GULF COAST SOCIETY OF HEALTH-SYSTEM PHARMACISTS

Summer Newsletter
August 2021

WELCOME BACK TO A NEW YEAR!

VOLUME 26

ISSUE 01

Volume 26, Issue 1, 2021

PRESIDENT'S LETTER

Jordan Burdine, PharmD, MBA, BCCPP

Greetings GCSHP Members! On behalf of GCSHP, I would like to whole-heartedly thank every single one of our members for the continued dedication and support to this organization and your profession. Our members are resilient, and I am honored to serve as the 2021-2022 GCSHP President!

As a long-time member of TSHP, I have enjoyed my membership within various local chapters, including the Panhandle Plains, Metroplex, and now the Gulf Coast Society of Health-System Pharmacists. As the largest local chapter of TSHP with over 400 members, GCSHP members are a true representation of the cultural and geographical diversity within the health-system pharmacy workforce and the Houston/Gulf Coast area. I am proud to serve on a board that represent the multitude of ethnicities, genders, races, and orientations that comprise our colorful profession and community.

Despite the pandemic, multiple weather catastrophes and other national crises this year, GCSHP has continued to provide opportunities for member engagement. To increase direct membership involvement and organization visibility, GCSHP has initiated monthly meetings for all general membership. Our organization has continued to offer our members meaningful learning opportunities, including law and opioid continuing education sessions provided by Kathy Salinas from the Texas State Board of Pharmacy, to assist our members in meeting their licensure renewal requirements. The board also developed TSHP-approved resident-lead clinical continuing education presentations that are held in conjunction with our monthly meetings, allowing GCSHP to offer our members more CE than ever before! Social connection and networking have never been more challenging than during the pandemic, but our virtual trivia nights allowed us to creatively reconnect COVID-style via Zoom®!

This year, we are excited to gather once again in person starting September 2021! Keep an eye out for local general membership meetings, networking opportunities, and more! To keep connected, you can follow GCSHP on Facebook, Twitter, and Instagram. I would also encourage our members to take full advantage of our affiliation with TSHP, which affords further benefits for members throughout the year. The TSHP Mentorship Program is a great way for pharmacists to mentor students or new practitioners - in the Houston area or across the state - or to find a mentor for yourself! Additionally, the TSHP Journal is actively seeking original research, reviews, best practices, and monographs for publication. Next year, we hope to see everyone face-to-face at TSHP's Annual Seminar, May 13 - 15, 2022, at Kalahari Resort & Convention Center in Round Rock, Texas!

If this year has taught us one thing, it is to be thankful. I am thankful for all of you who have supported your families, institutions, and profession against all odds. I am thankful for those of you who have put yourself on the front lines to make sure our patients have the care, medications, and vaccines they need. And this year, I am thankful for health and love! Thank you all for your continued support of GCSHP. Let's make up for lost time and have a fantastic year!

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TRIBUTE TO SIDNEY PHILLIPS

Earlier this summer, we received tragic news about the loss of a beloved member of the GCSHP and TSHP family, Sidney Phillips, PharmD, MBA. Sid, administrative director of pharmacy at Memorial Hermann TMC and an alumnus of the Texas Tech University Health Sciences Center School of Pharmacy (TTUHSC), passed away on Friday, July 2nd in a tragic accident. He was a wonderful friend, pharmacist, father, husband, colleague, leader, and mentor. Sid previously served as the TSHP President and led numerous initiatives throughout his career with lasting impact on the pharmacy profession and those around him.

Sid is survived by his wife, two children, mother, sister, and countless extended family, friends, and colleagues. Condolence messages may be written for the Phillips family at www.garmanycarden.com. The family has set up a trust fund for Sid's children's future education expenses. Donations can be made one of two ways:

Mail:
c/o Phillips Family Trust
P.O. Box 2153
Houston, TX 77070-9998

Electronic:
Zelle payment to jjphillipstrust@yahoo.com

Additionally, the family has asked that a scholarship fund be established to honor Sid's contributions and legacy in pharmacy practice. We invite you to join us in honoring Sid's contributions by donating through TSHP to the Sidney Phillips Memorial Scholarship Fund.

We extend our deepest sympathies to the Phillips family for this tragic loss.

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2020-2021 YEAR IN REVIEW

We are proud to have continued providing opportunities for member engagement in the virtual world! Thank you to all our volunteers for making this year a success. Don't miss out - become a member today!

AUGUST

Emerging Perspectives in CKD Anemia

SEPTEMBER

Texas State Board of Pharmacy Law Update

OCTOBER

Emerging Therapies for Multiple Myeloma & Virtual Trivia Night

NOVEMBER

Treating Influenza and Improving Outcomes in the Health-System

JANUARY

Role of the Pharmacist in Mental Health Preparedness

MARCH

Pain Management in the ICU

APRIL

Review of Community-Acquired Pneumonia

MAY

Role of Antipsychotics in ICU Delirium

JUNE

Oral Antibiotic Therapy for Treatment of Osteomyelitis

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GCSHP ANNUAL AWARDS

Each year, GCSHP recognizes its members for outstanding work in pharmacy practice. Congratulations to this year's winners!

OUTSTANDING PHARMACIST

Chibuokem Amuneke-Nze, PharmD

The University of Texas MD Anderson Cancer Center

The Outstanding Pharmacist Award recognizes outstanding contributions as a health-system pharmacist, active participation in the growth of GCSHP, and exemplary dedication to improving delivery of quality healthcare.

OUTSTANDING STUDENT

Ariba Abbas

University of Houston College of Pharmacy

The Outstanding Student Award recognizes active participation as a student in GCSHP and interest in health-system pharmacy practice through research and other activities.

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RESIDENCY GRADUATION

CONGRATULATIONS TO ALL OUR HOUSTON-AREA PHARMACY RESIDENCY GRADUATES!

Thank you to all who participated in our virtual GCSHP Residency Graduation in June. We were honored to celebrate your accomplishments and hope to resume our in-person graduation event next summer! *Special thank you to current TSHP President, Sarah Lake-Wallace, PharmD, MS, for serving as our keynote speaker for the event.*

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HCA HOUSTON HEALTHCARE CLEAR LAKE
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TEXAS CHILDREN'S HOSPITAL
UNIVERSITY OF TEXAS MEDICAL BRANCH HEALTH
WALGREENS PHARMACY AND UNIVERSITY OF HOUSTON

UPCOMING EVENTS

GCSHP MONTHLY MEETINGS & RESIDENT GRAND ROUNDS

This year, GCSHP held its inaugural series of monthly membership meetings and resident grand rounds. We are excited to continue this opportunity for the upcoming year! Each month, you can tune in for general membership updates and to get involved with your local organization, followed by an ACPE-accredited continuing education program from a pharmacy resident. Be on the lookout for an invitation for the next one this fall!

If you are a residency program director or a resident with interest in giving an ACPE presentation to the GCSHP chapter, please email our New Practitioner Ambassador, Niaz Deyhim (ndeyhim2@houstonmethodist.org) for additional information.

TSHP EDUCATIONAL PROGRAMS & SPECIALTY SEMINARS

Joining GCSHP includes membership to TSHP and all its exclusive opportunities! Don't miss out on the upcoming programming:

Medication History Certificate Program
Transitions of Care Certificate Program
Hematology/Oncology Specialty Seminar
Ambulatory Care Specialty Seminar

Visit https://tshp.org/page/education for more information!

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TEXAS CONTINUING PHARMACY EDUCATION REQUIREMENTS

According to Texas Board Rules §295.8, continuing education requirements for pharmacist renewal (except for initial renewal) are described below. For more information regarding renewal requirements, initial renewal requirements, and technician requirements, please visit the Texas Board of Pharmacy CE webpage.

A total of 30 hours are required per renewal period, which include the following:

2 hours (1 hour annually)	Must be related to **pain management**. ***Special note***: You must be sure to obtain at least one hour **annually** (as specified in House Bill 3285). For example, a single two-hour course would not meet requirements as outlined by House Bill 3285 or Board rule 295.8. Requirement must be met for all renewals received ***after*** August 31, 2021 and ***before*** September 1, 2023.
2 hours	Must be related to **prescribing and monitoring controlled substances** (as specified in House Bill 2174). A pharmacist should take the controlled substance CE ***no later than September 1, 2021*** and must submit this CE on the new renewal after September 1, 2021.
1 hour	Must be related to **mental health awareness**. Requirement must be met for all renewals received ***after*** August 31, 2021 and ***before*** September 1, 2023.
1 hour	Must be related to **Texas-specific pharmacy laws and/or rules**.
24 hours	Can be **any subject**; can also consist of any **special certification CE requirements**, if applicable (for example, sterile compounding, immunization, preceptorship, etc.; see special CE requirements).

Source: pharmacy.texas.gov/files_pdf/pharmacist_CE_breakdown.pdf

Human Trafficking Prevention Course Requirement:

For renewals received after August 31, 2020 and before September 1, 2022, a pharmacist must have completed the human trafficking prevention course required in §116.002 of the Texas Occupations Code. The Executive Commissioner of the Texas Health and Human Services Commission (HHSC) shall approve training courses on human trafficking prevention, including at least one course that is available without charge. A list of the approved courses will be posted on the commission's internet website. Newly licensed pharmacists are ***not*** exempted from this requirement.

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RESIDENTS' CORNER

Ibrexafungerp (Brexafemme): New 'Fun-guy' on the Block

By: Taryn A. Eubank, PharmD - PGY2 Infectious Diseases Pharmacy Resident at Houston Methodist Hospital
Preceptor: Ty Drake, PharmD, BCIDP

Invasive fungal infections continue to increase in frequency as detection methods improve and the immunocompromised population grows. (1) As there are currently only 5 classes of antifungals on the market, development of new agents and classes is imperative to maintain options with emergence of multidrug resistant and pan-resistant fungi. This article will discuss the recently FDA-approved agent ibrexafungerp and additional antifungals in the pipeline.

Ibrexafungerp, brand name Brexafemme, is the first FDA-approved agent within a new antifungal class in over 20 years. (2) The triterpenoid class antifungal has a mechanism of action of inhibiting the biosynthesis of β-(1,3)-D-glucan which composes approximately 50-60% of the fungal cell wall. (3,4,5) Although similar to echinocandins' mechanism of action, triterpenoid antifungals bind to an alternative binding site on the target enzyme β-(1,3)-D-glucan synthase thus limited cross-resistance is expected. (3) This difference in mechanism of action in turn gave ibrexafungerp it's interesting name. IBREXA is the fantasy prefix + FUNG alludes to –fungin mechanism of action targeting β-(1,3)-D-glucan synthase + ERP for tritERPenoid novel class.

However, what truly makes ibrexafungerp standout against the currently commercially available echinocandins is the oral route of administration. Ibrexafungerp is available as 150 mg tablets. Current FDA-approved indication is for vulvovaginal candidiasis (VVC) in adults and post-menarchal pediatric females dosed at 300 mg every 12 hours for 2 doses. (5) The package insert recommends taking with or without food, however administration with a high-fat meal can increase the concentration max by approximately 30%. (5) Adverse events reported for ibrexafungerp include abdominal pain, diarrhea, and nausea (>10%). As drug-drug interactions are a common issue with antifungal treatment, acknowledging that ibrexafungerp is a major substrate for CYP3A4 and a minor substrate of P-glycoprotein/ABCB1 is important for interaction monitoring. (5) Additional distinguishing characteristics of ibrexafungerp include a favorable safety profile, good tissue penetration, increased activity at low pH, and activity against multi-drug resistant Candida auris and Nakaseomyces (formerly Candida) glabrata. (3-9) Of note, ibrexafungerp is contraindicated in pregnancy based on possible fetal harm from animal studies. (5) Effective contraception should be used during treatment and for four days after final dose.

RESIDENTS' CORNER

Ibrexafungerp (Brexafemme): New 'Fun-guy' on the Block

In vitro studies to assess ibrexafungerp spectrum of activity were completed for Candida spp. and Aspergillus spp. (7,10,11) Sobel and colleagues found ibrexafungerp to have significant in vitro fungicidal activity against all fluconazole-resistant and fluconazole-sensitive Candida spp. (including non-albicans Candida) at both pH of 4.5 and 7.0. This is important for the efficacy and utilization in VVC as the vaginal pH is 4 – 4.5. (7) Ghannoum and colleagues reported that ibrexafungerp demonstrated potent fungistatic activity for Aspergillus fumigatus and non-fumigatus Aspergillus strains. In addition to fungistatic activity, the combination of ibrexafungerp and isavuconazole or voriconazole demonstrated synergistic activity against the majority of azole-susceptible strains. (10) These findings align with Rivero-Menendez and colleagues' findings who reported that ibrexafungerp activity against Aspergillus spp. is comparable to micafungin. (11) The SCYNERGIA trial is currently investigating the combination of ibrexafungerp and voriconazole versus voriconazole monotherapy in invasive pulmonary aspergillosis (NCT03672292).

As antifungal resistance and azole tolerability are problematic, ibrexafungerp has been studied for the treatment of invasive candidiasis following initial echinocandin therapy in non-neutropenic patients. (8) In the multinational, open-label, phase 2 study, patients were randomized to receive step-down therapy with either 750 mg ibrexafungerp, 500 mg ibrexafungerp, or standard of care with fluconazole or micafungin if fluconazole resistant. Population pharmacokinetic analysis found that the 750 mg regimen is predicted to achieve the target exposure in approximately 85% of the population. Of note, all patients received 3 – 10 days of an echinocandin and an oral loading dose of ibrexafungerp was administered in patients randomized to those respective study arms. Response rates were found to be similar in all three arms. (8) The CARES study is an ongoing single-arm, open label study of ibrexafungerp for invasive C. auris infections (NCT03363841).

Several antifungals in the pipeline look to join ibrexafungerp in the battle against increasing invasive fungal infections. (2) Rezafungin, developed by Cidara Therapeutics, is the latest echinocandin with structural modifications enabling once-weekly intravenous dosing. Rezafungin has advanced to phase 3 trials. The ReSTORE trial is an ongoing multicenter, double-blinded, randomized control trial evaluating rezafungin vs caspofungin plus step-down oral fluconazole (NCT03667690). Oteseconazole, developed by Mycovia Pharmaceuticals, is an oral and intravenous tetrazole antifungal. This new generation of azole antifungals utilize higher specificity for fungal CYP51 allowing for less cross-inhibition of mammalian CYP enzymes thus less drug-drug interaction potential. Preclinical studies exhibit the spectrum of activity to include Candida spp., Rhizopus spp., Trichophyton spp., and coccidioidomycosis. (12) Oteseconazole has advanced to phase 2 and phase 3 trials for recurrent VVC and onychomycosis, respectively (NCT03561701, NCT02267382, NCT03562156, NCT02267356).

RESIDENTS' CORNER

Ibrexafungerp (Brexafemme): New 'Fun-guy' on the Block

Antifungal agents currently in phase 2 studies include: fosmanogepix (Amplyx Pharmaceuticals), Olorofim (F2G), encochleated amphotericin B (Matinas Biopharma), and PC945 (Pulmocide). Fosmanogepix and olorofim are oral and intravenous and are novel new antifungal drug classes (NCT04240886, NCT04148287, NCT03583164). (13) Both currently have orphan drug status. Encochleated amphotericin B is a novel polyene formulation that is encased in lipid bilayer. The cochleate stabilizes the formulation and assists delivery into the cells. This allows for lower plasma levels thus mitigating the notorious adverse effects of amphotericin B (NCT04031833, NCT02971007). (14) Lastly, PC945 is the first inhaled triazole developed primarily for the treatment of invasive pulmonary aspergillosis. Phase 2 trials were terminated early due to the COVID-19 pandemic, however, phase 3 studies are anticipated to start recruitment within 2021 (NCT03905447, NCT03745196, NCT03870841). (2)

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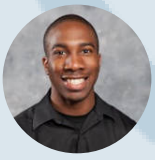

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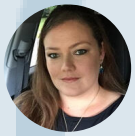

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