

Message from the President

Greetings OCCP Members,

I am so excited to be returning to in-person meetings soon! I hope to meet many of our members at our Fall Meeting in October. The planning committee has worked extremely hard to make this event an amazing time together filled with educa-

tional programming and networking. In addition to our Fall Meeting, OCCP is proud to serve as one of the 2022 conference hosts for The Ohio Pharmacy Advocacy Symposium.

This year's event will explore strategies for advocating across the spec- *Message from the President continued on page 2*

OCCP Leadership

Jessica Hoover, PharmD, BCPPS
President

Molly Amos, PharmD, BCACP
President-Elect

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Immediate Past President

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Planning Committee Co-Chair

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Planning Committee Co-Chair

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Communications Committee Co-Chair

Zach Krauss, BSPPS, MBA
Communications Committee Co-Chair

Keith Posendek, PharmD, BCPS, BCGP, BCCP
Newsletter Editor

Fall Meeting

Friday October 28th, 2022

IN PERSON

Tri-C East Corporate College

4400 Richmond Road, Warrensville Heights, OH 44128

Registration Begins at 7:30am

We have an exciting program for the meeting, including:

- ◆ Continuing education credit for Ohio Pharmacy Law and Medical Safety (1 hour each)
- ◆ Pharmacy Trainee and Preceptor Topics
- ◆ Clinical Pearls

Registration will be open through October 14th, 2022

Registration Fees (includes boxed lunch):

Students: \$35

Residents: \$50

OCCP Pharmacist Members: \$85

Pharmacist Non-members: \$110

Pharmacy Registration + Membership: \$125

Message from the President continued

President Message continued from page 1

trum of professional pharmacy practice, from advocacy for self to patient advocacy to facilitating change in your practice, your institution and our profession.

If you have not already done so, please remember to renew your membership dues for 2023 and consider volunteering for one of our many committees. Our organization's success is fully dependent on members, like yourself, getting involved and engaged with our organization. More information on our various committees can be found on our website. OCCP thanks you for your continued commitment to our organization and advancing clinical pharmacy practice in Ohio. Thank you for making OCCP a

continued success!

Thank you,

Jessica Hoover



Planning Committee Update

The Planning Committee looks forward to seeing everyone for the Fall meeting on October 28, 2022 at Tri-C Corporate College East. To kick off the morning, Donnie Sullivan, RPh., Ph.D., Professor of Clinical Pharmacy at The Ohio State University, will present continuing education on pharmacy law and Mary Pat Bulfin Pharm.D., BCPS, a medication safety specialist from the Cleveland Clinic, will present on medication safety.

Register now to get your mandatory continuing education requirements fulfilled! In addition to CE, there will be two learning tracks with content directed toward student/resident and preceptor development, respectively.

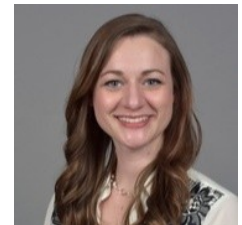
After lunch and the business meeting there will be a variety of clinical pearl presentations to pique your professional interest prior to conclusion of the meeting at 3pm.

Thank you,

Katherine Knudsen

Amanda Mertz

Bhavin Mistry



Membership Committee Update

The membership committee is in the process of finalizing matches for the 2022-2023 Mentorship Program. A survey link was sent to all OCCP members as well as university SCCP chapters with a deadline of 9/30/22. Anyone still interested in participating in the OCCP Mentorship Program should contact the membership committee Co-Chairs.

Thank you,

Rachel Passe

Joe Guidos



Advocacy Committee Update

We hope to see you at this year's Ohio Pharmacy Advocacy Symposium which will be held at The Ohio State University on Friday, October 14, 2022.

Since its inception in 2014, four successful symposiums have taken place. We are grateful for support from OSU and OCCP, as well as the Ohio Pharmacists Association, the Ohio Society of Health-System Pharmacists and the Council of Ohio Colleges of Pharmacy.

This year's event will explore strategies for advocating across the spectrum of professional pharmacy practice, from advocacy for self to patient advocacy to facilitating change in your practice, your institution and our profession. Speakers include local, state and national leaders in health care and advocacy. One hour of ACPE-accredited Medication Safety Continuing Pharmacist Education will be provided.

The symposium will include: (1) a keynote presentation by Anne Burns, Vice President, Professional Affairs for the American Pharmacists Association; (2) a medication safety CE for pharmacist and separate student programming; (3) an Ohio Board of

Pharmacy Update on Workforce by Cameron McNamee, Director of Policy and Communications for the Ohio State Board of Pharmacy; (4) awarding Matt Dolan legislator of the year; and (5) an Interprofessional Panel on Advocacy.

Stay safe and healthy, and we will continue to provide advocacy updates as they arise!

Thank you,

Katie McMillan

Ukwen Akpoji



Communications Committee Update

Thank you so much to all those who submitted articles for the Fall 2022 newsletter. We are so grateful to the members of the committee who helped with the review process this year, we couldn't produce the newsletter without them!

Have interest in submitting an article or helping to review articles for upcoming newsletters? Contact Zach Krauss (zacharykrauss@cedarville.edu), or submit an article via our website (occpweb.org). Requirements include a maximum of around 500 words, a clinically relevant topic, and at least one author is an OCCP pharmacist member.

Follow us on our social media pages to stay up to date with all OCCP activities:

Facebook: Ohio College of Clinical Pharmacy

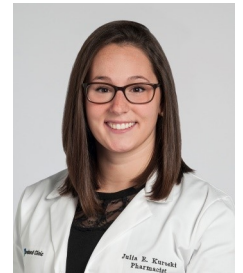
Instagram: _OCCP

If you have general questions about your account or the OCCP website, please contact Julia Kuroski (kuroskj@ccf.org) or through the website at occpweb.org/contact.

Thank you,

Julia Kuroski

Zach Krauss



Steering Committee Update

The Steering Committee met in August 2022 to discuss future directions of the organization and how to provide quality programming and benefits to our membership.

We are working to develop a survey which will be sent out shortly after the Fall 2022 OCCP Meeting to assist with ensuring that this organization is meeting the needs of our membership.

We are also looking for people to join the Steering Committee, so if you are interested in joining and/or have any ideas for the future of the organization, please reach out to me!

Thank you,

Molly Amos



Nominations Committee Update

The nominations committee would like to congratulate Zach Krauss and Alana Knapke for winning the OCCP Student Travel Award! The Student Travel Award was established to help with the cost of attending the ACCP annual meeting. This year the meeting will take place in San Francisco and I am excited to have two Ohio students joining us for this opportunity.

In the Spring we will be accepting applications for our BPS Awards and Pharmacist of the Year. If you know anyone who would be interested in these honors please direct them to our website where more information will be posted in the Spring.

Lastly, we are in need of a new nominations committee chair. If you, or someone you know, would be interested in leading this exciting group please email me at hooverj4@ccf.org for more information!

Thank you,
Jessica Hoover



Student Chapter Update: NEOMED

The NEOMED SCCP Chapter would like to remind everyone of important upcoming dates and events:

- 8/31 – Recruitment of new members through a student and resident panel
- 9/1 – Local competition for ACCP Clinical Challenge
- 9/12 – NEOMED Organization Fair for recruitment of new members
- 9/21 – September meeting about biostatistics and literature evaluation with Dr. Frazee of Cleveland Clinic Akron General

Student Chapter Update: The University of Findlay

The University of Findlay SCCP is very excited for the upcoming semester. We recently held our first meeting of the semester to welcome the new members from the class of 2028. At this meeting, we got to know new members, as well as tell them about what SCCP, OCCP, and ACCP do, what clinical pharmacy is, and what opportunities may lie ahead in this area of pharmacy. We have also begun planning the eighth annual “Pharmal,” a formal dance organized for students, faculty, and alumni to reconnect during the university’s homecoming weekend.

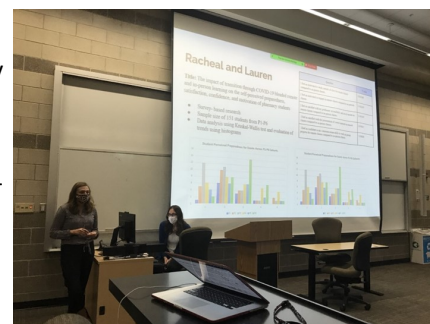
In the future, we are looking forward to learning about different areas of clinical pharmacy to explore and listening to clinical

pharmacists who have agreed to talk about their vocation, as well as useful things to know before starting internships, rotations, or residencies in their field. This year, the chapter has taken an interest in cardiology, am-



bulatory care, and emergency medicine, and we hope to welcome speakers of these backgrounds to share their experiences.

In the near future, we will also be having a fundraiser, selling pins to students to go on their white coats. We also plan on continuing the tradition of our annual trivia night, held for students and faculty to test their pharmacy knowledge, as well as our residency showcase, which informs students about the details of a residency from different perspectives, like a former resident and residency coordinator.



We plan to also hold a “Research Palooza,” which is an opportunity for students to share their research and for others to learn about how research works and what opportunities are at the university. We are planning on having a year that is both informative and fun, and are excited to get started!

Student Chapter Update: The University of Toledo

The spring semester of the 2021-2022 academic year was quite busy for the University of Toledo College of Pharmacy and Pharmaceutical Sciences (UTCPPS) Student College of Clinical Pharmacy (SCCP) chapter. It was the first spring semester back in person since 2019, so our chapter members made the most of their time together and were able to host many events and fundraisers.

In January, the chapter held its annual Residency Panel in coordination with the UTCPPS's Student Society of Health-System Pharmacists chapter. The panel was comprised of a diverse group of PGY1 and PGY2 residents from multiple health-system and community sites in the region. The panel allowed students to ask questions of the current residents regarding their experiences in pharmacy school, path to residency, how to become a standout candidate, and the ins and outs of both regional and national residency showcases. This panel allowed student pharmacists to get a better idea of what to expect of the residency process and enhance their preparation.

In April, UTCPPS SCCP chapter held its Ninth Annual Research Symposium for students within the UTCPPS. The symposium provided seven student researchers an opportunity to present their work to their faculty and peers, while increasing awareness of the wide variety of research opportunities within the college. William Messer, Jr, PhD, served as the keynote speaker at the event.

During our monthly UTCPPS SCCP general meetings, chapter members were provided with opportunities to learn about different areas of clinical pharmacy or further develop themselves as student pharmacists. Kelsey Brebberman, PharmD discussed her career path as a cardiology resident and now as a clinical pharmacist. The chapter also hosted the Ohio College of Pharmacy Advocacy Committee Co-Chair, Katelyn McMillan, PharmD, BCACP, who reviewed current legislative issues, how to identify legislators, and appropriate methods of expressing concerns to legislators. Each UTCPPS SCCP meeting was designed to focus on a different area of professional development to suit the diverse interests of

our members and provide further opportunities for growth and learning.



The UTCPPS SCCP chapter is proud to announce that our ACCP Clinical Research Challenge team placed within the top 20 teams in the nation after advancing to the third round of the competition. The team members were Christina Beran (captain), Sarah Beecroft, Madeline Gutta, and Ryan Kreill (alternate).

In addition to the chapter seeing success in the ACCP Clinical Research Challenge, a team was selected to compete in the ACCP Clinical Pharmacy Challenge in the fall. Congratulations to Alana Knapke (captain), Christina Beran, Ethan Shell, Cole Jerousek (alternate) and Hanna Rowell (alternate). Good luck!

In the early weeks of April, we had our chapter elections for the 2022-23 executive board. The new executive board is pictured below (L-R): Rachael Pirrami (President-Elect), Rosie Fekete (Secretary),

Madeline Gutta (President), Bryce Gunner (Programming Coordinator), Jennifer Oziri (Treasurer). The 2022-2023 Executive Board is very hopeful for this academic year now that there are limited COVID-19 restrictions.

The Fall 2022 semester will be an exciting one, as SCCP will have the opportunity to interact with incoming student pharmacists at the P1 orientation picnic. Following this event, UTSCCP will once again be hosting the 9th Annual Trivia Night to raise money for the Community Care Clinic, a multidisciplinary, student-run, free health clinic that serves the uninsured and underinsured citizens in Northwest Ohio. We are looking forward to another great year where we can engage our members and support their personal and professional development.



Finally, the UTCPPS SCCP chapter is honored to have been selected as the winner of the 2022 ACCP Outstanding Chapter Award. We will be sending two SCCP members to the ACCP Global Conference in San Francisco, CA in October to deliver a presentation about the chapter. With the \$1000 award, the UTCPPS SCCP chapter will be hosting a leadership conference in Spring 2023 for the SCCP student leaders from each of the pharmacy schools in Ohio. We are excited for this opportunity to share ideas with other schools of pharmacy in the state.

Mounjaro™ (tirzepatide): A novel dual-action therapy for the treatment of Type 2 Diabetes Mellitus

Nick Ridenour, PharmD Candidate, The University of Toledo, Class of 2024; Julie A. Murphy, PharmD, FASHP, FCCP, BCPS

Background:

In May 2022, the FDA approved Mounjaro™ (tirzepatide) for the treatment of Type 2 Diabetes Mellitus (T2DM) as adjunct therapy to diet and exercise.¹ T2DM accounts for 90-95% of all Diabetes Mellitus diagnoses, caused by inadequate pancreatic β -cell insulin secretion leading to insulin resistance.² Glucagon-like peptide-1 (GLP-1) is an incretin hormone that is responsible for 50-70% of insulin secretion after oral glucose consumption. For patients with T2DM, this GLP-1 incretin effect is diminished or absent.³ Glucose-dependent insulinotropic polypeptide (GIP) is another incretin hormone that does not function as well as it should in patients with diabetes. It has become a target of interest for emerging drug therapy. While GIP alone has inconclusive evidence for improving glycemic control, the dual-agonist effect of stimulating GLP-1 and GIP receptors has synergistic benefits for β -cell function, insulin secretion, and potential weight loss.^{4,5}

Approval of Tirzepatide:

The approval of tirzepatide for T2DM treatment was based on the results of the SURPASS trials.^{1,6} SURPASS-1 was a randomized, double-blind, placebo-controlled study to assess the efficacy and safety of three tirzepatide doses compared to placebo. Participants experienced inadequate glycemic control from diet and exercise alone and were naïve to injectable diabetes therapy. Compared to placebo participants receiving tirzepatide 5mg, 10mg, or 15mg demonstrated a decrease in baseline HbA1C of -1.87%, -1.89%, and -2.07%, respectively ($p < 0.0001$), and a weight loss of -7kg, -7.8kg, and -9.5kg, respectively ($p < 0.0001$), over a 40-week period.⁷ These results were echoed in SURPASS-2 when tirzepatide was compared with semaglutide for glycemic control over 40 weeks.⁸

Role of Tirzepatide:

Tirzepatide is administered subcutaneously with a starting dose of 2.5mg once weekly for four weeks, and then increased to a maintenance dose of 5mg once weekly. Dose titrations may occur in 2.5mg increments every four weeks up to a maximum dose of 15mg weekly.¹⁰

Gastrointestinal adverse reactions are common with tirzepatide, with nausea being most frequent in 18-22% of patients. Other notable side effects include diarrhea (12-17%) and decreased appetite (7-9%).^{7,8,10}

Tirzepatide has similar warnings, drug interactions, and contra-

indications as GLP-1 agonists. Tirzepatide has a black box warning for patients with or a history of medullary thyroid cancer and multiple endocrine neoplasia 2.¹⁰ Tirzepatide has caused sinus tachycardia within the first 4 weeks of administration and should be used with caution in patients on other hyperglycemic agents due to a risk of hypoglycemia.¹⁰ Severe hypoglycemia (< 54 mg/dL) was not reported in any SURPASS trials.^{7,8,11,12} Tirzepatide has not been studied in pregnant or nursing patients, or those with poor kidney function and pancreatitis.

Tirzepatide shows promise as a weight loss medication, having helped patients lose between 7 and 11.7kg.^{7,12} Four of the five SURPASS trials also listed benefits of tirzepatide for weight loss, but only as a notable event.^{7,8,11,13} For this to be considered a plausible obesity treatment, more studies are needed.

Conclusion:

Tirzepatide is the first drug in a novel class of GLP-1/GIP agonists for the treatment of T2DM. The American Diabetes Association 2022 guidelines have no official recommendation for tirzepatide's place in therapy.⁹ Tirzepatide's place in therapy would likely fall in line with current GLP-1 agonist recommendations; however, the cardiovascular benefits seen with GLP-1 agonists have yet to be observed with tirzepatide. Current trial data suggests tirzepatide may be more beneficial than other injectable non-insulin treatment regimens, particularly in obese patients, but more studies must be conducted. Presently, tirzepatide boasts a promising treatment option for T2DM, and may become a staple in future therapeutic recommendations based on current data.

New Drug Update

Mounjaro™ (tirzepatide): A novel dual-action therapy for the treatment of Type 2 Diabetes Mellitus

Nick Ridenour, PharmD Candidate, The University of Toledo, Class of 2024; Julie A. Murphy, PharmD, FASHP, FCCP, BCPS

New Drug Update Continued from Page 6

Table 1 – Summary of SURPASS trials⁴

Study*	Comparator	Primary Endpoint	Results				
SURPASS-1	Placebo	HbA1c change from baseline at week 40		5mg	10mg	15mg	
			HbA1c (%)	-1.87	-1.89	-2.07	
			Weight (kg)	-7	-7.8	-9.5	
Results significant (p<0.0001) compared to placebo.							
SURPASS-2	Semaglutide as add-on therapy to metformin	HbA1c change from baseline at week 40		5mg	10mg	15mg	Semaglutide
			HbA1c (%)	-2.01	-2.24	-2.30	-1.86
			Weight (kg)	-7.6	-9.3	-11.7	-5.7
Results significant (p<0.05) compared to semaglutide.							
SURPASS-3	Insulin degludec as add-on to metformin, +/- SGLT2 inhibitors	HbA1c change from baseline at week 52		5mg	10mg	15mg	Degludec
			HbA1c (%)	-1.93	-2.20	-2.37	-1.34
			Weight (kg)	-7.5	-10.7	-12.9	+2.3
Results significant (p<0.0001) compared to degludec.							
SURPASS-4 [†]	Titrated insulin glargine with metformin, sulfonyl-urea, or SGLT2 inhibitor	HbA1c change from baseline at week 52		5mg	10mg	15mg	Glargine
			HbA1c (%)	-2.24	-2.43	-2.58	-1.44
			Weight (kg)	-7.1	-9.5	-11.7	+1.9
Results significant (p<0.0001) compared to glargine.							
SURPASS-5	Placebo as add-on therapy to titrated insulin glargine.	HbA1c change from baseline at week 40		5mg	10mg	15mg	Placebo
			HbA1c (%)	-2.11	-2.40	-2.34	-0.86
			Weight (kg)	-5.4	-7.5	-8.8	+1.6
Results significant (p<0.001) compared to placebo.							

*All studies used 5, 10, and 15mg dosing vs comparator.

[†] Patient population specifically included those with increased cardiovascular risk.

References:

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Clinical Pearl

Emergency Medicine Pharmacist Non-Traditional Clinical Services

Joe Guidos, PharmD, BCPS, BCCCP; Lisa Scherer, PharmD, BCPS; Luke Fawcett, PharmD, BCPS

In the ever-evolving world of healthcare, pharmacists are integrally involved in process improvement opportunities that allow us to better patient outcomes and experiences. Emergency Medicine Pharmacists (EMPs) provide an array of different services to initiate these process improvements. In addition to the many clinical pharmacy services, which may include code response, rapid sequence intubation, thrombolytic preparation for strokes, culture callback protocols, and other clinical consults, EMPs at Southwest General (SWG) wanted to explore additional services we could provide to patients in our community.

Venous thromboembolism, consisting of pulmonary embolism and deep vein thrombosis, is a common presentation to emergency departments and affects nearly 10 million people annually worldwide.¹ Patients who are eligible for safe outpatient treatment and do not require admission may be discharged from the emergency department (ED) on a direct oral anticoagulant (DOAC). Potential options for DOACs include apixaban and rivaroxaban. Locally, there are few community pharmacies that stock starter pack preparations, which has led to dispensing loose tablets with tapering directions or delays in treatment if the product has to be ordered. Either of the aforementioned situations could potentially cause decreased adherence to therapy. SWG has a community pharmacy located in our hospital lobby, which provides a meds-to-beds service for inpatient discharges but has limited evening and weekend hours. With the limitations in DOAC starter pack availability, we saw an opportunity to fill a hole to improve patient adherence to anticoagulant therapy.

In May 2020, SWG EMPs requested access to our Cerner retail pharmacy software in order to stock and dispense DOAC starter packs directly from our ED. Bristol Myers Squibb and Janssen provide free 30-day trial cards for apixaban and rivaroxaban, respectively. Utilizing these 30-day trial cards, the EMPs process outpatient prescriptions into our retail pharmacy software, fill, label, and dispense the DOAC starter pack just as if it were to come from a retail pharmacy. SWG EMPs stock a limited supply of both apixaban and rivaroxaban starter packs, retail pharmacy labels, and bags in a locked cabinet within our ED. All DOAC starter packs are dispensed using the 30-day trial cards, which allows the EMPs to provide this service without any monetary transactions taking place. Since program implementation, SWG EMPs have dispensed over 100 DOAC starter packs to date. With the success of the DOAC starter pack-dispensing program, we were able to expand this service to include patients with new-

onset atrial fibrillation who did not require admission. Utilizing 30-day trial cards, SWG EMPs can dispense a 30-day supply of apixaban or rivaroxaban tablets prior to ED discharge.

In addition to DOAC dispensing, we saw an opportunity to improve ED throughput with our rabies vaccination process. Centers for Disease Control and Prevention (CDC) data from 2020 reports approximately 5,000 animal rabies cases annually.² Emergency departments are a common healthcare point of contact for evaluation and treatment for patients with potential rabies exposures. Rabies post-exposure prophylaxis (PEP) consists of human rabies immune globulin (HRIG) and rabies vaccine given on the day of exposure with subsequent doses given on days 3, 7, and 14 for immunocompetent patients without prior rabies vaccinations.

Patients often return to the ED for their subsequent three doses of rabies vaccine. These patients often had to wait several hours to be seen in the ED just to receive the additional vaccines, resulting in patient dissatisfaction and occupying a patient room for an extended period. This provided another opportunity for EMPs to get involved in a process improvement initiative. In collaboration with ED leadership and registration, we were able to develop a process to register these returning patients as an outpatient encounter when they present to our ED registration desk. After the patient meets with ED registration, the EMPs are contacted in order to process the vaccine order and remove the rabies vaccine from our automated dispensing cabinet. The EMPs bring the patient back to a private location, then prepare, administer, and document the subsequent vaccine. Patients are discharged after a short observation period ensuring no reactions to vaccination occur. This process change has improved our ED throughput and patient satisfaction due to significantly shorter and more efficient visit times.

Emergency medicine pharmacists are in a position to provide some non-traditional services that can improve patient care, outcomes, and satisfaction. Opportunities for pharmacists continue to expand and we are well positioned throughout the healthcare continuum to assist patients in improving not only their own health, but also their experience within the healthcare system.

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1. Khan F, Tritschler T, Kahn SR, Rodger MA. Venous thromboembolism. *Lancet*. 2021 Jul 3;398(10294):64-77. DOI: 10.1016/S0140-6736(20)32658-1.
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