be used to create interactive charts, reports, and infographics meanwhile Prezi video enables the user to screen record lessons or assignments. Prezi works with other platforms such as, Zoom, Microsoft Teams, Webex, Slack, LinkedIn, and YouTube.
- A disadvantage of Prezi is that sharing presentations with others can be difficult compared to PowerPoint. There is also a learning curve for the presenter and viewer to navigate the zoom in and out functions.
- Cost: There are three subscription plan options for valid school email addresses: EDU Plus (\$3.00/ mo), EDU Pro (\$5.00/mo), and EDU Teams (\$8.00/mo/user). Departments and administrations can contact Prezi for enterprise pricing.
- **Why use it?** Prezi is a tool designed for those interested in creating a presentation in story form. The platform offers moving, visually engaging templates rather than traditional slides. The user will need to familiarize themselves with the features and should consider the limitations of integration into other technology platforms.

Notion



- www.notion.so
- Notion is a platform for users interested in compacting numerous apps and websites used on a day-to-day basis into one universal workspace.
- The platform easily integrates sites, such as Dropbox and Google Docs, eliminating the need for and number of notifications. In one organized place, users can see a task list, project documents, and file attachments. Videos, bookmarks, and images can be dropped in for others to view. The system also acts as a scheduler, a note taking app for meetings, and a database for team projects. Team members can share updates and perform tasks directly in Notion. The site can also help teams or departments centralize announcements, policies, and procedures.
- Cost: free of charge.
- **Why use it?** Although this platform is less user friendly and requires users to adjust to the learning curve, this free site creates a centralized workspace for day-to-day tasks.

Essay.App



- www.essay.app
- Despite great technological advancements, word processing technology has minimally changed since 1985. Professionals aiming to improve writing skills (e.g., drafting/editing papers, grants, cover letters, or resumes) should consider Essay - an online writing platform that contains more advanced build-in writing tools compared to Word or Google Docs.
- Essay tools train the writer to improve word use and sentence structure to form more coherent, enticing ideas.
- There are four parts in the software: Outline, Produce, Rewrite, Reorder.
 - **Outline:** allows the writer to quickly reorder sections by dragging and dropping. Users can organize and structure their writing in one visual space.
 - **Produce:** allows the writer to freely write his/her ideas without distractions.
 - **Rewrite:** breaks up each sentence to carefully proofread without being bogged down by sentences on top of each other. The software allows the user to click on each sentence and rewrite it, while saving the original sentence.
 - **Reorder:** is the last phase where sentences can be dragged and dropped in the right order to make a more coherent argument.
- Cost: Essay is that it is only offered through a subscription of \$6.00/month, \$48.00/year, and \$249.00 for lifetime access. The platform does offer a 14-day free trial period.
- **Why use it?** Essay is a great platform for professionals interested in improving their writing skills for formulating their ideas onto paper. Each of the four steps engages the writer and enhances their various skills needed for successful writing.

Canva



- www.canva.com/
- Canva, yes without an "s" at the end and not the Rutgers learning management system, is a graphic design website for resumes, lesson plans, memes, posts, flyers, and presentations.
- The platform contains a library of stock photos, fonts, shapes, and 250,000+ free templates. Like Google Docs, finished or in-progress designs can be saved and shared with others. Users can review/edit with use of comments on project templates for collaborators to view and reply.
- Not only is Canva a designing platform for professionals, the site offers templates for creating cards, invitations, handouts, etc.
- Cost: While the free version of Canva is limited, a subscription version Canva Pro (119.00/year/user) provides a larger premium library of stock photos, more AI design tools, 1TB of cloud space (vs. 5GB) and 100+ million templates (vs. 250,000+).
- **Why use it?** Overall, Canva is a very user friendly designing platform that extends beyond the professional setting and is a great starting platform for users to advance their designing skills.

Conclusion

Staying up to date on the latest educational technologies and trends is vital in making a continuing impact on staff, peers, and students. These diverse platforms provide the tools to create educational materials for in-services, lectures, and presentations for internal conferences. From Slidesgo, Prezi, Essay, Canva, to Notion, professionals will be able to sharpen their skills for the workplace.



Reflection on IPPE Hospital Rotation at Matheny Medical and Education Center

Prepared by Jessie Lee, PharmD Candidate 2024

Before my IPPE rotation at Matheny Medical and Educational Center, I had no experience in a hospital pharmacy. As I have always been interested in a career in a clinical setting, I was looking forward to my first clinical exposure as a pharmacy student. Matheny is a special hospital for children and adults with complex developmental disabilities, where most patients have limited communication and motor skills, making them unable to take care of themselves. Therefore, direct support professionals, or DSPs, play a crucial role in bridging the gap between healthcare professionals and patients. Amongst many other responsibilities, DSPs provide intensive personal care, such as hygiene and safety of the patients; conduct close monitoring of the patients at their bedside; and communicate any problems or changes in the patient's status with the healthcare professionals. The DSPs' ability to interpret the patient's facial expression and body language and discern changes in their status greatly partake in improving the patient's quality of life.

Matheny has patients with a wide range of uncommon conditions, including Lesch-Nyhan Disease (LND), which is one of the first disorders that I learned about during the first few days of my rotation. It is a rare x-linked, recessive disorder involved with cognitive impairment, hyperuricemia, and renal impairment, with the hallmark symptom of involuntary self-destructive behaviors. Immediately upon the diagnosis, the patient's teeth must be removed to keep them from chewing off their lips and fingertips. In addition, utilizing protective devices such as gloves is essential for preventing these patients from harming themselves and their caregivers. The treatment is mainly focused on physical, occupational, and behavioral therapies with occasional use of anticonvulsants. Hence, DSPs play an extremely crucial role here, again, in assisting patients with daily activities as they are restrained from doing so.

Understanding the roles of other healthcare professionals and learning about rare disorders were invaluable experiences. I realized providing care for patients with such complex disorders requires immense patience and undivided attention from each one of the healthcare professionals on the team. I hope to be a part of a multidisciplinary team one day and be able to contribute my knowledge and skills as a pharmacist to provide the most optimal care for patients.





Clinical Pearl: Hydrocortisone in Severe Community-Acquired Pneumonia

Prepared by Ruo Jie Wu, Kruti Rao, Sarah Dean, PharmD Candidates 2024

Dequin PF, Meziani F, Quenot JP, et al. Hydrocortisone in severe community-acquired pneumonia. N Engl J Med. 2023; 388:1931-1941.

The purpose of this study was to investigate whether the use of hydrocortisone, a type of glucocorticoid, could potentially lower the mortality rate in individuals suffering from severe cases of community-acquired pneumonia. This was a phase 3, multicenter, double-blind, randomized, placebo-controlled trial including patients over 18 years of age who were admitted to one of the participating intensive care units for severe community-acquired pneumonia. The severe pneumonia was defined as one of the following present: initiation of mechanical ventilation with the positive end-expiratory pressure level of at least 5 cm of water; initiation of oxygen administration through a high-flow nasal cannula with a $\text{PaO}_2\text{:FiO}_2$ ratio <300 , with a $\text{FiO}_2 \geq 50\%$; an estimated $\text{PaO}_2\text{:FiO}_2$ ratio <300 for patients wearing a nonrebreathing mask; or a Pulmonary Severity Index score >130 . The study excluded patients with a do-not-intubate order, pneumonia caused by influenza, or septic shock. The study had a total of 800 patients, but it did not meet the required power as it needed 1200 patients. Regarding the regimen, 400 subjects received hydrocortisone given intravenously at 200 mg daily for either 4 or 8 days, followed by tapering for a total of 8 or 14 days, and 395 subjects received a placebo. In addition, all patients received standard therapy, which consisted of antibiotics and supportive care.

The primary outcome was death from any cause by day 28. This came out to show a statistically significant decrease in the hydrocortisone group (6.2% hydrocortisone vs 11.9% placebo, $p = 0.006$). A subgroup analysis including patients with a $\text{CRP} > 15$ also showed better outcomes in mortality compared to the placebo group.

Secondary outcomes included death from any cause by day 90, length of ICU stay, noninvasive ventilation or endotracheal intubation among patients who were not receiving ventilation at baseline, initiation of vasopressor therapy by day 28, number of ventilation-free days and vasopressor-free days by day 28, change in $\text{PaO}_2\text{:FiO}_2$ ratio by day 7, SOFA score change by day 7, and quality of life by day 90. None of these secondary outcomes resulted in a significant difference. The only statistically significant adverse effect was the increased usage of insulin in hydrocortisone group patients (median 35.5 units/day in hydrocortisone group vs. median 20.5 units/day in placebo group, $p < 0.001$).

Limitations of this study included: no collection of ethnic minorities, the inclusion of a small percentage of immunocompromised patients, no isolation of a pathogen, and the primary endpoint of mortality was less than expected, which may indicate a lower severity of illness than anticipated.

BOTTOM LINE: Hydrocortisone can potentially decrease mortality in ICU patients with severe community-acquired pneumonia. However, further trials must be conducted to determine if it should be adopted as a standard adjunctive treatment.

A background image showing various pieces of laboratory glassware, including Erlenmeyer flasks and graduated cylinders, some containing liquids. The glassware has various markings and labels, such as '10/13', 'EXELO', '1000CM', '10CM', 'N 20°C', 'BS 604', '10', '9', '8', '7', '6', '5', '4', '3', '2', '1', 'APPROX', and '600ml'.

DRUG SHORTAGES: PLATINUM- CONTAINING AGENTS (CISPLATIN AND CARBOPLATIN)

*Prepared by Mudita
Modgil, PharmD
Candidate 2024*

Drug shortages have become a rising problem within the world of pharmaceuticals. The reason for the shortages can vary depending on the medication, and can be due to manufacturing quality issues, production delays at the manufacturer, and delays companies have experienced receiving raw materials and components from suppliers. Discontinuations of medications are yet another factor contributing to shortages. The U.S. Senate Committee reported that there was a record five-year high of 295 active drug shortages by the end of 2022. Many critical medications are on this list and although the average shortage lasts 1.5 years, several medications have been in shortage for over a decade. Drug shortages create more stress for patients and healthcare providers, especially when they are a part of life-saving treatments such as therapy for cancer.

Critical oncologic medications that remain in shortage are cisplatin and carboplatin due to an increase in demand and manufacturing delays. Cisplatin and carboplatin are platinum-based DNA alkylating agents that play important roles in the treatment of a variety of cancers. Cisplatin is approved to be used in bladder, ovarian, and testicular cancer and carboplatin is approved for ovarian cancer. However, there is a multitude of research that supports the off-label uses of these medications for the treatment of cervical, non-small cell lung, head and neck, gastric, endometrial, and esophageal cancers. Without these treatments, providers are left to utilize different regimens that may not be as effective or potentially have greater side effects. With such a wide range of indications, cisplatin and carboplatin remain at an increased demand. The cisplatin shortage was first reported in February 2023 and predicted recovery by Teva Pharmaceuticals is within the fourth quarter of 2023. The shortage of carboplatin was first reported in April 2023 with Hospira and Teva Pharmaceuticals predicting that the full recovery of all available carboplatin dosages will not occur until December 2023.

To guide us during these strenuous circumstances, the National Comprehensive Cancer Network (NCCN) has created a mitigation strategy which will allow for switches to equivalent regimens when possible, use of conservation measures, and clinically appropriate dose reductions or alternatives. The choice of an alternative agent must be patient-specific and based on renal function, liver function, and the neoplasm type and location.

To combat the cisplatin shortage, the FDA has also temporarily increased importation of cisplatin from Qilu Pharmaceuticals. Cisplatin will be distributed through Apotex Corp.'s authorized distributors. Meanwhile, deliveries for carboplatin will continue with the limited supply that manufacturers have on hand and delivery dates vary depending on the availability of dosage forms of the medication.

Drug shortages are accompanied by additional problems that arise such as the new expenses for alternative medications and concerns for counterfeit products. During these times, it is important to monitor whether the pharmacy receives the correct medications. Drug shortages continue to be a challenge and with more medications being added to the list over time, it is imperative that we work towards mitigating the shortages quickly and securely.

More than 90% of large US cancer centers report shortage of life-saving chemo drugs in new survey

 By Jacqueline Howard, CNN
 Published 8:16 PM EDT, Wed June 7, 2023

Drug Shortages Near an All-Time High, Leading to Rationing

A worrisome scarcity of cancer drugs has heightened concerns about the troubled generic drug industry. Congress and the White House are seeking ways to address widespread supply problems.

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FYI- FUTURE INTERPROFESSIONAL EDUCATION DATES

At EMSOP, we believe that interprofessional education (IPE) is vital in training competent future pharmacists. All students must participate in at least one IPE event during their APPE's. Here are *some* upcoming IPE events that the students may be participating in:

WED 9/20 (8AM-6PM)	CV AND RESPIRATORY SIMULATION CASES AT EMSOP
WED 10/25 (8AM-6PM)	GI AND ONCOLOGY SIMULATION CASES AT EMSOP
THU 11/2 (2-5PM)	CVA CASE (VIRTUAL)
WED 12/13 (8AM-6PM)	INFECTIOUS DISEASE SIMULATION CASES AT EMSOP
1ST FRIDAY OF EACH MONTH (8AM-12PM)	EMERGENCY MEDICINE SIMULATION AT EMSOP
SELECT FRIDAY AFTERNOONS (2-5PM)	SPICE ORAL MEDICINE AND SPECIAL CARE CASES (VIRTUAL)

Exact dates TBD: Joining Forces at Robert Wood Johnson
Medical School, Osteoporosis and Fall Risk Screening
(virtual)