Welcome to the Summer edition of our quarterly research update from the Department of Family and Community Medicine. If an entry touches on a common interest, please reach out to discuss potential collaborations.

- Chris White, MD, JD, MHA
Director of DFCM Research Division

Ohio and Medical Marijuana: Are Providers Ready?

As legalization across the country continues, questions arise as to how prepared medical providers are and how they feel about its potential efficacy, safety and overall adoption into care. Currently, there is no uniform curriculum across medical and pharmacy training programs surrounding medical marijuana. At the University of Cincinnati, medical and pharmacy students receive little to no formal training on the therapy. Upon implementation of medical marijuana programs, physicians and pharmacists play prominent roles in the recommendation, counseling, and monitoring of the drug. With increasing acceptance, providers should have adequate knowledge of the substance to effectively treat patients that may benefit from it. Chris White, MD and Patricia Wigle, PharmD, in partnering with colleagues at the University of Colorado sought to gauge the current knowledge and attitudes of medical and pharmacy professionals towards medical marijuana and observe how they may differ between professions and among providers in pre- and post-legalization states.

A survey assessing provider knowledge and attitudes was administered from 2017 through 2018 to pharmacy faculty, pharmacy students, family medicine faculty and residents at the University of Cincinnati and University of Colorado. Over 650 faculty and trainees responded, with 10% of the sample consisting of our family medicine physicians, and 85% comprising of pharmacy students. ROSE student Adam Butler spent the summer analyzing the more than 650 surveys and presented some initial findings at the University of Cincinnati SURF Research Symposium.

Results showed learners and providers in Colorado were more knowledgeable about legislatively approved conditions for treatment and were more likely to agree with legalization when compared with providers in Ohio. When comparing knowledge and attitudes, pharmacy faculty and trainees reported being more competent in their knowledge of medical cannabis, were more likely to recommend use, and perceived themselves as being more prepared to provide medication counseling than physicians. Overall, knowledge was relatively low among all providers, while most professionals also felt uncomfortable and ill-prepared to work with the drug. However, most medical and pharmacy professionals, regardless of their respective states, were proponents of legalization and its recommendation to eligible patients.

Despite their apparent support, providers do not feel knowledgeable, prepared, or comfortable yet. Moving forward, it may be beneficial to explore implementation of unique curricula or training interventions into medical and pharmacy training programs to increase knowledge amongst learners. It should also be interesting to look into interprofessional curricula among the two programs to promote academic collaboration among professionals that may be working closely in medical marijuana programs. Finally, reasons should be explored for provider uneasiness working with the drug and what can be done to increase comfort levels.
Statewide Cardiovascular Initiative Prepares for Implementation in Second Year

The Ohio Cardiovascular Health Collaborative (OCHC) held their inaugural statewide conference in Columbus, OH on June 8th. The OCHC is led by Case Western Reserve University with institutional partners including Wright State University, Ohio State University, Ohio University, and University of Cincinnati. Michael Holliday, MD is the PI for the UC team, which includes Research Division team members Chris White, MD, Soni Regan, PhD, Sarah Brubaker, Mary Beth Vonder Meulen, RN, Harini Pallerla, MS, and Daniel Hargraves, MSW.

The conference invited providers from around the state to share in the developments and planning for the project’s second year. The keynote speaker featured Lawrence Appel, MD, who is part of the origin team for the DASH diet, a strategy for preventing and controlling hypertension.

This second implementation year will include rollout of a web resource for CVD guidelines filtered through the lens of providers in all areas in Ohio, particularly for those who serve vulnerable populations. This will also include utilization of Project ECHO to provide real time recommendations for patient care and disseminate best practices. The project hopes to create a replicable model for future statewide collaboratives.

Keesha Goodnow Shares Emerging Best Practices in PFACs

Anna Goroncy, MD and Research Division team member Keesha Goodnow presented at the 8th International Conference on Patient- and Family-Centered Care, June 11-13, 2018, in Baltimore, MD. Their oral presentation entitled, "Meaningful Partnerships: Utilizing Patient and Family Advisory Council Led Quality Improvement to Address the Unique Needs of Vulnerable Populations" was well attended and highlighted the importance of patient voice. HRSA PCTE PI Jeff Schlaudecker, MD, MEd and Megan Rich, MD also collaborated on the project.

Protect your skin this summer!

Exposure to ultraviolet (UV) radiation can cause skin damage and lead to skin cancer. It doesn’t matter if you are light skinned, dark skinned or somewhere in between – being in the sun can damage the skin.

Keep in mind that the sun’s rays:
* are strongest between 10:00 am and 4:00 pm
* can go through clothing, windshields and windows
* are reflected by water, sand and pavement

Tips to protect your skin from sunlight:
* use sunscreen products with a SPF of at least 15 and remember to reapply it every two hours
* wear sunglasses that block UV radiation
* wear a hat with a wide brim
* don’t forget to protect your ears, a common site of skin cancers

This information originally published by the National Cancer Institute.

Charles Doarn, MBA Garners International Recognition

The International Academy of Astronautics recently recognized the 4th edition of Space Physiology and Medicine: From Evidence to Practice with its 2018 book award in the category of Life Sciences. This recognition is a testament to the outstanding text used in training aerospace medicine physicians. Doarn was part of the editing team for the book, who also included Arnauld Nicogossian, Richard Williams, Carolyn Huntoon, JD Polk and Victor Schneider. The book’s foreword was written by Senator and astronaut John Glenn.
NIDA Funded EMPOWER Study Currently Recruiting

Researchers from the UC DFCM Research Division are actively recruiting patients from the 16 UC Health Primary Care Practices. This multi-site trial, funded by the National Institute on Drug Abuse (NIDA) is recruiting primary care patients who live with chronic pain to evaluate the effectiveness of a web-based Chronic Pain Management Program. UC Psychiatry’s Theresa Winhusen, PhD is the Principal Investigator with co-investigators Chris White, MD and Soni Regan, PhD from the UC DFCM.

For more information, contact Sarah Brubaker, Research Division Program Coordinator. Email: fmresrch@ucmail.uc.edu

Neuropathy Trial Passes Midpoint

The Research Division has a long history of working with industry partners to successfully complete clinical trials. Continuing this tradition, Family Medicine Investigators Chris White, MD and Soni Regan, PhD are happy to report that patient recruitment for the Neuropathy Rubbing Oil Trial has already passed the halfway mark. The first patient joined the study in April 2018 and they anticipate that all patients will complete the study by mid-autumn. The study is examining the safety and efficacy of a topical rubbing oil, which is currently available to purchase over-the-counter when used for lower extremity neuropathic pain. Midpoint analysis is currently in progress by Research Division team members Harini Pallerla, MS and Tony Leonard, PhD.

For more information, please contact the study nurse, Mary Beth Vonder Meulen RN, at: vondermb@ucmail.uc.edu


As the opioid crisis explodes in the United States with a significant burden in Cincinnati as well, I encountered a disturbing and interesting case of IV drug use during my global health month in rural Guatemala. While I knew alcoholism and marijuana use were relatively common in Guatemala, particularly in men, this was my first encounter with narcotic addiction. Even though I have worked in the country in multiple short-term roles over the past 8 years, I realized I did not know anything about the burden of opioid use in Guatemala.

The patient was a 56 year old male with a past medical history of polysubstance use disorder, including alcohol and opioids. He presented to the clinic in the rural, indigenous (Mayan) community of San Andres Itzapa stating that he had draining lumps on both shoulders which had been present for “months” and that he came in because they were extremely painful and he felt like he needed an “injection for pain” within the lumps. Further history revealed that he is able to purchase morphine and meperidine as well as needles for injecting these medications over the counter at the pharmacies in Guatemala. He uses a single needle for months. He deals with chronic pain all over his body and injects opioids basically wherever he feels pain—his arms, legs, knees, back and sometimes directly into his spine. He considers himself sober because he no longer drinks alcohol. He felt otherwise well and was without systemic symptoms such as fever or chills. Typical of many rural Guatemalans, going to the hospital was not an option due to lack of resources, so care through our clinic was his only option.

Physical exam revealed normal vital signs. He was a cachectic, disheveled man who appeared much older than his stated age. He appeared sedate, as if under the influence of something, though he denied any substance use that day. He pulled up his sleeves to reveal dirty pus-covered rags tied around both shoulders. Underneath the rags, both shoulders revealed fluctuant, erythematous nodules consistent with abscesses overlying the deltoid area. The underlying abscesses were approximately 4 inches in diameter on each side. The left side was draining a small amount of purulent fluid.

Given the inability to go to the hospital, our care team decided the best course of action was to drain and pack the abscesses, start oral clindamycin, and have close follow up (if he would return). The abscesses easily drained large amounts of foul-smelling, purulent material. We also asked him to go to the Centro de Salud (local, government-run health clinics which are poorly supplied and staffed) for lab testing and to receive a tetanus vaccine since those are too expensive to stock at the clinic, which he agreed to. He was counseled extensively regarding the dangers of using dirty needles.

After this disturbing experience, I realized I knew little about the burden of drug addiction in Guatemala. As it turns out, there really is not a large fund of data on this topic and the few studies that exist are on young adults in Guatemala City. Per the US Department of State, youths in Guatemala have high rates of drug use, including 7.5% for marijuana, 4.42% for cocaine, 9.49% for inhalants, 2.5% “crack” cocaine, and 2.4% with ecstasy and other synthetic drugs. The rate of IV drug use (IVDU) is essentially unknown though it is suspected to be low overall (A 2004 study estimated the prevalence of IVDU in Guatemala City in people age 15–64 to be 0.11%, while a 2011 study was inconclusive)1-3. Looking more broadly, according to the World Health Organization, there is no national epidemiological data regarding the rates of drug and alcohol abuse in Guatemala4. More surprising, drug courts in the country do not exist nor does any legislation regarding treatment and rehabilitation for those suffering from substance use disorders.

Additionally, I thought there would be more information regarding alcohol abuse in Guatemala, since it is generally accepted as common and rehabilitation-focused services through Alcoholics Anonymous exist. No data, however, is available on the overall prevalence of alcohol abuse in Guatemala. One interesting study looked at the relationship between alcohol abuse and the witnessing of violent events during the Civil War which ended in 1996. Through interviews with indigenous Guatemalans whose median age was 34.5 years of age it found that 50% screened positive for PTSD and 23.3% screened positive for alcohol abuse5. Not surprisingly, there is a significant association between witnessing violence during the war and suffering from alcohol abuse. As the patient discussed in this case is an indigenous Guatemalan who lived through the Civil War, it would be interesting to know if he had witnessed or personally suffered any trauma himself during that time.

In summary, there is a surprising paucity of knowledge and research about substance abuse in Guatemala. This is likely due in part to lack of funding and infrastructure for research, as well as the fact that 48% of Guatemalans live in rural areas without adequate access to quality medical care (there is 1 physician for every 1,075 people), including rehabilitation resources6. Studies to quantify and describe substance use disorders in Guatemala are needed. As it stands currently, we just have to do our best, helping one addicted patient at a time in Guatemala.

References
Congratulations to all residents who presented their projects at the first annual Family Medicine Research Symposium at The Christ Hospital Grand Rounds on June 12, 2018. Elizabeth Beckman, MD, Darshana Bhattacharyya, MD, Michael Putnam, MD, Allison Ng, MD, Shana Stryker, MD, and Julia Bedard-Thomas, MD all presented their projects during the first oral presentation segment of the morning event. Melissa Mefford, MD, Aurora Rivendale, MD, Brian Bouchard, MD, Sarah Hollis, MD, Christian Gausvik, MD, Catherine Pinkston, DO, Rachel Kishton, MD, and Corey Keeton, MD authored and developed a poster presentation of their projects for the second portion of the event. Projects were also supported by Lisbeth Lazaron, MD, Susan Davis, DO, Megan Rich, MD, and Research Division team members Chris White, MD, Keesha Goodnow, BAE, and Soni Regan, PhD.

Special thanks to Megan Rich, MD for organizing the event which involved a peer-reviewed submission process to provide a scholarly presentation experience and receive feedback on their work from their peers and mentors. Research Division team member Dan Hargraves, MSW also assisted with logistics for the event, which is slated as an annual event for the June Grand Rounds.
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