

Mississippi Pharmacist

Quarterly publication of the Mississippi Pharmacists Association | Winter 2021



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MPhA President
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Mississippi Pharmacist

VOL XLVI, No. 4 | Winter 2021 | Growing Stronger Together at MPhA

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This emblem designates *Mississippi Pharmacist* is a member of the State Pharmaceutical Editorial Association, recognizing its high journalistic standards in endeavoring to keep its members well informed on all developments relative to the pharmaceutical profession.

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PRESIDENT'S MESSAGE



Dear Members of MPhA,

This past summer during MPhA's annual meeting, Dr. Meagan Rosenthal gave a presentation titled, "Addressing Burnout in Pharmacy." I thought it would be beneficial to revisit a few points from the presentation as we approach this year's holiday season - a season known for increased demands on our time, especially outside of work. When Dr. Rosenthal discussed strategies to address burnout, items she specifically mentioned were:

- Nurture relationships
- Practice self-care (including sleep, exercise, attending to mental/physical health)
- Draw better boundaries at work
- Improve work-life balance and communication skills
- Engage in stress reduction, mindfulness training, resilience building, meditation

Each of these items, on the surface, seem quite easy to accomplish; however, actually setting aside the time or putting forth the effort to change present habits can be more difficult to put into practice. Simply put, it is often easier to continue a current path than to change direction.

I find it interesting, from personal experience, that stress and burnout sneak up when we are not being attentive to our personal needs. It may appear as a "busy season of life" before we realize that personal neglect badly affects our ability to deliver quality care to patients, adequately attend to important relationships or enjoy the daily flow of our lives. Many of us, in our professional lives, aim to improve the health of our community or grow a business that leads to better outcomes for our region; all of this will be more difficult to accomplish and maintain if we are not attentive to our personal needs in the process. I encourage each of you to reflect on burnout as we approach the holiday season and a new year, then consider how to implement some of the above suggestions for you to move towards a healthier professional life.

With Thanks,

Peyton Herrington, PharmD, AAHIVP

(president@mspharm.org)- for any desired email responses

2020 Recipients of the “Bowl of Hygeia” Award



Barry Rich
Alabama



Robert Kronenberg
Arizona



Mike Smets
Arkansas



Robert Scheidtman
California



Debra Devereaux
Colorado



Mark Petruzzi
Connecticut



Hooshang Shanehsaz
Delaware



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David Mikus
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Tom DeVille
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Mike Bellesine
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Carol Stevenson
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Todd Brown
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Marty Michel
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Christopher Shaffer
Nebraska



Daniel Heller
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Ed Rucki
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Amina Abubakar
North Carolina



David Sandberg
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Tenny Moss
South Carolina



Doug Johnson
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Mark Vaughan
Virginia



Don Downing
Washington



Jose Diaz-Luna
Washington DC



Ron Mabie
Wisconsin



Antoinette Brown
Wyoming

Photo Not Available
Roger Paganelli
New York



The Bowl of Hygeia award program was originally developed by the A. H. Robins Company to recognize pharmacists across the nation for outstanding service to their communities. Selected through their respective professional pharmacy associations, each of these dedicated individuals has made uniquely personal contributions to a strong, healthy community. We offer our congratulations and thanks for their high example. The American Pharmacists Association Foundation, the National Alliance of State Pharmacy Associations and the state pharmacy associations have assumed responsibility for continuing this prestigious recognition program. All former recipients are encouraged to maintain their linkage to the Bowl of Hygeia by emailing current contact information to awards@nasp.us. The Bowl of Hygeia is on display in the APhA History Hall located in Washington, DC.

EXECUTIVE DIRECTOR'S MESSAGE

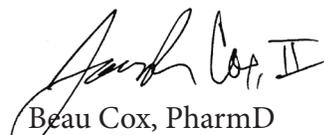


Fellow Pharmacists, it's a great day to be a member of MPhA! We have a lot of events coming up, and I hope that you will be able to join us for some good fellowship and education. First of all, you should have received an email requesting nominations for the MS Board of Pharmacy District 5 seat (south MS). If you live in District 5 and are interested in applying, please fill out the forms and send back to me. Our Last Chance Seminar will be held virtually on December 12th from 4-6 and will have 2 hours of CE pertaining to drugs of addiction. The Capitol Rotunda will be open this year, and we are working on planning a Pharmacy Legislative Day during the session next year. Our Midwinter Meeting will also be coming up in February 2022 with updates from MS Medicaid, the MS Board of Pharmacy, and the MS Legislature. And, we are working on making the 2022 MPhA Annual Convention a great event next year.

As a reminder, MPhA memberships are on a calendar year cycle, so all memberships will be expiring December 31st, 2021 and will need to be renewed. I encourage you to renew as soon as you can and also ask your friends and coworkers to consider joining in 2022. We are offering a free year's membership for anyone that has never been a member before. We will also be focusing on getting our technicians more involved with MPhA and offering CE directed at their needs. We have decreased pharmacy technician membership to \$25 per year and would ask that you consider sponsoring your technicians.

And finally, MPhA is gearing up for an active legislative session this year with the help of our lobbyist, Mark Baker. We will be working to get the "chokehold" language removed from the Medicaid Technical Amendments Bill that currently has NADAC frozen in the MS Medicaid reimbursement formula. We will be working on bills pertaining to PBM reform and have a good foundation with *Rutledge v PCMA* and the Eight Circuit ruling in favor of pharmacy.

As always, I'm thankful to be able to serve as the Executive Director for MPhA and look forward to working with you on making the profession of pharmacy as strong as possible in the great state of Mississippi.


Beau Cox, PharmD
MPhA Executive Director



Dear Members,

Thank you for your membership. As the chair of the Membership Committee, I am writing to let you know that it is time to renew your membership. The Mississippi Pharmacists Association represents **ALL** areas of the profession of pharmacy and is **THE** voice for pharmacy in the state of Mississippi. MPhA provides a number of benefits for its members include networking, continuing education, and acting as an advocate for the profession in Congress, the Mississippi Legislature, and agencies across the state. Founded in 1871, MPhA is one of the oldest state pharmacy associations, and since that time, the association continues to work tirelessly to be a sounding board and resource for its members.

A membership in MPhA includes:

- **Networking opportunities:** Convention, seminars, district meetings, social meet-ups, and more serve as opportunities to reunite with classmates and pharmacists from across the state.
- **Social Media Spotlights:** Are you doing something interesting or share-worthy at your job? We'd love to spotlight you or your company on our social media platforms.
- **Registration Discounts & Continuing Education:** Members receive a discount on registration for all MPhA events including Mid-Winter Meeting, Consultant Seminar, and Annual Convention
- **Quarterly journal:** Mississippi Pharmacist includes up to eight hours of free CE each year, association updates, event coverage, and academic articles. The journal is also an excellent publication opportunity for practitioners and their ongoing research or projects.
- **Advocacy:** Government affairs representation at the Capitol – we have a lobbyist working on behalf of our members for things like pharmacist workload, DIR fees, reimbursement, pharmacist provider status, and other important initiatives.
- **Service opportunities:** The association has several committees and district leadership opportunities for our members to serve and let their voices be heard.

With the year coming to close, it is time to renew your commitment to the profession by **RENEWING** your membership in MPhA by January 1, 2022. You can renew your membership by visiting our website at www.mspharm.org and clicking on Membership or scanning the QR code at the right with your smart phone camera.

We are offering something new this year! **Pharmacy Technicians dues have been amended to \$25 per calendar year.** We encourage you to tell your techs about this amazing deal.

As with anything, you get out of your MPhA members what you put into it. Pharmacy is a profession, and professions require involvement. The Membership committee has been working very hard the last few months to plan more benefits for our Members, and we look forward to your engagement! If you have ideas how the association can improve the work that we do, we would love to hear from you. You can reach the association via phone at 601-981-0416 or emailing info@mspharm.org.

Sincerely,

Jordan Marie Ballou



Ann Franklin

**Pharmacy Manager, District 493 MTM Lead,
Certified Lactation Counselor**

Hometown: Cleveland, MS
Graduation Year: 2012

Hobbies: Actively volunteering to make a community a better place, spending time with my boys, Ole Miss football, helping new moms become successful with breastfeeding

What challenges have you encountered in the transition from student to resident and/or practitioner?

"My first job was with Wilma Wilbanks. She is a legendary pharmacist and philanthropist, challenging me to try to do the same. It took awhile when I first started for people to ask for me instead of Wilma. Ha!"

Why did you join the Mississippi Pharmacists Association?

"I continued my membership post graduation because I see the importance of networking and being active in the association that supports pharmacy practice."

What advice would you give yourself back at the beginning?

"One day at a time. One person at a time."



Brent Powell WCU Student

Hometown: Biloxi, MS
Graduation Year: 2022

Hobbies: Reading (Fantasy), painting, board games, mental health, meditation

Why did you join the Mississippi Pharmacists Association?

"To be apart of an organization dedicated in the improvement of health and well-being of my home state, Mississippi. As public health is ever changing, it is very important to include a diversity of not just people, but minds as well. Different perspectives and experiences are essential in impacting such a complex task such as public health."

Where do you see yourself in 10 years?

"I see myself as a mental health pharmacist in 10 years. As the importance of mental health is becoming more and more apparent, there is an increasing need for healthcare professionals to aid in the complex nature of caring for patient's with mental health issues. I would like to be one of the frontiers as a pharmacist to make a true difference in people's lives."



Carol Anne Kennedy Intrathecal Pharmacist

Hometown: Iuka, MS
Graduation Year: 2005
Hobbies: Kids' activities, Peloton, Ole Miss sports, friends dinners

What challenges have you encountered in the transition from being a student?

"Challenges I have encountered include the responsibility of decisions resting solely on me and finding those reliable mentors to lean on."

Why did you join MPhA?

"I joined for networking and to keep up with the pulse of pharmacy in our state."

What is your favorite part of your job, and what motivates you to get up for work every morning?

"I love helping [patients] improve their quality of life, and I love working with great teammates."



Blake Mancuso UM Student

Hometown: Baton Rouge, LA
Graduation Year: 2023

Hobbies: I like to watch short series, horror movies, and go on walks with friends. I am currently most interested in HIV/AIDs and viral hepatitis research.

Why did you join the Mississippi Pharmacists Association?

"As a pharmacy student, I wanted to begin connecting with members of the profession as soon as possible so I could maximize the amount of knowledge I can gain while in school through learning about others experiences."

Where do you see yourself in 10 years?

"Hopefully, working in an administrative role at a hospital associated with a school of pharmacy so that I can teach part time and continue research."

What motivates you to get up for work every morning?

"I enjoy going to work because it allows me practice the knowledge I've gained. It's as if a whole new part of pharmacy opens up after each module, since I know about the drugs and feel confident, with supervision, to council patients on proper use."



Brooke Felix WCU Student

Hometown: Gulfport, MS
Graduation Year: 2022

Hobbies: Reading, crafting, and spending time with family and friends

What advice would you give yourself at the beginning?

"I would tell myself the field of pharmacy is only limited if you are. Do not be afraid to network and try new things. You never know what new opportunities will arise!"

Where do you see yourself in 10 years?

"I see myself as an ambulatory pharmacist."

What is your favorite part of your job?

"My favorite part of the job is being able to interact with patients and work with other members of the healthcare team to provide optimal patient care."



Dylan Keveryn Floater Pharmacists with Kroger

Hometown: Ridgeland, MS
Graduation Year: 2021
Hobbies: Binging TV shows, video games, and relaxing with my wife and pets

Why did you join the Mississippi Pharmacists Association?

"In order to stay involved with my colleagues and build professional relationships in the world of pharmacy."

What is your favorite part of your job?

"Being a floater, I enjoy being able to work in pharmacies in different areas and see different patient populations."

What challenges have you encountered in the transition from being a student?

"The responsibility of now having a direct role in patients' health without a preceptor's presence."



Dylan Lindsay Clinical Pharmacy Specialist, Specialty Pharmacy Program Accreditation and Quality Management

Hometown: Jackson, MS
Graduation Year: 2014

Hobbies: Cooking, gardening, reading (mostly popular fiction), DIY projects and home improvement, playing Pokémon with my nephews

What advice would you give yourself back at the beginning of your career?

"Make more concerted efforts to be self-reflective and honest about what excites and energizes you. Just because something is difficult or not appealing to others doesn't mean it isn't worth pursuing. Innovation by definition is doing something that few others are."

What challenges have you encountered in the transition from student to resident and/or practitioner?

"Time management was a big struggle for me. Realizing that engagement with the profession is important, but you need to be intentional about maintaining a healthy work/life balance. I think that's something lots of new practitioners struggle with because of the want to establish themselves and their careers."



Meagan Brown Clinical Associate Professor/Coordinator of Community Pharmacy Development & RPD of PGY-1 Community-Based Residency, UMSOP

Hometown: Baton Rouge, LA
Graduation Year: 2010

Hobbies: Cooking, traveling, music, reading, living life to the fullest

What is your favorite part of your job?

"I love seeing the "aha" moment happen with the pharmacy students when in patient encounters. They usually are very intimidated when dealing with patients but then quickly see their training work for them... and their confidence goes up!"

What motivates you to get up for work every morning?

"Beyoncé. No seriously, knowing that the work I do and the people it is for, matter"

Why did you join MPhA?

"I joined MPhA because I quickly learned that in order to feel fulfilled, we need to understand the importance of connection and purpose in a career. The best way to do that is to be connected with an organization that pushes the mission and work of the profession forward - and that is MPhA!"



Regan McIntosh Registered Manager Local Specialty

Hometown: Collierville, TN
Graduation Year: 2023

Hobbies: Working out, traveling, watching any and all Ole Miss sports

What advice would you give yourself back at the beginning?

"You don't have all the answers, and that is ok. Live in the moment because tomorrow will take care of itself. I'm still learning this truth daily!"

Where do you see yourself in 10 years?

"Specialty is my passion. I hope in 10 years to be in the role of Healthcare Specialty Supervisor, managing several specialty pharmacies in a district. I want to be precepting students and residents along the way as well."

What motivates you to get up for work every morning?

"I learned from a mentor in my residency program, Donan Boggess, that you do not have to be the smartest pharmacist to be successful in specialty - you just have to have a strong desire to help people. I am motivated every day to work harder for my patients to get them the best therapy possible, regardless of cost."



Elizabeth Holley UM Student

Hometown: Booneville, MS
Graduation Year: 2022

Hobbies: Watching Broadway shows, spending time with family and friends, and traveling

What is your favorite part of your job?

"I love the versatility of two different jobs. As a student, I feel it is important to immerse yourself in multiple aspects of pharmacy to find your niche. While I am currently unable to work often due to rotations, I am able to experience many aspects of the pharmacy profession and learn something new each day."

What motivates you to get up for work every morning?

"My motivation to get up each morning is the lives I am able to impact by the work I do. Whether in an institutional, community, or specialty setting, patients' lives are being impacted each day by the work we do. Finding your why is crucial to hang on to and use to motivate you each day of work."



Nason Wise UM Student

Hometown: Grenada, MS
Graduation Year: 2022

Hobbies: Mountain biking on the Ridgeland trails, listening to live music, and spending free time at the Jackson Free Clinic.
I am a coffee enthusiast!

What is your favorite part of your job?

"I'll speak to my job as the Co-Director of Pharmacy Specialty Services at the Jackson Free Clinic (JFC). My favorite part of this job is the incredible opportunity to serve patients that would otherwise have no access to healthcare. JFC provides underserved people in the community of Jackson the means to receive high-quality care and free prescriptions from people who are genuinely invested in their care"

Where do you see yourself in 10 years?

"In 10 years, I hope to be settled with my wife, Shelby, in the Jackson area after completing PGY1 and PGY2 residencies. I hope to be practicing in cardiology pharmacy and spending every few Saturdays serving at the JFC as a pharmacist in the clinic I have loved as a student. I plan to be involved with MPhA, investing in students and young professionals like my mentors did for me."



Riley Davis WCU Student

Hometown: Columbia, MS
Graduation Year: 2022

Hobbies: Spending time with family and friends, watching sports, shopping, and going to the beach

What's motivates you to get up for work every morning?

"I truly have a passion for pharmacy and the ability we have to make a big difference in the health of our community. We see these patients more than they see their primary care providers most of the time and knowing that I have the ability to make a difference in their lives motivates me to get up and work hard for my patients every day."

Where do you see yourself in 10 years?

"In 10 years, I hope to be managing a successful pharmacy. I want to continue to learn and use new innovative ways to improve patient care, so [patients] can achieve their best health."

UPDATES FOR THE USE OF SGLT2-IS AND GLP1-RAS

SCOTT ROSS, PHARM.D, PGY1 RESIDENT - MISSISSIPPI STATE DEPARTMENT OF HEALTH
JEREMY.ROSS@MSDH.MS.GOV

NATASHA LEWIS, PHARM.D, PGY1 RESIDENT - MISSISSIPPI STATE DEPARTMENT OF HEALTH
NATASHA.LEWIS@MSDH.MS.GOV

GOAL:

This continuing education activity is being provided so pharmacists can learn or refresh their knowledge about current recommendations for SGLT2-Is and GLP1-RAs.

OBJECTIVES:

By the completion of this activity, the participant will be able to...

- Recall basic knowledge on SGLT2-Is and GLP1-RAs
- Differentiate the new semaglutide dosage forms and packaging from the older version
- Recognize potential non-endocrine uses of SGLT2-Is and GLP1-RAs

INTRODUCTION

Type 2 diabetes mellitus (T2DM) affects more than 34 million Americans today, with about 1 in 10 individuals currently living with risk factors and/or common symptoms of diabetes.¹ According to the State of Childhood Obesity, Mississippi was ranked third among the highest adult rates of diabetes in 2020 at 14.6% (West Virginia was ranked first at 15.7% and Alabama was ranked second at 15%).² Treating T2DM includes medication therapy as well as comprehensive lifestyle modifications, such as weight management, physical activity, blood pressure management, cholesterol management, foot care, and vaccinations to decrease the risk of serious complications.

Two relatively newer classes of diabetes medications include glucose-like peptide 1 receptor agonists (GLP1-RAs) and sodium-glucose cotransporter 2 inhibitors (SGLT2-Is):

- **Glucose-like peptide 1 receptor agonists (GLP1-RAs)** are injectable glucose-lowering medications that work by slowing gastric emptying, increasing glucose-dependent insulin secretion, and decreasing glucose production from the liver.³ Benefits of this class include an A1c reduction of 0.5-1%, low risk of hypoglycemia, and weight loss of 0.3-6.5 kg (dependent on agent used).^{3,4} Three agents in this class also have shown to improve cardiovascular outcomes: dulaglutide (Trulicity®), liraglutide (Victoza®), and semaglutide (Ozempic®). The FDA approved the use of these agents to reduce the risk of major adverse cardiovascular events (myocardial infarction, stroke, and cardiovascular death) based on the REWIND (dulaglutide), LEADER (liraglutide), and SUSTAIN-6 (injectable semaglutide) trials.^{5,6,7} This class of medications is contraindicated in patients with a personal or family history of thyroid C-cell tumors, including medullary thyroid carcinoma.³ Refer to Table 1 for more information about GLP1-RAs.
- **Sodium-glucose cotransporter 2 inhibitors (SGLT2-Is)** reduce the reabsorption of filtered glucose and lower the renal threshold for glucose. This results in an increase of urinary glucose excretion and decrease in plasma glucose concentrations. Benefits of these oral agents include an A1c reduction of 0.5-1% and a reduction in blood pressure.³ Patients should be instructed to take these in the morning due to these agents' diuretic effects, which can lead to dehydration, dizziness, lightheadedness, weakness, fainting, and thirst. Common issues with this class of medication include urinary tract and genital infections as well as ketoacidosis. Canagliflozin also potentially has an increased risk of leg and foot amputations.³ Like the GLP1-RAs, three agents in this class have been shown to provide cardiovascular benefits: canagliflozin (Invokana®), dapagliflozin (Farxiga®), and empagliflozin (Jardiance®). The trials that demonstrated that these agents provide cardiovascular benefit are the CANVAS (canagliflozin), DECLARE-TIMI (dapagliflozin), and EMPA-REG (empagliflozin) trials.^{9,10,11} Refer to Table 2 and Table 3 for more information about SGLT2-Is.

Table I. Clinical Information Regarding Use of GLP-1 Receptor Agonists^{3,8,28,38,39,40,41,42,43,44}

GLP-1 Receptor Agonists						
Mechanism of Action: Stimulates insulin secretion and reduces glucagon secretion in a glucose-dependent manner; slows gastric emptying and increases satiety						
Brand (Generic)	Dosing	Cardiovascular Benefit?	Storage life at room temperature	Combinations/ Other Names	Adverse Events/ Warnings	Counseling Points
Adlyxin (Lixisenatide)	Once daily (SubQ)	No Refer to the ELIXA trial	14 days	Soliqua (insulin glargine/lixisenatide)	Common adverse effects include nausea, vomiting, abdominal pain, and diarrhea (does-related; usually transient)	Report any GI symptoms (nausea, vomiting, diarrhea, abdominal pain) if they become problematic
Bydureon (Exenatide XR)	Once Weekly (SubQ)	No Refer to the EXSCEL trial	28 days		Black Box Warning: risk of Thyroid C-Cell Tumors	Monitor for symptoms of hypoglycemia (higher risk if also taking insulin or insulin secretagogues)
Byetta (Exenatide)	Twice daily (SubQ)	No Based on the EXSCEL trial	30 days		Exenatide XR: can cause injection-site nodules due to its formulation	Report symptoms of pancreatitis (upper-left quadrant abdominal pain, nausea, vomiting)
Ozempic (Semaglutide)	Once Weekly (SubQ)	Yes Refer to the SUS-TAIN-6 trial	56 days	Wegovy (semaglutide SubQ indicated for obesity)	Risk of sustained increases in resting heart rate	
Rybelsus (Semaglutide)	Once daily (Oral)	No Refer to the PIO-NEER-6 trial	N/A		increased risk of hypoglycemia when taken with insulin secretagogues or insulin	Rybelsus: Take at least 30 minutes before first meal, beverage, or other medications. Drink no more than 4 ounces of water with medication.
Trulicity (Dulaglutide)	Once Weekly (SubQ)	Yes Refer to the REWIND trial	14 days			
Victoza (Liraglutide)	Once daily (SubQ)	Yes Refer to the LEADER trial	30 days	Sexenda (liraglutide SubQ indicated for obesity) Xultophy (insulin degludec/ liraglutide)	Use is associated with acute pancreatitis	

In recent years, there have been many updates in recommendations with GLPI-RAs and SGLT2-Is, including new indications. The following information will outline these updates.



UPDATES TO SEMAGLUTIDE DOSAGE FORMS AND PACKAGING

Oral semaglutide (Rybelsus®) is the first oral glucagon-like peptide I receptor agonist approved by the U.S. Food and Drug Administration (FDA) in 2019 to improve glycemic control in adults with T2DM. It is available in three strengths: 3 mg, 7 mg, and 14 mg. The oral medication is taken once daily, at least 30 minutes prior to the first food, beverage, or other oral medications. Patients are instructed to take this medication

with a sip of water (no more than four ounces). Initiate with one 3 mg tablet taken once daily after waking for 30 days, then titrating to 7 mg daily. The dose may be increased to 14 mg if additional glycemic control is required after at least 30 days on the 7 mg dose. Oral semaglutide contains the same Black Box Warning (risk of thyroid C-cell tumors) and contraindications (history of thyroid C-cell tumors) as the injectable GLPI-RAs.^{3,37} Of note, unlike injectable semaglutide, oral semaglutide is not indicated to reduce cardiovascular events.³⁵



Semaglutide (Wegovy™) is a glucagon-like peptide-I receptor agonist (GLPI-RA) injection FDA approved in 2021 for the treatment of obesity. This

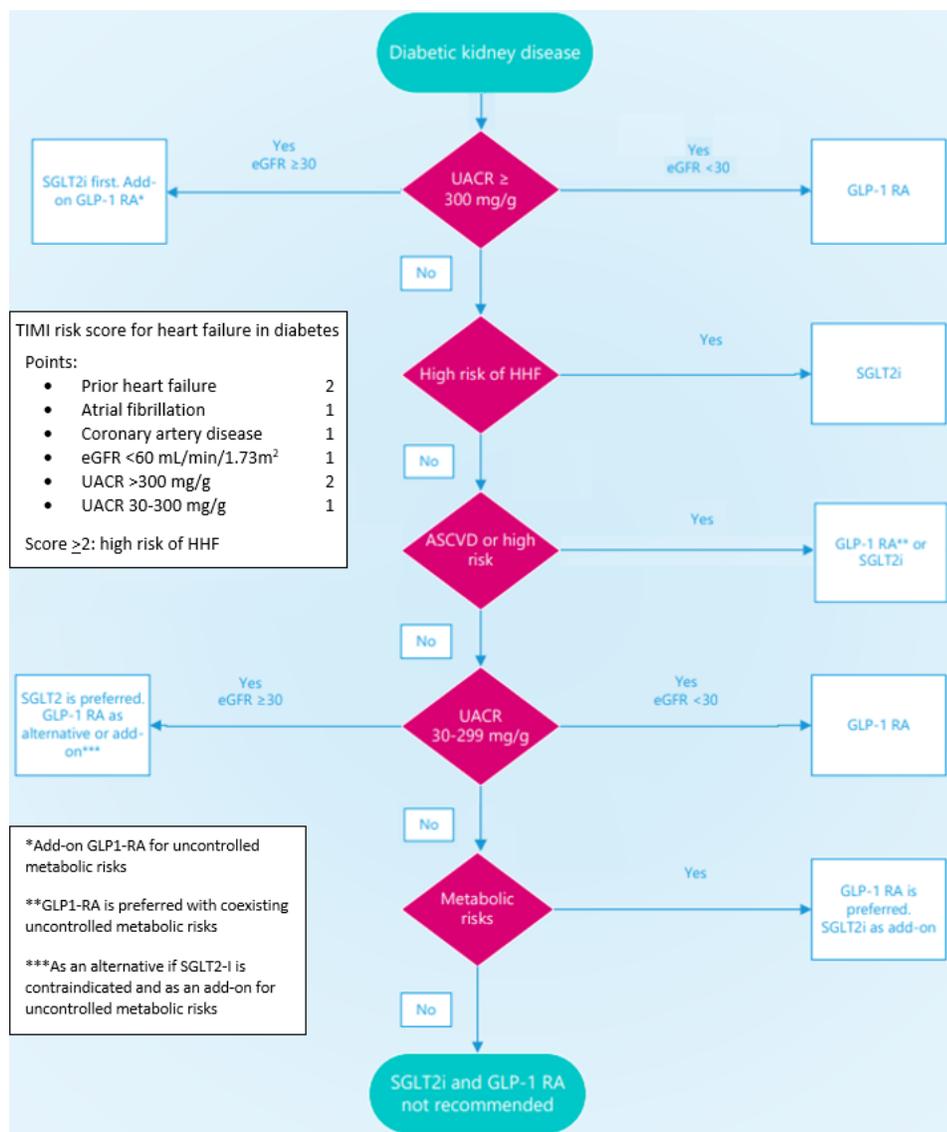
medication is meant to be used in adjunct along with a reduced calorie diet and increased physical activity. It is indicated in adult patients with an initial body mass index of >30 kg/m² or >27 kg/m² in the presence of at least one weight-related comorbid condition, such as hypertension, T2DM, or dyslipidemia. It is available as pre-filled, single-dose pens that deliver doses of 0.25 mg, 0.5 mg, 1 mg, 1.7 mg, and 2.4 mg. It is administered once weekly, preferably on the same day each week, with or without meals. The initial dose is the 0.25 mg dose once weekly. The dose may be titrated every 4 weeks (as tolerated) until reaching the maintenance dose of 2.4 mg once weekly. Like the other GLP1-RAs, Wegovy™ also contains the same Black Box Warning (risk of thyroid c-cell tumors) and contraindications (history of thyroid C-cell tumors). Adverse reactions include nausea, dizziness, vomiting, constipation, abdominal pain, headache, and hypoglycemia in patients with type 2 diabetes.^{8,12} Of note, unlike the injectable semaglutide indicated for T2DM (Ozempic®), Wegovy is not indicated to reduce cardiovascular events. Unlike Ozempic, Wegovy pens come with built-in pen needles for ease of use. Wegovy comes in single-dose pens (vs Ozempic pens which are multidose pens). Wegovy pens can be kept at room temperature for up to 28 days before use (vs Ozempic pens which can be kept at room temperature for up to 56 days before discarding).^{12,36}

SUMMARY OF RECENT UPDATES FOR THE USE OF SGLT2-IS IN HEART FAILURE

SGLT2-Is have demonstrated the ability to provide benefit in patients with heart failure with reduced ejection fraction (HFrEF). They reduce the risk of hospitalization for heart failure by 30%. Furthermore, when GLP1-RAs and SGLT2-Is were compared, patients who were on an SGLT2-I had a 30-40% lower risk of hospitalization due to heart failure vs GLP1-RA users. Based on this information, SGLT2-Is are preferred over GLP1-RAs in patients who are at risk of hospitalization due to heart failure. It is worth mentioning that GLP1-RAs may also have a modest cardiovascular benefit, with a meta-analysis showing that these agents reduce the risk of hospitalization due to heart failure as well (HR=0.91; CI=0.83 to 0.99).¹³

Dapagliflozin (Farxiga®) was recently FDA approved for HFrEF patients with or without diabetes in May 2020.¹⁴ In the trial that inspired this approval, the DAPA-HF trial, dapagliflozin demonstrated the ability to reduce the composite of worsening heart failure or death from cardio-

Decision algorithm for prescribing SGLT2-I and GLP1-RA optimizes heart and kidney protection in patients with diabetic kidney disease³⁴



Adapted from: Li, et al. Clin J Am Soc Nephrol. 2020 Nov 6;15(11):1678-1688.

Table 2. Clinical Information Regarding Use of SGLT-2 Inhibitors^{3,8,29,45,46,47,48}

SGLT-2 Inhibitors					
Mechanism of Action: Blocks glucose reabsorption by the kidney, increasing glucose excretion via urine					
Brand (Generic)	FDA Indications	Cardiovascular Benefit?	Combinations	Adverse Events	Counseling Points
Invokana (Canagliflozin)	T2DM	Yes Refer to the CANVAS trial	Invokamet, Invokamet XR (canagliflozin/metformin)	Common AEs include increased frequency of urination, increased thirst, UTIs, genital infections	Take medication in the morning Drink plenty of fluids to maintain hydration while taking this medication
Farxiga (Dapagliflozin)	T2DM HFrEF CKD	Yes Refer to the DECLARE-TIMI trial	Qtern (dapagliflozin/saxagliptin) Qternmet (dapagliflozin/saxagliptin/metformin) Xigduo XR (dapagliflozin/metformin)	Severe: diabetic ketoacidosis, acute kidney injury Risk of hypoglycemia when combined with insulin or insulin secretagogues	Potential side effects include increased frequency of urination, increased thirst, UTIs, genital infections.
Jardiance (Empagliflozin)	T2DM HFrEF	Yes Refer to the EMPAREG trial	Glyxambi (empagliflozin/linagliptin) Synjardy, Synjardy XR (empagliflozin/metformin) Trijardy XR (empagliflozin/linagliptin/metformin)	Can moderately increase LDL cholesterol levels in blood	This medication can lower blood pressure
Steglatro (Ertugliflozin)	T2DM	No Refer to the VERTIS CV trial	Steglujan (ertugliflozin/sitagliptin) Segluromet (ertugliflozin/metformin)		This medication may increase the risk of developing diabetic ketoacidosis

vascular causes in patients with HFrEF (11.6 events per 100 patient-years in dapagliflozin group vs 15.6 events per 100 patient-years in placebo group; HR=0.74 [CI=0.65 to 0.85]).¹⁵ When used for HFrEF, the FDA approved dose is 10 mg once daily.³¹ The 5 mg dose is not approved for HFrEF.

Empagliflozin (Jardiance[®]) was also recently FDA approved for HFrEF with or without diabetes in August 2021.¹⁶ This was due to the results of the EMPEROR-Reduced trial, which demonstrated the ability of empagliflozin to reduce the composite of cardiovascular death or hospitalization for worsening heart failure in patients with HFrEF (15.8 events per 100 patient-years in empagliflozin group vs 21 events per 100 patient-years in placebo group; HR=0.75 [CI=0.65 to 0.86]).¹⁷ When used for HFrEF, the FDA approved dose is 10 mg once daily, but the dose may be increased to 25 mg once daily for additional glycemic control.¹⁶

Of note, the EMPEROR-Pre-served trial was recently published

in October 2021.¹⁸ This trial studied the effects of empagliflozin in patients with heart failure with preserved ejection fraction (HFpEF). The trial showed that empagliflozin reduced the combined risk of cardiovascular death or hospitalization for heart failure in patients with or without diabetes (6.9 events per 100 patient-years in empagliflozin group vs 8.7 events per 100 patient-years in placebo group; HR=0.79 [CI=0.69 to 0.90]). The results were largely attributed to a lower risk of hospitalization for heart failure. At the time of this CE composition, there had been no recommendations made based on the results of this trial.

SUMMARY OF RECENT UPDATES FOR THE USE OF SGLT2-IS IN CHRONIC KIDNEY DISEASE

Recent evidence suggests that both GLP1-RAs and SGLT2-Is can play a role in preserving renal function. Albuminuria is associated with a higher risk of kidney failure and all-cause mortality. Both GLP1-RAs and SGLT2-Is can reduce the risk of macroalbuminuria (urine albumin-to-creatinine ratio [UACR] >300mg/g) by 20-30% and can reduce albuminuria by 30-40% in those with macroalbuminuria. In patients with low risk for renal failure, GLP1-RAs and SGLT2-Is are both recommended to reduce the risk of macroalbuminuria. In patients at moderate risk of renal failure (defined as UACR 30-300mg/g or eGFR 30-60mL/min without albuminuria), the evidence suggests that SGLT2-Is may be more beneficial in preserving renal function vs GLP1-RAs.¹³ The following treatment algorithms are a summary of recommendations published in the Clinical Journal of the American Society of Nephrology (CJASN).¹³

Dapagliflozin was FDA-approved to delay the progression of renal failure, regardless of the presence or absence of diabetes in 2020. In the DAPA-CKD trial, a primary outcome of either sustained decline in the estimated eGFR of at least 50%, end-stage kidney disease, or death from renal or cardiovascular causes occurred in 9.2% of the dapagliflozin group

Table 3. SGLT2 inhibitor eGFR cutoffs^{30,31,32,33}

Canagliflozin	- Do not initiate if eGFR <30mL/min - Can continue use if albuminuria >300mg/day - Contraindicated in patients on dialysis
Dapagliflozin	- If used for glycemic control, do not use if eGFR <45mL/min - For all other indications, do not <i>initiate</i> if eGFR <25mL/min - May continue use to reduce the risk of eGFR decline, CV death, and HF hospitalization - Contraindicated in patients on dialysis
Empagliflozin	- If used for glycemic control, do not use if eGFR <30mL/min - If used for heart failure, do not use if eGFR <20mL/min
Ertugliflozin	- Do not initiate if eGFR <45mL/min

patients and 14.5% of the placebo group patients (HR=0.61; CI=0.51 to 0.72). The overall effects of dapagliflozin were shown to be similar among participants with type 2 diabetes and those without.¹⁹ The dose that was observed to confer renal benefit is dapagliflozin 10 mg once daily.³¹

Canagliflozin (Invokana[®]) has also been recommended to lower the risk of kidney failure and cardiovascular events in patients with type 2 diabetes and nephropathy. The landmark CREDENCE trial documented the effects of canagliflozin in patients with diabetes and kidney disease.²⁰ The 2019 results demonstrated a lower decrease in occurrence of the composite of end-stage kidney disease, a doubling of the serum creatinine level, or death from renal or cardiovascular causes from 43.2 events per 1000 patient-years compared to 61.2 events per 1000 patient-years seen in the placebo group (HR=0.70; CI=0.59 to 0.82). Patients in the trial were randomly assigned to receive either canagliflozin 100 mg once daily or matching placebo. Based on these results, the FDA approved canagliflozin to reduce the risk of end-stage renal disease in patients with T2DM with an estimated glomerular filtration rate of at least 30 mL/min.²¹

Empagliflozin has been shown to slow the progression of kidney disease and reduce the rates of clinically relevant renal events in patients with T2DM in 2020. The EMPA-REG trial randomly assigned patients to receive empagliflozin 10 mg daily, 25 mg daily, or placebo.²² The incidence of worsening nephropathy was lower in the empagliflozin group compared to the placebo group (47.8 events per 1000 patient-years in the empagliflozin group compared to 76 events per 1000 patient-years seen in the placebo group (HR=0.61; CI=0.53 to 0.70). The overall composite outcome of incidence or worsening nephropathy or cardiovascular death was significantly lower in the empagliflozin group. The findings from this trial supported the hypothesis that empagliflozin significantly lowers the risk of kidney events and can slow the progression of chronic kidney disease in individuals with type 2

diabetes.

Currently, the EMPA-KIDNEY clinical trial is evaluating the effects of empagliflozin on the progression of kidney disease or deaths from heart disease in individuals with chronic kidney disease.²³ Based on the results from the EMPA-REG Outcome trial, researchers are working to delay the need for other treatment options in patients living with chronic kidney disease. The EMPA-KIDNEY trial received Fast Track designation of empagliflozin by the FDA in July 2019. This will be a multinational, double-blind, placebo-controlled clinical trial where patients receive empagliflozin 10 mg or placebo with current standard of care.

The KDIGO guidelines have recently developed recommendations based on research that assesses the effectiveness of SGLT2-Is and GLP1-RAs among patients with T2DM and CKD.²⁴ These guidelines recommend that patients with T2DM, CKD, and an estimated glomerular filtration rate between 30-60 mL/min/1.73 m² should use a SGLT2-I to reduce the progression of decreasing kidney function.

Lastly, a meta-analysis conducted in 2019 supported the use of SGLT2-Is for the prevention of kidney failure in T2DM.²⁵ SGLT2-Is reduce the risk of dialysis, transplantation, or death due to kidney disease (RR 67%, 95% CI 0.52-0.86, p=0.0019), as well as reduced end-stage kidney disease (65%, 0.53-0.81, p<0.0001) and acute kidney injury (75%, 0.66-0.85, p<0.0001). Although there are several limitations to these studies, such as early termination, these medications provide strong evidence of reducing the progression of kidney disease in patients across all studies. Pharmacists should be on the lookout for the future release of semaglutide studies and empagliflozin recommendations specific to kidney disease.

SUMMARY OF RECENT UPDATES FOR THE USE OF GLP1-RAS AND SGLT2-IS IN THE ESC CARDIOVASCULAR DISEASE PREVENTION AND AHA/ASA STROKE GUIDELINES

The table below includes the new recommendations regarding the use of GLP1-RAs and SGLT2-Is from the 2021 European Society of Cardiology (ESC) guidelines.²⁶ These recommendations are based on the results of the previously mentioned trials that demonstrated the cardiovascular benefit of GLP1-RAs and SGLT2-Is.^{5,6,7,9,10,11,15,17,19,20,22}

Summary of new recommendations regarding the use of GLP1-RAs and SGLT2-Is26

In persons with T2DM and ASCVD (atherosclerotic cardiovascular disease), the use of a GLP-1RA or SGLT2 inhibitor with proven outcome benefits is recommended to reduce CV and/or cardiorenal

New In patients with T2DM and CKD, the use of an SGLT2 inhibitor is recommended to improve CVD and/or cardiorenal outcomes.

New In patients with T2DM and HFrEF, use of an SGLT2 inhibitor with proven outcome benefits is recommended to lessen HF hospitalizations and CV death.

In patients with T2DM and TOD (target organ damage), the use of an SGLT2 inhibitor or GLP-1RA with proven outcome benefits may be considered to reduce future CV and total mortality.

The 2021 AHA/ASA stroke/TIA guidelines have also updated their recommendations. The guidelines now recommend that patients with established ASCVD (including ischemic stroke) and diabetes should be initiated on metformin and a GLP1-RA as first-line therapy, regardless of baseline A1c. In diabetic patients at risk for heart failure or CKD (or who have a history of heart failure or CKD), an SGLT2-I should be added to metformin as first-line therapy. This is also due to the results of the previously mentioned trials. 5,6,7,9,10,11,15,17,19,20,22 In patients with established ASCVD and diabetes, GLP1-RAs are recommended over SGLT2-Is due to evidence that GLP-RAs have a direct benefit on stroke outcomes, whereas SGLT2-Is do not. Rather, SGLT2-Is demonstrate their benefit in cardiovascular death, myocardial infarction, and heart failure outcomes.27

CONCLUSION:

In conclusion, there have been major updates in uses for GLP1-RAs and SGLT2-Is in recent years. KDIGO is now recommending GLP1-RAs for patients with CKD and diabetes due to their benefit on renal outcomes. Dapagliflozin and empagliflozin are now indicated for the treatment of HFrEF. Dapagliflozin is also now indicated for CKD. Guidelines are now making clear recommendations for when to use each class of medication to improve patient outcomes.

Be sure to answer the following questions provided to receive CE credit.

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CONTINUING EDUCATION

Continuing education quiz #011-030-021-001 for 2.0 clock hours. CE Credits are valid through 2022.

UPDATES FOR THE USE OF SGLT2-IS AND GLP1-RAS

INSTRUCTIONS: After reading the continuing education article, quizzes can be taken online at mspharm.org or detach this page. A grade of 70% or better is required to earn 2.0 hour of continuing education credit. This is a free service for MPhA members.

To mail your quiz, include a self-addressed and stamped envelope and mail to:

MPhA, PO Box 16861, Jackson, MS 39236.

Print name, phone number, and email:

NAME _____

PHONE _____

EMAIL _____

- Which of the following patients meets the criteria to initiate Wegovy (semaglutide)?
 - BMI 25 kg/m² with dyslipidemia
 - BMI 21 kg/m²
 - BMI 27 kg/m²
 - BMI 33 kg/m² with type 2 diabetes mellitus
- Which medication contains the Black Box Warning of thyroid c-cell tumor?
 - Dulaglutide
 - Metformin
 - Empagliflozin
 - Glipizide
- All of the following are adverse effects of sodium-glucose cotransporter 2 (SGLT2) inhibitors, except:
 - Weight gain
 - Increased urination
 - Genital fungal infections
 - Amputation risk
- Empagliflozin has an estimated glomerular filtration rate (eGFR) cutoff of:
 - 30 mL/min when used for heart failure
 - 25 mL/min when used for heart failure
 - 30 mL/min when used for glycemic control
 - 45 mL/min when used for glycemic control
- How long should a patient take the initial dose of Rybelsus (oral semaglutide)?
 - Once daily for 7 days
 - Twice daily for 30 days
 - Once daily for 60 days
 - Once daily for 30 days
- Which antidiabetic medication is FDA-approved for heart failure with reduced ejection fraction without or without diabetes?
 - Dapagliflozin
 - Ertugliflozin
 - Exenatide
 - Semaglutide
- Recommend a medication for this T2DM patient based off the following characteristics: past medical history of chronic kidney disease, urine albumin-to-creatinine ratio 35 mg/g.
 - Canagliflozin
 - Glimepiride
 - Linagliptin
 - Oral semaglutide
- Dapagliflozin is FDA-approved to delay the progression of renal failure with or without diabetes based on which landmark clinical trial?
 - DAPA-HF
 - DAPA-CKD
 - DAPA-HFrEF
 - DAPA-HFpEF
- The primary composite outcome of end-stage kidney disease, doubling of serum creatinine levels, or death from renal or cardiovascular causes was used in which clinical trial?
 - EMPA-REG trial
 - DAPA-CKD trial
 - CREDENCE trial
 - EMPA-KIDNEY trial
- According to the State of Childhood Obesity, Mississippi is ranked where on the list of highest rates of diabetes?
 - #1
 - #9
 - #5
 - #3
- Which of the following is not an expected benefit of Glucagon-like peptide-1 receptor agonists (GLP1-RAs)?
 - A1c reduction of 1.5-2%
 - Low risk of hypoglycemia
 - Decreases postprandial blood glucose
 - Weight loss of 0.3-6.5 kg
- The KDIGO guidelines recommends which class of medications for patients with chronic kidney disease and type 2 diabetes mellitus due to their benefits with renal outcomes?
 - DPP-4 inhibitors
 - Biguanides
 - GLP1-RAs
 - Thiazolidinediones
- The following antidiabetic medication is FDA-approved for the indication of chronic kidney disease (CKD):
 - Glimepiride
 - Canagliflozin
 - Sitagliptin
 - Dapagliflozin
- The estimated glomerular filtration rate cutoff for ertugliflozin is:
 - <75 mL/min
 - <70 mL/min
 - <45 mL/min
 - <60 mL/min
- Common adverse effects of GLP1-RAs include:
 - Nausea
 - Weight gain
 - Abdominal pain
 - A and C
- Which of the following GLP1-RAs have been shown to provide cardiovascular benefit?
 - Dulaglutide
 - Exenatide
 - Lixisenatide
 - Oral semaglutide
- In addition to metformin, what medication class should be added as first-line therapy in patients with a history of diabetes and heart failure?
 - DPP4-Is
 - GLP1-RAs
 - SGLT2-Is
 - Sulfonylureas
- In addition to metformin, what medication class should be added as first-line therapy in patients with a history of diabetes and stroke?
 - DPP4-Is
 - GLP1-RAs
 - SGLT2-Is
 - Sulfonylureas

Mississippi
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Mississippi Pharmacists Association Awards

The Mississippi Pharmacists Association is accepting nominations through **Friday, April 1 2022** for the following Annual Awards. Awards will be presented during at the **151st Annual Convention and Trade Show, June 2-5, 2022.**

Bowl of Hygeia

The Bowl of Hygeia Award recognizes pharmacists across the nation who possess outstanding records of civic leadership in their communities and who have made unique contributions to form strong, healthy communities through service and personal leadership. This prestigious award and notable achievement is recognized nationally and sponsored by the American Pharmacists Association and the National Alliance of State Pharmacy Associations, with support from Boehringer Ingelheim. The following criteria should be noted when submitting a nominee for consideration. The recipient of this award:

- Must be a pharmacist, licensed within the jurisdiction in which the award is made.
- Must be living. Awards are not presented posthumously.
- Cannot have previously received the award.
- Has compiled an outstanding record of community service, which, apart from his/her specific identification as a pharmacist, reflects well on the profession.

Hall of Fame Award

The Hall of Fame Award is the most prestigious award presented within MPhA. This award recognizes an exemplary member with a longstanding history of outstanding contributions and commitment to the association. The criteria for this award are:

- The recipient has demonstrated a long-term commitment and service to the association and profession.
- The recipient is not a previous recipient of the award.

Excellence in Innovation Award

The Excellence in Innovation Award sponsored by Upsher-Smith Laboratories, Inc. was introduced as a way to honor a pharmacist who demonstrates innovative and pro-active approaches to enhanced and improved patient care. The criterion for this award is:

- The recipient has demonstrated an innovative pharmacy practice resulting in improved patient care.

J. D. Slater District Achievement Award

This award was created to recognize the MPhA district judged to be the most outstanding as far as service and commitment to the association over the previous year. In honor of J. D. Slater, and sponsored by the association, this award exemplifies professional involvement, outreach, and engagement. The recipient of this award should have the following qualification:

- A district that has demonstrated outstanding service to the profession and association.

Distinguished Young Pharmacist Award

This award, sponsored by Pharmacists Mutual, recognizes a practicing pharmacist with superior achievement, within 10 years of their terminal pharmacy degree. Nominees for this award should be persons who exemplify professional, pharmacy service and have demonstrated the following:

- Outstanding service in pharmacy practice.
- Outstanding service to the community.
- Service in professional organizations.
- Services/interaction with other health care workers.

Pharmacy Technician Award

This award, established in 2003, recognizes pharmacy technicians who exhibit professional characteristics inherent of a model pharmacy technician. The nominee should be a person who has demonstrated professional competency and who is actively working to help establish the role of the technician in pharmacy services. Factors to be considered for this award sponsored by MPhA are:

- Service to his/her organization and or area of patient service.
- Involvement in committees and technician leadership.
- Significant contributions to the promotion of pharmacy.

Student Pharmacy Award

This award recognizes a student pharmacist who has demonstrated proven leadership ability and who represents the very best attributes and accomplishments of pharmacy students. Sponsored by MPhA, this award honors a student of pharmacy who has been actively involved in association activities and helped to promote the advancement of pharmacy. The student must:

- Be a current student member of MPhA.
- Be a leader and involved in association activities to promote the advancement of the profession of pharmacy.

Spirit of Pharmacy Award

This award, sponsored by MPhA, recognizes a service-oriented and hard-working member that has demonstrated an extraordinary commitment to our association and volunteer activities. The recipient of this award must:

- Be a current member of MPhA.
- Have made significant contributions to the association and professional activities.

Member of the Year Award

Sponsored by MPhA, this award is presented to a member who has demonstrated impeccable commitment to the association, dedicated his/her personal time and energy to furthering the objectives of the association, and is active in all aspects of the association. The recipient of this award must have:

- Demonstrated commitment and service to the association, over and beyond expectations per the member's role.
- Served on one or more committees.
- Dedicated personal time to member outreach and recruitment.

Mississippi Pharmacists Association 2022 Awards In Recognition of Excellence

The Mississippi Pharmacists Association is accepting nominations through **Friday, April 1st, 2022**, for the following Annual Awards. Awards will be presented during the **151st Annual Convention and Trade Show, June 2-5, 2022**.

***** Please refer to the [Awards Description](#) to view all award criteria. *****

This nomination form is for the following awards (check one box):

- Bowl of Hygeia Award – *Sponsored by American Pharmacists Association and National Alliance of State Pharmacy Associations, with support from Boehringer Ingelheim*
- Hall of Fame Award
- Excellence in Innovation Award – *Sponsored by Upsher-Smith Laboratories, Inc.*
- J. D. Slater District Achievement Award
- Distinguished Young Pharmacist Award – *Sponsored by Pharmacists Mutual*
- Pharmacy Technician Award
- Student Pharmacy Award
- Spirit of Pharmacy Award
- Member of the Year Award

Section 1 – Nominee Information (please fill out as best possible)

Name: Phone:

Address: City:

State: Zip: Email:

Designation: Pharmacist Pharmacy Technician Pharmacy Student Other

This person is aware that I have nominated him/her (not required): YES NO

I am forwarding or attaching a nomination letter: YES NO

Section 2 – Nominator Information (person submitting nomination)

Name: Phone:

Email:

➔ **Please include a nomination letter and/or additional documentation that supports your nomination.**
Refer to the award descriptions to view criteria for each award.

The nomination form and attachments must be **received** by the MPhA by **Friday, April 1st, at 5:00p.m.**

Mail nomination form and attachments to:

Mississippi Pharmacists Association
Attn: Nominations and Awards Committee
PO Box 16861
Jackson, MS 39236

OR Submit electronically at www.mspharm.org/awardnominations
and email supporting documentation to info@mspharm.org

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Let's Talk About Techs!

By Mindy Phillips

Over the past several months, the Mississippi Pharmacists Association (MPhA) Executive Committee brought to the discussion table: the importance of pharmacy technicians and how we, as an association, can support them. We are currently working with Anna Touchstone, Education Committee Chair, to research ways to provide continuing education credits for certified technicians. We will also be including an article, "Let's Talk About Techs," in each journal supporting techs across the state of Mississippi. Our goal is to put a spotlight on two outstanding pharmacy technicians by having an interview-style article in each Mississippi Pharmacist journal in 2022. These technicians will also be featured on our website and social media sites.

"We at MPhA are excited to begin an outreach program directed at pharmacy technicians. Technicians play such a vital role across all areas of pharmacy from independent pharmacies to hospital pharmacies to chain pharmacies and all areas in between. We want to spotlight the hard work and dedication of our technicians and provide them the resources they need to be successful" -Beau Cox, PharmD, MPhA Executive Director

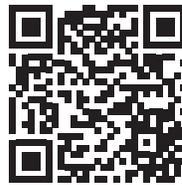
Another way to show our appreciation for technicians, we are offering technicians the first year free! If a technician has never been a member with MPhA, the 2022 membership fees are waived. Wait... it gets better! We lowered our annual fee for technicians as well. The membership fee, beginning after the first year, will be \$25 per year!

"Professional organizations play a vital role in the growth and development of those who work in our field. This includes not only

pharmacists but also the technicians that we work beside. We realize it's important to include our technicians in the opportunities that MPhA offers for training, networking, and career development. I look forward to growing this portion of our membership in the future," Peyton Herrington, MPhA President.

The benefits for joining MPhA go far beyond having a source for continuing education. A membership with MPhA provides a place for community amongst your fellow colleagues, providing you with a lobbyist to be a voice in governmental affairs, and by giving a voice to your profession.

Since the majority of our readers are pharmacists, consider passing this journal along to your staff. Bring up the importance of our organization with your teams. Also, if you would like to nominate technicians from your staff to be included in our new "Let's talk about Techs" article, visit our website, mspharm.org/article-technicians to submit a Google form. As mentioned, only two technicians will be included in each quarterly journal; however, all entries will be posted to our social media sites.





Mississippi Society of Health-System Pharmacists

Become a member of two associations dedicated to your profession in pharmacy.

The Mississippi Pharmacists Association supports all areas of pharmacy, including health-system, academia, chain, independent, technicians and students. MPhA has over 1,000 members. Founded in 1871, Mississippi was the 6th state to form a pharmaceutical association. The association is led by an elected Executive Committee of pharmacists and an Executive Director. MPhA has nine districts throughout the state, ensuring communication and involvement with all members on a community level.

MPhA Membership Benefits:

- Representation as the one voice of pharmacy at the Capitol in Jackson and Washington D.C.
Networking Opportunities
Variety of continuing education programs
Personal and professional member-only partnerships

MSHP is a professional society of pharmacists and related personnel practicing in organized healthcare settings. Founded in 1953, the MSHP society has over 500 members. MSHP is a state affiliate of the American Society of Health-System Pharmacists (ASHP). MSHP has three districts throughout the state to facilitate member involvement on a local level. An elected Board of Directors governs MSHP.

MSHP Membership Benefits:

- Communication with colleagues
Continuing education programs
Consultant pharmacist certificate program
MSHP website (www.msshp.org)
Public relations opportunities
Affiliation with ASHP

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Graduate of: Graduation Year:

Annual Joint Dues Rates:

- Student (free for MPhA) \$9
Pharmacist 225 \$250
Pharmacy Technician 40 \$45
Joint Pharmacist (husband/wife) 320 \$355
Pharmacist - retired and over 65 149 \$165

Other:

- Mississippi Pharm-PAC \$20 / \$50 / \$100

Payment Options:

- Enclosed is my check in the amount of \$ made payable to MPhA

Please mail completed form and payment to:

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