



Washington Metropolitan Society of Health System Pharmacists Newsletter

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MS Medical Cannabis Science and Therapeutics Program

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In August 2019, the University of Maryland School of Pharmacy launched the Master of Science in Medical Cannabis Science and Therapeutics program – the first master’s program in the country to provide comprehensive education related to the clinical and pharmaceutical science of the cannabis plant. Our inaugural cohort consisted of 150 trailblazing students with a desire to transform the medical cannabis field. In August 2020, we welcomed an additional 250 students to our program.

This program was conceived as a way to respond to an evolving and expanding medical cannabis industry. We recognized a need for this industry to have an educated workforce. At the same time, several articles published in recent years - primarily surveys of health professionals – illustrated that a knowledge gap existed related to medical cannabis. We believed we could address this gap through formal education.

See page 2 Cannabis

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Message from the WMSHP President

"You will never know how strong you are until being strong is the only choice you have." - Bob Marley

Hope you all are keeping safe and warm during the COVID-19 pandemic and icy or snowy polar vortex season. Hang in there, we are almost close to the arrival of the spring equinox on March 20, 2021, with warmer and sunny days as well as positive signs of the beginning of the pandemic’s end with the COVID-19 vaccine availability for all. With the arrival of spring, we can smell the scent of rain, a scent of hope and, there will be social life with the joy of normalcy again.

Keeping all these in mind, we continue to offer informative and interesting CE programs in virtual and safe platforms. We had an overwhelming registration for the January 2021 CE program on the LGBTQ+ topic that attests to the popularity and support of WMSHP CE programs to our professional colleagues. See page 8 – President message



Leah Sera, PharmD, MA, BCPS, Program Director of the MS in Medical Cannabis Science and Therapeutics, University of Maryland School of Pharmacy

Cannabis from page 1

The program was approved by the University System of Maryland in May 2019 and the Maryland Higher Education Commission in June 2019. An important goal of our MS program is to bring together a diverse student body, because we know that individuals with many different academic and professional backgrounds have important roles in the medical cannabis industry. The only academic requirement for enrollment is a bachelor's degree (or higher) from a regionally accredited institution, and we do not require incoming students to have a particular field of study or take prerequisite coursework. Our courses include some foundational concepts in pharmacology, medicinal chemistry, and clinical science to bring students up to speed (or serve as a review for those who have already learned these concepts). About half of our students are clinicians and scientists, and the rest have backgrounds in law, business, public health, advocacy, education, and other fields. Our first cohort will graduate in May 2021.

Students in the program take a total of 30 credits of coursework over two years. In the first year, students take foundational courses in cannabinoid pharmacology and chemistry, evidence-based medicine, and cannabis therapeutics. Students can choose three elective courses (9 credits) in their second year focusing on cannabis therapeutics; chemistry and analytical testing; cannabis genomics; and cannabis laws and policies. We expect that graduates of this program will be able to support patients and the medical cannabis industry with expertise regarding the science and clinical effects of the cannabis plant, add to existing scientific and clinical research on cannabis and contribute to the development of well-informed medical cannabis policy, and have an increased potential for securing a position in the medical cannabis industry.

Our MS program is primarily online and asynchronous, meaning students don't have to log on to class at a specific time each week, and most of our students are working professionals. However, we require students to come to campus in Rockville, MD once per semester for a day-long symposium (of course, these events have been held virtually during the pandemic). During these symposiums, students work together on group projects, participate in networking sessions with industry professionals, and attend seminars by experts already working in the medical cannabis field.

If you are interested in more information about our program, please visit our website:

<https://www.pharmacy.umaryland.edu/academics/ms-medical-cannabis-science-and-therapeutics/>. We are currently accepting applications for Fall 2022 and the deadline for submission is April 1, 2021. In addition to academic transcripts, applicants must submit a personal statement that clearly describes academic and professional goals as they relate to the medical cannabis field, three letters of recommendation that speak to your ability to be successful in our academic program and interest in the medical cannabis field, and a curriculum vitae or resume. Please contact msmcst@rx.umaryland.edu with questions about our program requirements and application process.



Danielle Kalinousky, PharmD
Candidate Class of 2022,
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Rural Health Opportunities for Pharmacists Author: Danielle Kalinousky

In the United States, the usage and cost of medications has increased rapidly over the past decade, which has made it more difficult for Americans to access and pay for their necessary medications.¹ One demographic that has especially been affected by these changes are residents of rural communities, who experience significant disparities in health care in comparison to their suburban and urban neighbors.

The major driving factor in these disparities is the geographical isolation of rural communities, which can require residents to travel long distances for the most basic pharmacy and primary care services. Residents of rural communities generally are of a lower socioeconomic status, are less likely to have employer-sponsored health insurance, are more likely to utilize Medicaid, and also have less post-secondary education and lower median household incomes than those who live in urban areas. Additionally, increased rates of health risk behaviors and chronic illness have been observed in rural communities, with higher death rates due to heart disease, stroke, respiratory disease, and cancer, and all-cause mortality is increased by 14%.² Rural communities also generally have a much higher population of older residents who often have multiple chronic illnesses and medications to manage.¹

In rural communities, where primary care physicians are often scarce, pharmacists play an important role in providing health care services. In addition to ensuring that patients receive their medications in a timely manner, pharmacists educate patients about how to manage their illnesses both pharmacologically and non-pharmacologically. They can also be utilized to provide primary care services and health screenings for patients in rural communities, and with the increased development and utilization of telehealth services throughout the COVID-19 pandemic, opportunities for health systems in rural communities to increase patient access to virtual health care services, including those provided by pharmacists, is easier than ever. Ultimately, utilizing pharmacists' full scope of practice is extremely important and can help to bridge the gap in access to health care in rural communities.

However, the need for pharmacists in rural communities is especially high - about 20% of Americans live in a rural areas but only 12% of pharmacists practice in those areas.³ Many pharmacists, as well as other health care providers, and especially those who are younger and newer to their professions, prefer to settle down and practice in more urban areas, leaving rural communities continually in need of high-quality health care providers. Because of this, training programs that target students and new practitioners are extremely important to help motivate new graduates to practice in rural communities and to help increase access to health care in these areas.

One national organization, the Area Health Education Centers (AHEC) program, focuses on training and placing health care profession students into rural and underserved communities and has established state-level AHEC programs to provide opportunities for students from across their respective states to work together as an interdisciplinary team. Maryland AHEC sponsors the Geriatric Assessment Interdisciplinary Team (GAIT), which brings together health care profession students for day-long training sessions in underserved communities within the state. GAIT events take place within the three regions of Maryland AHEC, including Western Maryland, Central Maryland, and Eastern Shore, and are free for all participants.

AHEC also offers state-level AHEC Scholars programs, which are competitive, two-year longitudinal, interdisciplinary programs that are designed to help train health profession students to practice in rural and underserved communities. Students selected into the AHEC Scholars program are required to complete 40 hours each of didactic and hands-on clinical training per year, with a focus on interdisciplinary education, behavioral health integration, social determinants of health, cultural competency, practice transformation, and current and emerging health issues such as substance use disorders.

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Rural Health from page 3

There are also pharmacy PGY-1 residency training programs that offer a special focus in rural health. The Indian Health Service offers residencies in tribal communities nationwide, providing opportunities for pharmacy residents to work with an especially needy rural population. Residency programs at the US Department of Veterans Affairs Health Care Systems in Reno, Nevada and Minneapolis, MN offer PGY-1 residencies focused specifically on rural health, where residents train and provide health care services at rural clinics that have an increased need for qualified health care providers. There are also many residency programs that are affiliated with universities in primarily rural states that either offer rural health rotations or integrate rural health into their residency curriculum.

While the Washington, DC metro area may not be considered rural, the surrounding regions of Maryland, Virginia, and West Virginia comprise of a large population of rural residents. In Maryland, 18 out of its 24 counties are classified as rural, yet there is only one designated rural health clinic to serve the 150,952 people living in those areas.^{4,5} In Virginia and West Virginia, which are comprised of larger areas of rural land, there are 54 rural health clinics to serve 1,034,447 rural residents and 57 rural health clinics to serve 682,651 rural residents, respectively.^{6,7}

No matter what region of the nation, it is imperative that changes be made in order to address the health care disparities that residents of rural communities face every day. One way that students, especially pharmacy students, can help facilitate those changes is by participating in training programs that focus on rural and underserved communities. For more information about the various aforementioned AHEC programs, please see the following listing of websites:

National AHEC – <https://www.nationalahec.org/>

Maryland AHEC – <https://www.medschool.umaryland.edu/mahec/>

Western Maryland AHEC – <https://ahecwest.org/>

Central Maryland AHEC – <https://centralmarylandahec.org/>

Eastern Shore AHEC – <https://www.esahec.org/>

Maryland AHEC Scholars – <https://www.medschool.umaryland.edu/mahec/About-MAHEC/Signature-Programs/>

Washington, DC AHEC – <https://familymedicine.georgetown.edu/ahec/>

Washington, DC AHEC Scholars – <https://familymedicine.georgetown.edu/ahec/scholars/>

Virginia AHEC – <https://www.vhwda.org/initiatives/ahec>

Virginia AHEC Scholars – <https://www.vhwda.org/initiatives/ahec-scholars>

West Virginia AHEC – <https://www.hsc.wvu.edu/west-virginia-area-health-education-center/>

West Virginia AHEC Scholars – <https://www.hsc.wvu.edu/icrh/financial-incentives/west-virginia-ahec-rural-community-health-scholars-program/>

References:

1. Gilbert S. The Role of the Rural Pharmacist. iMedicare. Published August 24, 2016. Accessed February 15, 2021. Available at: <https://imedicare.com/articles/the-role-of-the-rural-pharmacist/>
2. Rural Health Information Hub. Rural Health Disparities. RHI Hub. Published April 22, 2019. Accessed January 17, 2021. Available at: <https://www.ruralhealthinfo.org/topics/rural-health-disparities>
3. National Center for Health Workforce Analysis. Distribution of U.S. Health Care Providers Residing in Rural and Urban Areas. U.S. Department of Health and Human Services Health Resources and Services Administration. Published 2014. Accessed February 7, 2021. Available at: <https://www.ruralhealthinfo.org/assets/1275-5131/rural-urban-workforce-distribution-nchwa-2014.pdf>
4. Maryland State Office of Rural Health. Rural Health Overview. Maryland Department of Health. Published September 23, 2020. Accessed February 7, 2021. Available at: <https://pophealth.health.maryland.gov/Pages/Rural-health.aspx#:~:text=Overview,Washington%2C%20Wicomico%2C%20and%20Worcester>
5. Maryland Office of Rural Health. Maryland State Guide. Rural Health Information Hub. Published December 31, 2020. Accessed January 9, 2021. Available at: <https://www.ruralhealthinfo.org/states/maryland>
6. Virginia State Office of Rural Health. Virginia State Guide. Rural Health Information Hub. Published April 3, 2019. Accessed January 9, 2021. Available at: <https://www.ruralhealthinfo.org/states/virginia>
7. West Virginia State Office of Rural Health. West Virginia State Guide. Published January 11, 2021. Accessed February 7, 2021. Available at: <https://www.ruralhealthinfo.org/states/west-virginia>



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American Heart Month: 2021 Heart Failure Guideline Update

Author: Amirah Assabahi, PharmD

In light of American Heart Month and the newly updated heart failure guidelines, this article will provide some insight on the key highlights of the 2021 Update to the 2017 ACC Expert Consensus Decision Pathway (ECDP) for Optimization of Heart Failure Treatment. The purpose of this update is to supplement the 2017 ECDP with data from emerging studies and to continue to provide concise, practical guidance for managing patients with heart failure with reduced ejection fraction (HFrEF).

The American College of Cardiology (ACC) has published an update to provide a practical, streamlined resource for clinicians managing patients with HFrEF. The 2017 update, based on 2013 guidelines, provided guidance on evidence-based therapies, improving adherence, overcoming treatment barriers, etc. The document provided practical tables and figures to make clear the steps and tools needed to successfully and expeditiously treat the patient with HFrEF.

Listed here are highlighted examples of useful tools for review:

- “Figure 2: Treatment Algorithm for Guideline-Directed Medical Therapy (GDMT) Including Novel Therapies”
 - Clearly and concisely outlines the treatment agents to be used for Stage C patients
 - Updated algorithm includes previously recommended drug agents such as beta blockers and angiotensin-converting-enzymes inhibitors (ACEI), as well as novel agents such as sodium glucose cotransporter 2 (SGLT-2) inhibitors and ivabradine
 - Recommendations for starting GDMT in a patient with a new diagnosis of symptomatic HFrEF
- “Figure 3: Guideline-Directed Medical Therapy Including Novel Therapies in the Expert Consensus Decision Pathway for Chronic Heart Failure”
 - Comprehensive algorithm for therapies in chronic heart failure: angiotensin receptor-neprilysin inhibitor (ARNI); angiotensin-converting-enzyme inhibitor (ACEI)/angiotensin receptor blocker (ARB); evidence-based beta-blocker; diuretics; aldosterone antagonist; sodium glucose cotransporter 2 (SGLT-2) inhibitor; hydralazine + isosorbide dinitrate; ivabradine
- “Table 1: Starting and Target Doses of Select GDMT and Novel Therapies for HF”
 - Outlines the starting and target doses of each agent to be used for heart failure indications
- “Table 2: Indications for ARNI, Ivabradine, and SGLT2 Inhibitors Use”
 - Simplifies the indications for use of these novel agents
- “Table 10: Ten Considerations to Improve Adherence”
 - Highlights the important role of pharmacists in optimizing adherence
- “Table 11: Specific Patient Cohorts in HF Care”
 - Summarizes the evidence-based recommendations, potential risks, and uncertainties of HFrEF therapies in the least-studied populations such as African Americans, older adults, and frail patients.

For the full article please visit:

https://www.jacc.org/doi/10.1016/j.jacc.2020.11.022?_ga=2.37549928.937126406.1614352635-1866629632.1610811321.&

Since the 2017 ECDP, new therapies have emerged that expand the available treatment options for patients with HFrEF. In particular, the emergence of angiotensin receptor-neprilysin inhibitors (ARNIs), sodium-glucose cotransporter-2 (SGLT2) inhibitors, and percutaneous therapy for mitral regurgitation (MR) represent significant advances in the treatment of HFrEF. The 2021 update incorporates these advances into recommendations. This serves as interim guidance to clinicians as the ACC updates the comprehensive and definitive guideline

The update highlights the important role of pharmacists as part of collaborative practice to optimize adherence. This has been demonstrated and supported by a systematic literature review and meta-analysis, specifically as the most effective interventions were delivered face-to-face by pharmacists and administered directly to patients.

The key points from the 2021 Update:

1. Newly diagnosed Stage C HFrEF, should be started on a beta-blocker (BB) and an angiotensin antagonist (AA) i.e., angiotensin-converting enzyme inhibitor (ACEI)/angiotensin receptor blocker (ARB)/angiotensin receptor-neprilysin inhibitor (ARNI), in any order. Each agent should be up-titrated to maximally tolerated or target dose. Initiation of a BB is better tolerated when patients are dry and an ACEI/ARB/ARNI when patients are wet.
2. Only guideline-recommended BB (i.e., carvedilol, metoprolol succinate, or bisoprolol) should be used in HFrEF patients. Among AA, ARNIs are preferred agents. Renal function and potassium should be checked within 1-2 weeks of initiation or dose up-titration of AA.
3. Diuretics should be added as needed and titrated to achieve decongestion. If doses exceed furosemide 80 mg twice daily are needed, consider a different loop diuretic, or add a thiazide.
4. After initiation of BB and AA, addition of an aldosterone antagonist should be considered with close electrolytes monitoring. Sodium-glucose cotransporter-2 (SGLT-2) inhibitors should be considered with New York Heart Association (NYHA) class II-IV patients.
5. For persistently symptomatic Black patients despite above therapies, hydralazine, and isosorbide dinitrate should be considered. In addition, if resting HR is ≥ 70 bpm in sinus rhythm despite maximally tolerated BB, consider adding ivabradine.
6. Therapy optimization: ideal time is considered during hospitalization or as an outpatient, every 2 weeks to achieve guideline-directed medical therapy (GDMT) within 3-6 months of initial diagnosis. An echocardiogram should be repeated 3-6 months after achieving target doses of therapy for consideration of an implantable cardioverter-defibrillator (ICD)/cardiac resynchronization therapy (CRT).
7. Surgical treatment is recommended for severe primary chronic mitral regurgitation. For severe chronic functional mitral regurgitation, optimization of GDMT is recommended prior to consideration of percutaneous transcatheter repair in symptomatic patients only.
8. Hyperkalemia and/or abnormal renal function are common barriers to achieving target medication doses. Patients with hyperkalemia should be educated about a low potassium diet. Potassium binders may be considered.
9. Socioeconomic barriers pose a major barrier to use of ARNI, SGLT-2 inhibitors, and ivabradine. In these cases, financially feasible options should be considered. This may include virtual care and visiting home nursing services particularly during the COVID-19 pandemic.
10. For patients with recovery of left ventricular ejection fraction (LVEF) to $>40\%$, GDMT should be resumed in the absence of a defined, reversible cause.
11. Repeat echocardiograms to be considered in change in clinical status or other high-risk features. Measuring B-type natriuretic peptide (BNP) or N-terminal-proBNP (NTproBNP) is useful for risk assessment and decision-making regarding referral to a HF specialist or assessing need for other imaging studies. BNP levels may rise with use of ARNI therapy, but NT-proBNP levels are not impacted.
12. Right heart catheterizations to be considered when symptoms persist despite adequate diuretic dose, worsening renal function with attempts to use higher dose therapies including diuretics or repeated hospitalizations. In highly selected patients with recurrent congestion, an implantable sensor to guide filling pressure assessment (e.g., CardioMEMS) in ambulatory HF patients may be considered.
13. Referral to HF specialist in patients needing inotropes, NYHA class IIIB/IV symptoms or persistently elevated natriuretic peptides, end-organ dysfunction, EF $\leq 35\%$, ICD shocks, recurrent hospitalizations, congestion despite escalating diuretics, low blood pressure and/or high heart rate, and progressive intolerance to GDMT needing down-titration.
14. Delivering care for HF requires a team-based approach. Infrastructure such as provision of patient monitoring devices (e.g., Scales) or smartphones or electronic health records can support such team-based care.
15. Medication adherence should be assessed regularly. Interventions facilitating with adherence include patient education, medication management, pharmacist comanagement, cognitive behavioral therapies, medication taking reminders, and incentives to improve adherence.
16. Goals of care should be addressed during the course of illness with HF and expectations should be calibrated to guide timely decisions. When feasible, decision support tools should be used. End-of-life care in HF involves meticulous management of HF therapies, and palliative care consultation may help with other noncardiac symptoms such as pain.

Reference

Maddox, Thomas M., et al. "2021 Update to the 2017 ACC Expert Consensus Decision Pathway for Optimization of Heart Failure Treatment: Answers to 10 Pivotal Issues About Heart Failure with Reduced Ejection Fraction: A Report of the American College of Cardiology Solution Set Oversight Committee." Journal of the American College of Cardiology.

The full article outlining the new updated 2021 guidelines for Optimization of Heart Failure Treatment have been copied below. This is reproduced with permission



update_2021.pdf



WMSHP Delegate Michelle Eby, Past WMSHP Presidents Vaiyapuri Subramaniam, Sadhna Khatri and WMSHP Treasurer Opeoluwa Fagbemi enjoy the 2019 WMSHP picnic.

Presidents message from page 1

We have a good number of educational programs lined up in February and March 2021 as follows. On February 18th at 6:00 pm EST, we had a non-CE vendor exhibit display presentation on “KCENTRA® (Prothrombin Complex Concentrate (Human)) for Intravenous Use, Lyophilized Powder for Reconstitution” by Yildiz Suleiman-Voyles, Sales Representative, CSL Behring Biotherapies for Life. This was followed by a CE presentation on “Assessment of Renal Function in Transgender Patients with HIV” (1.0 contact hour of CE) by Dhakrit (Jesse) Rungkitwattanukul, PharmD, BCPS, Clinical Assistant Professor; Howard University College of Pharmacy.

On March 25th at 6:00 pm EST, WMSHP and Pharmacy Times CE (PTCE) will provide a collaborative program on “Opportunities to Optimize Care in Pulmonary Arterial Hypertension and Optimizing Safety (1.0 contact hour of CE) by Kristen T. Pogue, PharmD, BCCP, from the University of Michigan. On behalf of WMSHP, I would like to thank Ms. Ann Marciano from Pharmacy Times CE in joining hands with WMSHP to support CE programs for pharmacy professionals in the DC Metropolitan region. Pharmacy Times CE has also been generous to support our local community through “Donate Your Dinner” contribution for each participant of CE program on behalf of WMSHP. PTCE made an \$1,175 donation to the Capitol Area Food Bank on behalf of WMSHP for our last joint session. This was their first “Donate Your Dinner” initiative through our collaboration. We thank Ms. Yildiz Suleiman-Voyles, Area Sales Manager from CSL Behring “Biotherapies for Life” for supporting WMSHP. We also would like to thank our newsletter contributor, Dr. Ferdaus Hassan, PhD, Medical Science Liaison (DC/MD/VA), Sanofi Pasteur. You might have noticed that WMSHP newsletter has easy and economical advertising opportunities for local businesses. You can find advertisement information in the last page of this newsletter. Please spread the word to your business friends and families so that we can do our part to help our community in whatever way we can.

A reminder for pharmacists licensed in Washington DC that the deadline to renew your pharmacist license is February 28, 2021 (for odd year cycle). You can renew your license at <https://doh.force.com/dchealthrenewals/s/portal-page>. You are required to complete a minimum of forty (40) contact hours of continuing education (CE) from ACPE-approved programs during the period from 3/1/2019 through 2/28/2021 as specified by DC Municipal Regulations 17 DCMR Chapter 65. Continuing Education credits must include the following: At least two (2) hours are required in Human Immunodeficiency Virus (HIV); at least two (2) hours in medication/dispensing errors; and, at least two (2) hours in cultural competency or specialized clinical training focusing on patients or clients who identify as lesbian, gay, bisexual, transgender, gender non-conforming, queer, or question their sexual orientation or gender identity and expression (“LGBTQ”). Please note that the minimum of ten (10) live continuing education hours are waived for the 3/1/2019 through 2/28/2021 licensure period. (This waiver does not reduce the minimum of contact hours you are required to complete to thirty (30) contact hours. You are still required to complete a minimum of forty (40) contact hours for the renewal cycle).

I hope to see most of you in our next virtual CE program on March 25th. We will be sending out a formal announcement with all the details in the next few days. Don’t forget to renew your annual membership to get the most value for your money. Please refer to the WMSHP website for information (www.wmshp.org)

Sincerely,

Ashok Ramalingam. RPh, MS, PhD, PharmD, CPPS.
President, Washington Metropolitan Society of Health-System Pharmacists.

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Advertisements must be emailed to webwmsph@gmail.com by the 15th of the month to be included in the next newsletter. Both print images are acceptable.