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JOURNAL OF THE NEW KANSAS CITY MEDICAL SOCIETY

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Supporting Public Health, Medical Expertise and Health Equity

By Michael O'Dell, MD, MSHA, FAAFP

Thirty-five years ago, I published a review of two books for the *New England Journal of Medicine*. Both books touched on the roles and relationships of primary care physicians and the communities they serve. I wish my last sentence in that review didn't also reflect the present state: *Physicians cannot make the naïve assumption that support from the residents of their community exists or can be engendered when other community issues take precedence over health care.*[1]

Community issues drive the rejection of expert advice present among anti-vaxxers and those who mistake the protections of a mask for a political statement. Like Aesop's fabled grasshopper, our community chose its spending priorities poorly by catastrophically underfunding public health infrastructure, which then was starving for resources during the pandemic.[2] And the wrongs inflicted on those of color in our community manifest their tragic course in excess morbidity, mortality and distrust of even the medical profession.

As physicians, we are a diverse group, but surely we can reach a high level of agreement about revitalizing public health services. The issues surrounding health disparities are painful to us but well recognized, even if approaches to resolution remain debatable. As a medical society, what is our responsibility in participating in deciding what takes precedence in our community? What are we willing to advocate for, tolerate, or ignore in our community?

As physicians, we are a diverse group, but surely we can reach a high level of agreement about revitalizing public health services.

A good first question for us would be to ask, *"What is a higher priority, wellness or health care?"* The two are not synonymous, although they necessarily co-exist. Upton Sinclair provides a pithy quote applicable to our willingness to lack knowledge about social determinants of health: *"It is difficult to get a man to understand something when his salary depends upon his not understanding it."*[3]

The hospital can isolate us from the reality of the surrounding neighborhood. Our work with illness can seem endless. A trip to understand the source of diseases might seem a waste of treatment time. But physicians are uniquely positioned to identify clusters of illness, find their common origin, and work to eliminate that source. We need modern Dr. John Snow's working with city councils in removing today's Broad Street pump handle, even if that pump handle is now inadequate housing.[4]

The current pandemic seems to be drawing toward a stalemate regarding what the community currently values. Some experts now feel COVID-19 and its variants are here for the long term. Booster vaccinations are now under discussion as well as additional vaccines to address new variants.[5] The permanent presence of this virus will occur due to a lack of community resolve to take the steps needed to eliminate it. We remain more vulnerable to this threat and future threats than we need to be. As physicians and citizens, we all gain in health and wellness when the community highly values medical expertise, public health and parity for all in the community.

I am stepping away from the role of Editor as I retire from teaching and practice this year. This will be one of my last issues of *Kansas City Medicine*. Serving as your editor has been a joy! So many thoughtful and talented professionals have volunteered their time, thoughts and wisdom over the years. I thank all of them once again. The talents of Jim Braibish as managing editor have allowed me the freedom to consider content and write with Jim doing the hard work of layout, following up on those behind on providing content, etc. Angela Bedell and the board have always helped by holding the journal as an important member benefit and providing budget and other support. You next editor can anticipate wonderful backup. Thank all of you contributors and readers for interest in *Kansas City Medicine* and for your guidance.

(*references on pg. 5*)

KCMS Carries Momentum into 2021

SOCIETY PURSUES STRATEGIC PRIORITIES DEVELOPED THROUGH THE LEADERSHIP COUNCIL

By Scott W. Kujath, MD, FSVS, FACS

The year 2020 and COVID-19 challenged us like nothing before. I am proud to say that KCMS rose to the occasion, being there as a constant source of information and resources to help members navigate these uncharted waters. I would especially like to thank our 2020 president, Betty Drees, MD, for her steady and poised leadership and her commitment to delivering value to KCMS members.

Among our special initiatives in 2020, we presented webinars on COVID-19 leadership and Medicaid expansion in July, followed by a preview of COVID-19 vaccines in December. Each of these webinars featured outstanding leaders from medicine and the community. We held our Annual Meeting and awards presentation in a virtual format, again making sure that KCMS continued to be there for members despite the pandemic.

Our communications efforts ramped up with a bi-weekly electronic newsletter along with a new COVID-19 resources section on our website, backed up by social media posts. These kept members informed about the latest COVID updates. And, we must also mention those physicians who created the fantastic "Wear a Mask" videos that went viral on social media. Finally, KCMS created a series of "Get Care" graphics to help members remind patients not to delay their regular medical care needs.

2021 PRIORITIES

Looking ahead to 2021, our KCMS Leadership Council met to update our strategic priorities. Though 2020 was a year with unforeseen challenges, the Society continued to pursue our priorities, with advocacy for Medicaid expansion in Missouri and Kansas at the top of the list. Along with our Foundation, we ran full-page ads in the *Kansas City Star* and *Kansas City Business Journal* featuring the names of local physician supporters.

> Physician leadership is critical if health care is going to be patient-centered, and KCMS is prioritizing developing physician leaders.

This year, Medicaid expansion in Kansas remains on our minds and we are working closely with the Kansas Medical Society. Dr. Mark Brady, our past president and the KMS president-elect, will help keep our state and local efforts aligned. We also are watching the situation in Missouri after the Legislature eliminated funding for expansion.

At the top of the priority list for 2021 is education about the COVID-19 vaccination. The KCMS Leadership Council had a long discussion about the need to overturn myths and offer scientific facts to our patients and community. One program that will address this is our "Endorsed Experts" program, which will feature local physicians sharing advice with patients via video recordings hosted on the KCMS website. If you or one of your colleagues would be willing to participate, please contact our interim executive director, Annette Small, at asmall@kcmedicine.org.

The Society will also continue to elevate the physician voice in health care. We are being contacted by the media for statements more often, and the Endorsed Experts program will be beneficial in providing information. We will also continue to issue policy statements as we did in 2020.

Physician leadership is critical if health care is going to be patient-centered, and KCMS is prioritizing developing physician leaders. In late May, we will host a Leadership Book Study, led by Drs. Sarah Hon and Betty Drees. I would highly encourage you to participate, as this is a terrific opportunity to learn from these two leadership experts. I've worked closely with them on the KCMS board and they are remarkable.

If you have thoughts about these programs or others the Society might undertake, or would like to get more involved, I encourage you to contact me at drkujath@kcmedicine.org, or Annette Small at asmall@kcmedicine.org.

I look forward to each of you becoming part of our work to improve the health of people throughout Kansas City in 2021!

Scott W. Kujath, MD, FSVS, FACS, is a vascular surgeon with Midwest Aortic & Vascular Institute. He can be reached at drkujath@kcmedicine.org.

SUPPORTING PUBLIC HEALTH
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Michael O'Dell, MD, MSHA, Plans to Retire as Journal Editor

Dr. O'Dell and his wife, Kristi.

Michael O'Dell, MD, MSHA, will retire later this year from his service as editor of *Kansas City Medicine* after helming our journal for the past four-plus years.

This coincides with his June 30 retirement from his full-time positions at the University of Missouri-Kansas City, where he is chairman of the Department of Family and Community Medicine, and Truman Medical Center-Lakewood, where he is associate chief medical officer.

As editor, Dr. O'Dell guides the overall editorial direction and content of the journal. He also recruits physicians and other experts to contribute articles. Within each issue theme, he has emphasized content reflecting leadership, innovation and advocacy within the Medical Society.

"Dr. O'Dell has overseen achieving a high level of editorial quality that makes *Kansas City Medicine* a great source of pride for our Medical Society," said KSMS 2021 President Scott Kujath, MD. "The journal has earned national awards the past two years."

Dr. Kujath also emphasized Dr. O'Dell's overall service to KCMS. "Dr. O'Dell has been an exemplary leadership volunteer. After serving as president in 2015, he continued an active role on the board and was a key member of the task force that worked out the 2018 merger of the Wyandotte-Johnson County Medical Society with the former Kansas City society. He spelled out a vision of what one metro medical society could become."

In addition, Dr. O'Dell has served on the board of the Kansas City Medical Society Foundation since it was created in 2018 in a merger of the society-affiliated charitable care programs in both states. At the state level, he has been a KCMS delegate to the Missouri State Medical Association.

Dr. O'Dell has held his positions at UMKC and Truman since 2010. Prior to that, he was director of the Family Medicine Residency Program at North Mississippi Medical Center in Tupelo, Miss., and also served as chief quality officer and interim chief medical officer.

In retirement, Dr. O'Dell and his wife, Kristi, look forward to spending time with their six grandchildren ages 1-11.

Thanks also to Charles W. Van Way, III, MD, who began the revitalization of KCMS' publication into the current *Kansas City Medicine* in 2015 when it replaced the former *Bulletin*. To view past issues of *Kansas City Medicine* back to 2015, visit kcmedicine.org/journal.

MEMBERS NEEDED FOR KCMS EDITORIAL COMMITTEE

Would you like to help continue the excellence of our award-winning journal, *Kansas City Medicine*? Members are needed for our Editorial Committee where you will help develop ideas for content and articles. You are not required to write articles as a committee member, but simply be attuned to important developing issues that impact the practice of medicine and the health of the Kansas City community. For more information, contact Jim Braibish, managing editor, at editor@kcmedicine.org.

Is a Healthy Diet Really Good for Us?

RECOMMENDATIONS EVOLVE ON DAILY CARBOHYDRATE INTAKE

By Charles W. Van Way, III, MD, Editor Emeritus, *Kansas City Medicine*

For many years, we have been guided by the healthy diet recommendations from the U.S. Department of Agriculture.[1] Not surprisingly, these recommendations center on maximizing the use of farm products. Since the introduction of the Food Pyramid in the 1970s, and progressing through the transition to the current guidance system, MyPlate, there has been an unremitting focus on grains and vegetables as the foundation of a healthy diet. And with the current general popularity of vegetarian diets, that focus has sharpened.

So, how as that worked out for us? According to the Centers for Disease Control and Prevention, 74% of American adults are overweight or obese and 15% diabetic.[2] Sometimes both, of course. Now, the usual excuse is that this isn't the fault of the well-intentioned folks at the USDA. No, it's not their advice. It's all those pesky people who eat a lot of things that aren't good for them. But no matter how we look at things, the great American diet has clearly failed the test of time. Perhaps, some people say, it's time to take another look.

Currently, the USDA prescribes around 45-50% of calories as carbohydrates, depending on which choices are made. In the real world, most people consume 50-55% of their daily calories as carbohydrates. Many nutrition scientists are saying now that it's too much, especially in people who are obese, overweight and/or diabetic. Which, as noted above, is most of us. There is a strong argument that carbohydrates should be less than 35% of a healthy diet, perhaps much less. There is even a group called the Low Carb Action Network.[3] Yes, everyone today is an activist for something.

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HISTORY OF LOW-CARB DIETS

The arguments in favor of low-carbohydrate diets go back a long way. Starting with the Atkins diet in the 1970s, there have been countless so-called ketogenic diets advocated for weight loss. The basic idea is to cut carbohydrates and promote protein and fat. In an extreme keto diet, the patient will actually have ketone bodies in their urine. Such a diet will produce weight loss, as has been shown in many well-done studies.[4,5] It will also, among other things, lower both insulin levels and insulin resistance.

These effects have attracted attention well beyond weight loss clinics. Since this isn't an academic review, let me spare you the details. But studies in patients with diabetes have shown clearly that low carbohydrate diets are very effective in patients with diabetes, either Type I or Type II.[6] The metabolic syndrome can also be treated effectively with low-carbohydrate diets, even without inducing weight loss.[7]

Some people go further. Let us delve into what we might call "pop anthropology." The basic narrative is that our distant ancestors lived by hunting and gathering, resulting in a high-protein, high-fat and low-carbohydrate diet. When the Agricultural Revolution came about, the human diet shifted away from protein and fat, and became dominated by carbohydrates. According to the narrative, it didn't work well. People became smaller, lived shorter lives, and became subject to epidemic diseases. Today, industrial agriculture churns out great amounts of carbohydrates, much of which is converted to so-called junk food. For a current exposition of this narrative, see Mark Bittman's forthcoming book, *Animal, Vegetable, Junk*.[8] He actually uses the term, "suicidal agriculture." Be warned. It's not cheerful reading. It certainly is biased, but it does make one think.

Along with this narrative, some feel we should adopt the diet of our distant ancestors. The paleo diet emphasizes meat, unprocessed foods, fruits and vegetables, while cutting out dairy products, beans and grains. Like the keto diet, this is a low-carbohydrate diet. And both diets condemn "junk food." So does the USDA, for that matter. The paleo diet emphasizes a high-protein diet, whereas the various forms of the keto diet may also be high protein, but also use a lot of fat. In practice, there is less difference between the two than it appears. But there is a lot more

academic research on keto diets, which have been around much longer. Paleo diets are the new kid on the block. And the so-called carnivore diet, which is exactly what it sounds like, is probably a short-term enthusiasm.

All of this has caused much public interest. Google "keto diet," and you'll get 200 million hits. There are articles in national newspapers.[9,10] While I doubt that many of us will join the Low Carb Action Network, we do need to be aware of these dietary trends. Honestly, if your patients aren't asking you about these issues, perhaps you should be educating them.

RESISTANCE TO LOW-CARB

The forces against low-carbohydrate, high-fat/protein diets are formidable. For one thing, meat-eating is not politically correct. Enthusiasm for animal-free diets is growing, especially among the young and sensitive. Vegetarian alternatives are considerably more attractive than they were only a decade ago. Veggies can still be low carbohydrate, so this isn't a major objection. For another, raising animals for meat is less efficient than raising vegetables or grains. You have to grow vegetables first, then feed them to the meat animals (yes, grass is also a vegetable). Third, American agriculture is dominated by grain and vegetable monoculture on large commercial farms. Agribusiness, as they call it, has immense economic and political power. Lastly, animal husbandry is said to generate more greenhouse gases than raising vegetables. Whether this is actually true is another matter. Growing vegetables also produces carbon dioxide. But the public image of methane-producing cows is out there. And let's not talk about commercial hog farms. In the name of climate change, could a current or future administration mandate a vegetarian diet for everyone? Or perhaps levy a large tax on meat production? It's not as far-fetched an idea as it was a few years ago.

As physicians and citizens, these larger policy questions concern us. But what do we tell our patients? This seems to be much clearer. Most of our patients want to lose weight (as do many of us, as well). And the message from the diet literature is very clear. Whatever ill effects there may be of too much fat and/or protein, cutting carbohydrates is essential to losing weight. Lowering carbs to 35% or less of caloric intake has proven successful. Cut bread, cut rolls, omit sandwiches, and give up doughnuts. It's not a mystery. Even vegetarians can accomplish this, although it's admittedly more challenging. Obesity is a major health issue today. As physicians, we should know enough to advise our patients.

Should we advocate more extreme positions? The Atkins diet and all of its ketogenic variations are still going strong after five decades. The paleo diet? Even the carnivore diet? But a diet composed entirely of steak, salmon and broccoli seems to most of us little better than one composed of doughnuts, cake and Lucky Charms. Moderation in diet, as in most things, remains a virtue.

To conclude, as physicians, we should realize that we and our patients aren't doing so well right now. Changes need to be made.

Bon appétit!

Charles W. Van Way, III, MD, is editor emeritus of Kansas City Medicine *and is emeritus professor of surgery at the University of Missouri-Kansas City. Dr. Van Way is a past president of the American Society for Parenteral and Enteral Nutrition, and has written several books on nutrition support. He can be reached at cvanway@kc.rr.com.*

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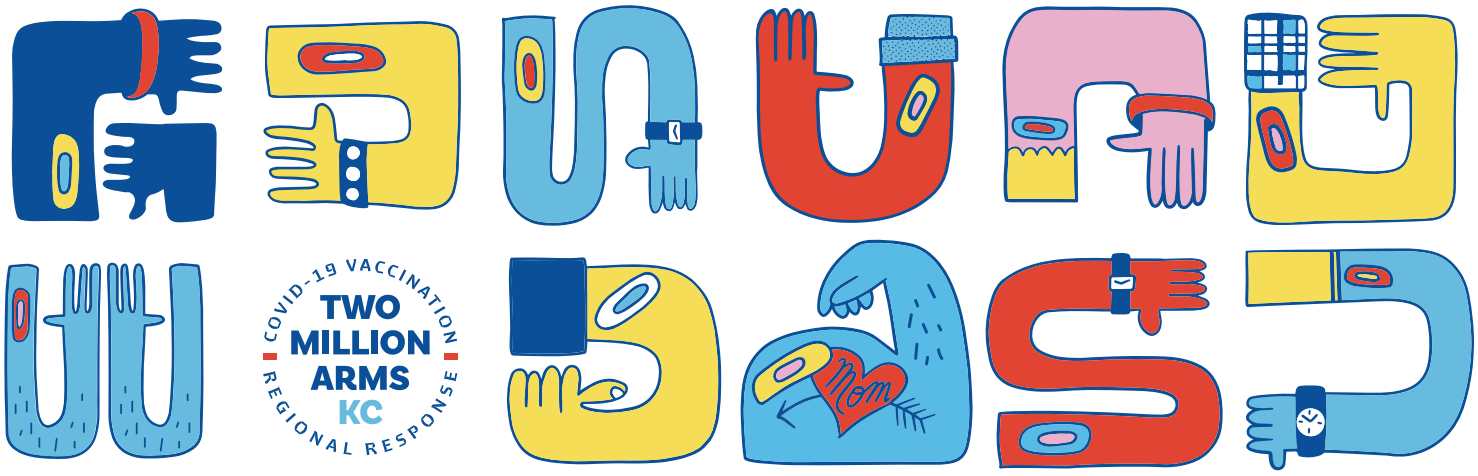
COVID-19 Vaccine: Now Is the Time

Resources for Physician-Patient Education



PATIENTS: Why get the vaccine?

- **It's safe.** Over 150 million vaccine doses have been administered in the U.S. to date.
- **Protect your family.** Avoid infecting family members, especially those with health risks.
- **Protect yourself.** Don't risk serious illness.
- **Protect the community.** The sooner most of us get immunized, the sooner that life can return to normal.

Where can I get the vaccine?

- Hospital Systems
- County Health Departments
- Pharmacies
- State Vaccine Finders

See a complete list of vaccine providers in the Kansas City area:
https://kcmedicine.org/covid/vaccine/where-to-find-vaccine or https://www.vaccinatekc.org/

ATTENTION PHYSICIANS: Please encourage your patients to get the COVID-19 vaccine. During the coming weeks, it will be critical to vaccinate as many people as possible—so we can reach that much-desired goal of herd immunity (75-80%) as quickly as we can. Join Kansas City's **Two Million Arms Campaign** in promoting vaccination to our community.

KANSAS CITY
MEDICAL SOCIETY

An Eventful First Year for Physician CEO

Q&A WITH STEPHEN REINTJES, SR., MD, PRESIDENT AND CEO OF NORTH KANSAS CITY HOSPITAL AND MERITAS HEALTH

It has been over a year since Stephen L. Reintjes, Sr., MD, was appointed president and CEO of North Kansas City Hospital in January 2020. To provide a smooth transition, retiring President and CEO Peggy Schmidt served in an advisory role until July 2020—as COVID-19 brought new and unplanned challenges.

Dr. Reintjes shares his thoughts on his first year as NKCH CEO, the COVID-19 pandemic and physician leadership with *Kansas City Medicine*.

A neurosurgeon, Dr. Reintjes has been a respected and engaged member of the North Kansas City Hospital medical staff for 30 years. Prior to his appointment as CEO, he held numerous executive leadership positions at the hospital, including director of spine surgery and medical staff president.

Dr. Reintjes, a Kansas City native, graduated from the University of Kansas School of Medicine and completed his neurosurgery residency at KU Medical Center. His undergraduate degree is from Georgetown University.

How have you prepared yourself for leadership positions?

Throughout my medical career, I participated in various health care and civic initiatives. In 2008, I was president of the Kansas City Medical Society (at the time named the Metropolitan Medical Society). Prior to that, I worked with a coalition of physicians to change Missouri's tort reform laws in 2004. While these roles gave me a deeper understanding of leadership in the health care space, serving on the boards of BioNexus KC, Midwest Transplant Network and Saint Luke's Hospital provided exposure to leaders from all corners of the community, which was an invaluable experience.

(Photo by North Kansas City Hospital)

How does having a physician CEO benefit the hospital?

As a physician, I worked alongside care providers and spent time at the patient's bedside. This experience helped me understand what care providers want and patients need. As CEO, I use this knowledge to balance the needs of staff and the community we serve.

During the COVID-19 pandemic, what's been your North Star in managing the hospital's response?

During the pandemic, we entered uncharted territory. At times, it felt like a lot to navigate. But, as long as we continued to run toward the sick and serve those in need, I knew we were doing the right thing for the right reason.

What have been your successes?

Most recently, I've taken great pride in our contributions to Operation Safe, the Northland coalition that's administered over 97,331 vaccines to eligible Missourians. In addition to meeting the ever-changing needs of our COVID-19 patients and the community, we continued to provide lifesaving stroke, trauma and heart attack treatment, eventually earning The Joint Commission's Gold Seal of Approval® and certification for Comprehensive Cardiac Center, Advanced Total Hip and Total Knee Replacement, and Primary Stroke Center. Equally important, we took care of our own, avoiding employee furloughs and raising the minimum base wage to $15 per hour.

What do you find most satisfying about leadership?

I take great satisfaction in working with a talented team of professionals who are dedicated to fulfilling our mission. When hospitals around the country struggled to care for COVID-19 patients, everyone pitched in to adapt to the needs of our patients, employees and the community. Then, when our COVID-19 census dropped and we saw an uptick in available vaccines, we rose to that occasion, too, partnering with Operation Safe to vaccinate the community. To serve with this group of compassionate, capable individuals is an honor.

What is the biggest thing you've learned in the past year as CEO?

I've had a firsthand look at the bravery of care providers and the dedication of health care leaders. When it comes to caring for their patients and the community, I've learned they'll stop at nothing.

Reflections on Organized Medicine, Care for the Underserved

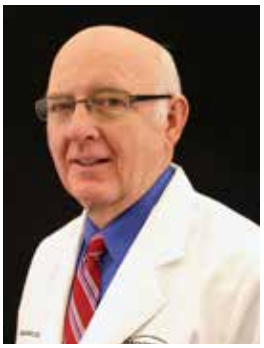
TWO LONGTIME LEADERS COMPLETED THEIR TERMS ON THE KCMS BOARD OF DIRECTORS IN 2020

The Kansas City Medical Society appreciates the many years of service of John C. Hagan, III, MD, and Sheila M. McGreevy, MD, FACP, to the Society as well as organized medicine and charitable care efforts. Their terms on the KCMS board ended December 31, 2020.

Though they won't be on the KCMS board, neither is going far. Dr. Hagan continues to serve as editor of the highly regarded* Missouri Medicine *journal, which he has helmed for the Missouri State Medical Association since 2000. Dr. McGreevy continues as a board member of the Kansas City Medical Society Foundation, which oversees charitable care programs for the underserved.

In the following interviews, both reflect on their backgrounds in organized medicine and charitable care and offer their thoughts on the future.

JOHN C. HAGAN, III, MD



The contributions of John C. Hagan, III, MD, to organized medicine span over four decades. He was president of the former Clay-Platte County Medical Society in 1981-82 and served for six years on its executive committee. After helping to facilitate Clay-Platte joining with the Jackson County Medical Society to form the Metropolitan Medical Society of Greater Kansas City, he was the society's president in 2010. Dr. Hagan has remained continuously on this board since then, including Metro Med's renaming as the Kansas City Medical Society and the 2018 merger with the Medical Society of Johnson and Wyandotte Counties to create today's KCMS. His capstone achievement, however, has been serving as editor of *Missouri Medicine,* the Missouri State Medical Association journal, for over 20 years. Under his leadership, *Missouri Medicine* has become nationally recognized, including being indexed by PubMed and Medline. He also has been active in his specialty societies, and was president of the Missouri Society of Eye Physicians and Surgeons in 1998-99. Dr. Hagan is the recipient of numerous awards. A native of Mexico, Mo., he obtained his medical degree from Loyola University of Chicago Stritch School of Medicine. He interned at Milwaukee County General Hospital and completed residency at Emory University. He served as a captain in the U.S. Air Force Medical Corps from 1970-72.

How did you first get involved in organized medicine?

During my residency at Emory University, both the Georgia Medical Association and the Atlanta Medical Society had leadership programs for young, in-training physicians and were very welcoming. I learned from experienced physicians the importance of advocacy, and how and when to speak with a legislator. I have actively pursued physician advocacy at local, state and national levels for over 40 years. Knowing the importance of mentoring, I have served as such for young physicians.

Are there physicians you would consider mentors in organized medicine or had key influences on you?

My first partner in North Kansas City, Truman Schertz, MD, introduced me to leadership in the Clay County Medical Society and the Missouri State Medical Association and encouraged me to be active.

What was your role in the merger of Clay-Platte into Metro Med in 2000?

The Clay County Medical Society was quite active, but the Platte County Medical Society was frankly inert, so the physicians in that county were not represented. I helped other physicians interested in the merger to obtain a signature petition from physicians in Platte County, develop enthusiasm for the merger from Clay County physicians and coordinate the merger with MSMA approval. It has worked out well and, of course, the later integration of Jackson, Clay and Platte counties produced a stronger organization,

as did the recent merger with Medical Society of Johnson and Wyandotte Counties.

What do you consider your biggest accomplishments with KCMS, Metro Med and Clay-Platte?

I think helping all physicians in the Kansas City metro area realize that we would be far more effective advocating for our patients and our profession if we weren't separated into disparate geographic areas. Merging of the five county medical associations was huge. KCMS milestones include revising the bylaws several times, strengthening the finance committee, and shoring up the organizations financials and administrative management and oversight of the same.

You've been editor of *Missouri Medicine* since 2000. How did you get involved with *Missouri Medicine?*

I have always enjoyed writing. After I joined MSMA, I wrote the editor and said if a position on the editorial board came up in ophthalmology I would be honored to be considered. Later I was appointed to the board. Missouri Medicine *was a far cry from the national journal it is now. About 1998, I wrote a very critical letter to the then-editor and MSMA Executive Director C.C. Swarens. I outlined how content and presentation could and should be improved. In 2000, the physician editor left for a position out of state. Mr. Swarens called me and said if I thought I could do a much better job it was mine to try. It was a very difficult turnaround. However MSMA wanted a better journal and they hired Liz Fleenor as managing editor. She is ultra-competent and almost as obsessive as I am. We have worked cordially together for almost 20 years. The other major factor was developing issues around medical themes put together by the leading departments of Missouri's six medical schools on eight campuses.*

The extensive content of every issue of *Missouri Medicine* has to be a great source of pride, along with the journal being listed on PubMed. Thoughts?

Recertifying for PubMed was the most difficult project in the past 21 years. Being indexed by PubMed, Medline and archived at PubMed Central are crucial to any medical journal. Several years ago, PubMed changed their technical specifications for uploading; they also said any journal approved before 1985—including our journal—had to be re-certified. We had to retain a technical firm in New York to re-package all our content for uploading. We had to undergo a vigorous scrutiny of our content, our peer-review process, and validate the quality of our editorial and specialty editorial board. They looked at over two years' previous issues. While we were confident of the quality of Missouri Medicine, *failing had such dire consequences that it was a stressful year. One requirement was to change all current and past issues to open access; we were happy to do so. We were re-certified and also accepted into PubMed Central Archives. By most any objective criteria,* Missouri Medicine *is among the top three state medical journals.*

What is your view of the value that KCMS and organized medicine bring to physicians and the community?

The most important value is improving our patients' care and the contributions of time, money and services to people with inadequate or no insurance. Making sure insurance payments to physicians are fair and promptly paid helps not only the medical community but also the patients we serve. Missouri and Kansas, like most states, each has a vicious tort bar. Every day, you hear them on television trolling for clients looking to sue physicians, hospitals and pharmaceutical companies. Only by organizing into groups like KCMS, MSMA and KMS, can we hope to counteract the ultra-powerful trial bar. Let's not forget the United States has more lawyers than the rest of the world put together and they almost all aspire to seven-figure incomes. I'm very happy with the role KCMS and MSMA have played in passing tort reform twice. Much of the problems this country has can be traced to a glut of lawyers.

What is your view of the future of organized medicine?

It is challenged. When I came to Kansas City in 1975 and began practice in Clay County, it was a stigma not to belong to the medical society. New members had to have an endorsement of two existing members. No advertising was allowed, just a tasteful ad in the newspapers for several weeks announcing the opening of a new practice. Hospitals did not employ physicians—even ER, anesthesia and pathology were private practice. Fast-forward to where we are now. New physicians are increasingly employees of hospitals and health systems; new physicians have to be convinced of the benefits of organized medicine. Advertising was supposed to bring down the cost of medical care. It didn't; anyone with the money can go on TV and say, "I am the greatest doctor in the world." Also, every medical and surgical specialty has a "doctor-wanna-be" that would like to legislate themselves into the full scope of medicine without going to medical school. Without organized medicine, optometrists would be doing eye surgery, and nurses would be independently practicing the full scope of medicine and surgery. An appendectomy by Dr. Nurse is not off the table with them. Without educating physicians-in-training and young physicians of the importance of organized medicine to their personal and professional well-being, organized medicine could wither and die.

What advice do you offer young physicians on why they should get involved?

The greatest benefit of getting involved in organized medicine is to you, your practice, your patients and your family. Do your part—as a minimum, belong to all local and state organizations like KCMS, MSMA, KMS. Consider being involved in leadership positions. Be generous with your time and money when it comes to advocating for your profession.

SHEILA M. MCGREEVY, MD, FACP

Through much of her career, internal medicine physician Sheila McGreevy, MD, FACP, has been committed to care of the poor and underserved. After six years in private practice, she served with Duchesne Clinic, which provides care for the uninsured in Kansas City, Kan., from 2003 to 2013. She was medical director for eight of those years. In 2013, she joined the faculty of the University of Kansas School of Medicine, where she now is a clinical associate professor. She played a lead role in the formation of the Wy Jo Care program in 2005; that program coordinates donated specialty care for the uninsured and is now part of the Kansas City Medical Society Foundation. She has continued to be closely involved with Wy Jo Care, and she was the second chair of merged KCMS Foundation board in 2019. Dr. McGreevy is a graduate of the Creighton University School of Medicine, where she also completed residency and was chief resident.

How did you become involved in providing medical care to the poor and underserved through Duchesne Clinic?

When I moved to Kansas City in 1996, I was one year out of residency. I joined a private practice in Kansas City, Kan., with wonderful, community-focused mentors such as Robert Potter, Ann Allegre and Ann Haddenhorst. Dr. Haddenhorst was the medical director of Duchesne Clinic, and our group took care of Duchesne Clinic patients when they were admitted to the hospital. When I resigned from the practice in 2002, after the birth of my fourth child, I started volunteering at Duchesne Clinic once a week. Eventually I became part of their staff, staying for about 10 years and serving as their medical director for most of that time.

How did the creation of Wy Jo Care come about?

Practicing medicine in a safety net clinic is eye opening. The first realization is wow—we can provide a solid level of primary care for people for very little cost. It takes a lot of cobbling together of resources, but important, lifesaving work goes on every day in the modest exam rooms of safety net clinics. The second realization is yikes—what we do within this clinic is not enough. Patients need specialty care which is frustratingly out of reach. Orthopedic procedures, eye exams, gallbladder and hernia surgery, skin cancer removals, colonoscopies, hysterectomies, cancer care, heart procedures—all these basic medical treatments are widely available in Kansas City, but were often unobtainable to our patients at Duchesne Clinic.

Soon after I started at Duchesne Clinic, Sr. Ann, the executive director, asked me to join a small group of safety net clinic providers in Wyandotte County who were working to improve access to specialty care. After some stops and starts we eventually put together a business plan for Wy Jo Care, building on the idea that specialists throughout Kansas City would be willing to help serve the uninsured, if they could do so within the framework of a well-organized program. In 2005 or so, we presented our plan to the Medical Society of Johnson and Wyandotte Counties and asked them to take on the administration of the program. The Medical Society physician leaders took a courageous leap of faith and said "yes." That was the start of my active participation in organized medicine.

What do you consider your biggest accomplishments in KCMS and its predecessors?

I would consider two accomplishments: One, I was part of the leadership of the society during the transition from two local medical societies divided by the state line to one bi-state society in Kansas City. Although not without hiccups, I believe that change was overall to the benefit of the society. Two, I have been part of an ongoing evolution of purpose in the medical society. If I have helped our organization re-imagine itself as a powerful community change agent, especially as pertains to physicians helping vulnerable people, then that would most likely be the biggest accomplishment of my time with the medical society.

What is the importance of physicians stepping up to ensure that the poor and underserved receive needed medical care?

Physicians hold positions of respect in the community and in health care systems. I believe it is our obligation to push back against a purely profit-driven model of care and to use our voice to continually reiterate the importance of service and access to health care for all.

What are some of the most impactful questions you hear from safety net patients?

- *If I have ovarian cancer and no access to cancer care, is it better to stay here with*

my husband and 3-year-old child, or is it better to say good-bye to them and go back to Mexico, knowing I may never see them again?

- *If I have colon cancer and I am turned away from the front desk of a surgeon's office because I do not have the money for the visit, is it better to swallow my pride and go back and plead my case, or just wait to see if Medicare comes through, even though the cancer may spread in the meantime?*
- *I can't afford the surgery the neurosurgeon recommended. How do I keep this aneurysm in my head from bursting?*
- *Should I buy insulin or pay my rent?*
- *How will I know when my potassium level is high enough that if I go to the emergency department, they will give me dialysis, but not high enough that it would kill me?*
- *If I eat one main meal per day at the St. Mary's food kitchen, what is the best insulin regime for me?*
- *If I go blind, then will I finally get Medicare?*

How can organized medicine (KCMS, KMS, etc.) support the improvement of care for the poor and underserved?

Direct care, through organizations such as Wy Jo Care, but also through advocacy for system change at all levels: health systems, state governments and federal programs.

What advice do you offer to young physicians on how they can get involved in charitable care or safety net work?

There are all sorts of avenues to find the right service opportunity: the Medical Society, medical schools and their free clinics, community safety net clinics, community shelters and other nonprofits, churches and schools. If the time commitment of direct patient care is too much—which is totally understandable given the stress of a medical practice and family obligations on young physicians—consider advocacy on behalf of the uninsured instead of direct patient care. Most of all, don't stress about not doing enough. Take the long view and try to do what you can within your time constraints.

Heart-Healthy Resources for Your Patients

PROGRAMS IN JOHNSON COUNTY SUPPORT PATIENTS TOWARD LIFESTYLE MODIFICATION AND HEART HEALTH

By Joseph LeMaster, MD, MPH

Treating hypertensive and pre-hypertensive patients often requires a balance between medical intervention and lifestyle modification. As health care providers, we have much more control over a patient's treatment plan than we do over their desire to engage in lifestyle change. Research confirms that modest changes can have a big impact on chronic disease management and prevention. The reality is, however, that lifestyle change often requires multiple touchpoints and ongoing support. Fortunately, Johnson County has a robust network of organizations offering programs and resources designed to help patients work to adopt a more heart-healthy lifestyle. Take a look at these four local organizations and encourage your patients to connect with them to help support their wellness efforts.

JOHNSON COUNTY DEPARTMENT OF HEALTH AND ENVIRONMENT

Chronic disease self-management programs are workshops for adults with at least one chronic health condition, which may be hypertension. The group-based workshops focus on disease management skills including decision making, problem-solving, and action planning. For more information or to connect patients to this program, contact Alison Wiley at alison.wiley@jocogov.org.

The Johnson County Health Department has been providing the **National Diabetes Prevention Program** to Johnson County residents since 2015. Trained lifestyle coaches lead the program and have incorporated blood pressure monitoring and heart health education into the CDC's existing curriculum. As you know, reducing risk for one chronic condition often results in reduced risk for multiple chronic conditions. For more information or to connect patients to this program, contact Anne Hayse at anne.hayse@jocogov.org.

AMERICAN HEART ASSOCIATION

The American Heart Association Kansas City affiliate has a variety of information, resources and guidance for patients to help lower blood pressure, including finding heart-check foods in the grocery store, resources on better sleep and stress reduction and a collection of free exercise videos available through the **Move More Together** initiative.

They also have programs to help patients with high blood pressure manage and track their conditions, including the **Check. Change. Control.** program. CCC has been around for almost 10 years, but the AHA has recently launched a new CCC platform sans the tracking feature. The new platform is more user friendly and includes the newest heart health data. For more information, contact Erin Gabert at erin.gabert@heart.org.

K-STATE RESEARCH AND EXTENSION OFFICE

The Johnson County K-State Research and Extension office offers a variety of health-related services, including information on sodium-reduced diets, heart-healthy classes taught by Master Food Volunteers and programs that focus on physical activity, such as **Walk With Ease** and **Walk Kansas.** For more information or to connect patients, contact Crystal Futrell at crystal.futrell@jocogov.org.

JOHNSON COUNTY PARK AND RECREATION DISTRICT

Did you know that Johnson County has over 450 miles of trails? Providing patients with the Johnson County Park and Recreation District's comprehensive **trail guide** is an easy way to encourage physical activity at no cost to the patient.

Heart-Healthy Opportunities in the Kansas City Area

Opportunities to connect patients with health promotion and recreation activities are available throughout the metropolitan area. Here are a few:

HEALTH PROMOTION

Health Departments

Johnson County
https://www.jocogov.org/dept/health-and-environment

Wyandotte County – http://www.hcwyco.org/what-we-do-2

Kansas City, Mo. – http://bit.ly/kcmo-health

Jackson County
https://jacohd.org/initiatives/building-a-healthier-jackson-county

Clay County – https://www.clayhealth.com

Community Organizations

American Heart Association Kansas City
https://www.heart.org/en/affiliates/kansas/kansas-city

YMCA/Diabetes – http://bit.ly/ymkc-diabetes

YMCA/Chronic Disease Management
http://bit.ly/ymkc-chronic

Kansas State University Research and Extension
https://www.johnson.k-state.edu

Area hospitals also offer a wide range of health education and promotion programs.

WALKING & BICYCLING TRAILS, RECREATION PROGRAMS

Regional – http://bit.ly/KC-trails

Johnson County – https://www.jcprd.com/592/Trail-Guide

Johnson County 50-Plus Program
https://www.jcprd.com/170/50-Plus

Wyandotte County
https://www.wycokck.org/Parks/Recreation.aspx

Kansas City, Mo. – https://kcparks.org/about-recreation/trails/

Jackson County – https://www.makeyourdayhere.com

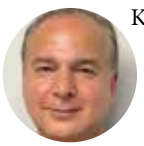
Clay County – http://bit.ly/clay-trails

In addition to multiple parks and a robust trail system, JCPRD has an entire department dedicated to providing programs, events and resources to Johnson County residents age 50 and over. JCPRD's **50 Plus Program** offers an extensive menu of exercise classes for all abilities, meditation for stress reduction and technology guidance classes designed to assist older adults with using the internet, smartphones and phone applications so they can better access information and resources. To learn more, contact Michelle Alexander at michelle.alexander@jocogov.org.

Joseph LeMaster, MD, MPH, is a professor of family medicine at the University of Kansas School of Medicine and is public health officer for Johnson County, Kan. This article also can be viewed online at https://kcmedicine.org/heart-healthy-resources-for-your-patients.

In the News

Saint Luke's Health System President and CEO **Melinda L. Estes, MD,** was named one of Modern Healthcare's 100 Most Influential People in Healthcare for 2020. Dr. Estes served as chair of the American Hospital Association in 2020.



KCMS member and gastroenterologist **Farid Namin, MD,** is opening a personal protective equipment manufacturing plant. PPE MFG USA's 16,000-square-foot plant in Riverside will produce N95 masks and surgical masks along with head and shoe covers.

In Memoriam

Donald Kuenzi, MD, passed away on March 14 at the age of 94. Dr. Kuenzi was a past president of the former Metropolitan Medical Society (now part of KCMS) and the former Clay County Medical Society. Board certified, he practiced family medicine in the Northland from 1954 until his retirement in 1991. He was a board member of Health Teams International, through which he served on medical missions.

Sherman Steinzig, MD, died on December 4, 2020, at the age of 95. A cardiologist in private practice, he founded the KCMS Osler Society, which serves as a mentoring program for medical students at the University of Kansas and University of Missouri-Kansas City. He received both his undergraduate and medical degrees from the University of Kansas.

Keep Moving and Avoid Surgery

WALKING PROGRAM HELPS PATIENTS MANAGE PERIPHERAL ARTERY DISEASE

Five years ago, Robert, a 58-year-old farmer, was at a turning point. Overweight and suffering the consequences of an unhealthy lifestyle, he was diagnosed with peripheral artery disease and faced the possibility of vascular surgery. He was given the option of a supervised walking program—which he has followed faithfully. Today, Robert is successfully managing his symptoms—and has avoided the operating room.

"He is determined to keep his symptoms under control so he won't ever need surgery," says his vascular specialist, Austin Wagner, DO, FSVS, RPVI, of Midwest Aortic & Vascular Institute (MAVI).

MAVI has helped many patients like Robert delay or avoid vascular surgery through Supervised Exercise Therapy (SET).

"Supervised Exercise Therapy really works. Patients can be managed well conservatively for a long period of time," Dr. Wagner noted. "Vascular surgeons long have been champions of SET."

THE PROBLEM OF PERIPHERAL ARTERY DISEASE

Peripheral artery disease (PAD) affects more than 10 million people in the United States.[1] Caused by the buildup of fatty plaque, PAD restricts blood flow to the peripheral arteries in the arms, legs and feet. It is more common in people who are 65 or older but can occur at nearly any age. Smoking, high blood pressure, high cholesterol or triglycerides, diabetes, kidney failure and obesity increase the risk for PAD. African Americans are 60% more likely to be affected.[2] If left untreated, PAD can result in significant blockages, pain and possibly, amputation. It is associated with increased risk for heart attacks, strokes and coronary heart disease.

An article in the American Heart Association journal *Circulation* described the impact: "Patients with lower-extremity peripheral artery disease (PAD) have greater functional impairment, faster functional decline, increased rates of mobility loss, and poorer quality of life than people without PAD."[3]

HOW SUPERVISED EXERCISE THERAPY HELPS

SET is a walking or exercise therapy prescribed by a physician. Typically done at a physical therapy or rehab facility, SET generally involves the patient walking on a treadmill three times a week for 30-60 minutes each session. The patient attempts to walk until symptoms begin, with the goal being to increase the length and duration of walking. The program continues for three to six months, when patients can be transitioned to home-based exercise.

"There is a lot of data showing that SET works. More than 20-25 randomized trials have reported the benefit," according to Dr. Wagner. Recent studies have found that functional benefits gained after SET are comparable to improvements after lower-extremity angioplasty and stenting.[3]

While exercise therapy for PAD is not a new idea, SET received a big boost in 2017 when the Centers for Medicare and Medicaid Services (CMS) approved SET as a Medicare-reimbursable service. CMS also provided specific guidance on implementing SET programs.

Wolfgang Kluck of Lee's Summit walks a treadmill as part of his Supervised Exercise Therapy program. Both he and his wife, Mary Lou, are MAVI patients in SET therapy.

Another enhancement on the horizon is a smartphone app for home-based SET that has been developed by the Society for Vascular Surgery. Patients will be able to do their walking on a treadmill or a track while the app monitors their walking speed and incline. The app also will give the patient reminder notices and educational information. A randomized control trial for the app is scheduled to begin in May.

ADVICE FOR REFERRING PHYSICIANS

Dr. Wagner offers advice for primary care and other referring physicians who see patients presenting symptoms that could be signs of PAD.

"The initial symptoms in patients

(*continued on pg. 19)*

Information Blocking: A Practical Perspective

FEDERAL RULES PROHIBIT PROVIDERS AND VENDORS FROM INTERFERING WITH ACCESS TO OR SHARING OF ELECTRONIC HEALTH INFORMATION

By Erica Ash, JD; Wakaba Tessier, JD; and Kelsey Toledo, JD

On May 1, 2020, the Department of Health and Human Services, Office of the National Coordinator for Health Information Technology (ONC) released its final rule on **information blocking** as part of the 21st Century Cures Act. The Final Rule applies to health care providers, health information technology developers (subject to ONC's Health IT Certification Program), health information networks and health information exchanges. It prohibits these entities from unreasonably interfering with the access, exchange or use of electronic health information (EHI). HHS extended the original compliance date, which was November 2, 2020, to April 5, 2021.

WHAT IS INFORMATION BLOCKING?

Information blocking is generally a practice that, except as required by law or covered by an exception, is likely to interfere with access, exchange or use of electronic health information. The entity has actual knowledge—or in the case of health IT developers, health information networks or health information exchanges, should know—that the practice is unreasonable and is likely to interfere with, prevent or materially discourage access, exchange or use of EHI. Until October 6, 2022, electronic health information is limited to the subset of EHI represented by the data elements identified by the U.S. Core Data for Interoperability (USCDI) standard.[1] On and after October 6, 2022, the information blocking regulation in 45 CFR part 171 will pertain to all EHI (as defined in 45 CFR 171.102).

> The entity has actual knowledge—that the practice is unreasonable and is likely to interfere with, prevent or materially discourage access, exchange or use of EHI.

Some examples of information blocking include:

- Hospital policies or procedures that require personnel to obtain an individual's written consent before sharing the individual's electronic health information with unaffiliated providers for treatment purposes even if obtaining such consent is not required by state or federal law.
- Contractual arrangements that prevent sharing or limit how EHI is shared with patients, their health care providers or other third parties.
- Patients or health care providers become "locked in" to a particular technology or health care network because their electronic health information is not portable.
- Charging an individual, their personal representative or another person or entity designated by the individual for electronic access to the individual's EHI.
- A health care provider has the capability to provide same-day access to EHI in a form and format requested by a patient or a patient's health care provider but takes several days to respond.

ARE THERE ANY EXCEPTIONS TO THE INFORMATION BLOCKING RULE?

Yes. There are eight exceptions to the information blocking rule. The exceptions generally fall into two categories: 1) exceptions that involve not fulfilling requests to access, exchange or use of EHI; or 2) exceptions that involve procedures for fulfilling requests to access, exchange or use of EHI. To meet any exception under the information blocking rule, the provider or IT resource must meet all applicable requirements and conditions of the exception at all relevant times.

Here are the exceptions that involve *not fulfilling requests* to access, exchange or use of EHI:

1. Preventing harm exception.[2] It will

not be information blocking for a provider or IT resource to engage in practices that are reasonable and necessary to prevent harm to a patient or another person, provided certain conditions are met. This exception aligns with existing HIPAA regulations.[3]

2. Privacy exception.[4] It will not be information blocking if an entity does not fulfill a request to access, exchange or use EHI in order to protect an individual's privacy, provided certain conditions are met.

3. Security exception.[5] It would not be information blocking for an entity to interfere with the access, exchange or use of EHI in order to safeguard the confidentiality, integrity and availability of EHI, provided certain exceptions are met.

4. Infeasibility exception.[6] It will not be information blocking if an entity does not fulfill a request to access, exchange or use EHI due to the infeasibility of the request, provided certain conditions are met.

5. Health IT performance exception.[7] It will not be information blocking for an entity to take reasonable and necessary measures to make health IT temporarily unavailable or to degrade the health IT's performance for the benefit of the overall performance of the health IT, provided certain conditions are met.

Here are the exceptions that involve *fulfilling requests* to access, exchange or use of EHI:

1. Content and manner exception.[8] It will not be information blocking for a provider or IT resource to limit the content of its response to requests to access, exchange or use EHI or the manner in which it fulfills a request to access, exchange or use EHI provided certain conditions are met.

2. The fees exception.[9] It will not be information blocking for an entity to charge fees, including fees that result in a reasonable profit margin, for accessing, exchanging or using EHI, provided certain conditions are met.

3. Licensing exception.[10] It will not be information blocking for an entity to license interoperability elements for EHI to be accessed, exchanged or used, provided that certain conditions are met.

You should review existing policies and procedures relating to the use and disclosure of EHI to determine whether revisions should be made in light of the information blocking rule.

PRACTICAL CONSIDERATIONS

Determine whether the information blocking rule applies. The definition of health care provider, health information exchange and health information network are all broad so that even if you do not think the rule applies to you, think again and make sure that that is indeed the case.[11] If the information blocking rule does in fact apply, there are steps you should be taking now to comply. Depending on whether you are a provider or an IT resource, the compliance steps you need to take will vary.

Assess risks of non-compliance. Because penalties will vary on based on what type of entity is involved and to what extent the action was information blocking, it is important to understand which role a person or organization holds under the Final Rule. For providers, ONC did not establish a mechanism for information blocking disincentives; however, providers must agree to "prevention of information blocking" in order to meet CMS' promoting interoperability (PI) reporting requirements. Furthermore, a provider may be acting in more than one role (e.g., as an IT developer, health information exchange or health information network) for the purposes of information blocking. In such cases, a violation of the information blocking rules could subject the entity to civil monetary penalties. Thus, it is important to understand how the organization or provider is functioning in order to determine possible risks of noncompliance.

Policies. As a preliminary matter, if you are a health care provider, you should review existing policies and procedures relating to the use and disclosure of EHI to determine whether revisions should be made in light of the information blocking rule. Moreover, organizations should review existing contract templates, such as business associate agreements, to access whether revisions are needed. In addition to reviewing existing policies, organizations should consider implementing policies specifically relating to information blocking. In particular, policies may focus on what the exceptions are, and who within an organization will be responsible for assessing whether and documenting when an exception to information blocking may be used.

Another important policy that every organization should implement is a policy regarding how it will enforce the information blocking prohibitions and ensure staff compliance. In part, this

requires organization to address how they will identify information blocking. For example, one practice to help ensure compliance would be to audit staff who use exceptions frequently to withhold information. By conducting regular audits, the organization can show that it is diligently trying to prevent information blocking. Further, organizations should also have policies describing the sanctions and possible supplementary training for instances where providers are information blocking.

In addition, the policies should also answer the following questions:

- Who is in charge of auditing records?
- How will complaints by patients be investigated?
- Will there be a dedicated email address for inquiries?
- Who approves the use of an exception? Is it a committee or the individual?
- How will staff be informed regarding what information is being automatically sent to patients?
- How are minors' records handled? May their parents automatically have access to all their records?
- What disciplinary actions are appropriate for providers who are consistently information blocking when an exception does not apply?

Training and staff communication. As is necessary for most compliance efforts, training and staff communication on information blocking are essential. As such, organizations should implement training programs that ensure staff get the information they need on an ongoing basis, to comply with the rules and the organization's policies relating to information blocking. Training may focus on how to determine when a practice is information blocking, when an exception applies and the conditions of applicable exceptions, what will be provided to patients and other authorized requestors from the medical record that was not previously provided, and what steps to take if a staff member suspects information blocking is occurring.

CONCLUSION

New legal requirements like this information blocking rule can easily cause concerns and compliance challenges. While each organization will have differing needs, a structure for implantation and well-developed compliance plan will allow organizations to be well-prepared to prevent information blocking.

Wakaba Tessier *is a partner in the Kansas City office of Husch Blackwell LLP;* ***Erica Ash*** *and* ***Kelsey Toledo*** *are associates with the firm, all working with a variety of health care clients. Wakaba regularly counsels clients on sensitive and highly regulated issues including health information confidentiality, mental health records, multistate recordkeeping and data transfer, and big data strategies for the creation and implementation of data warehouses. She can be reached at wakaba.tessier@huschblackwell.com.*

REFERENCES

1. 45 C.F.R. § 171.103

2. 45 C.F.R. § 171.201.

3. See 45 CFR § 164.512(j).

4. 45 C.F.R. § 171.202.

5. 45 C.F.R. § 171.203.

6. 45 C.F.R. § 171.204.

7. 45 C.F.R. § 171.205.

8. 45 C.F.R. § 171.301.

9. 45 C.F.R. § 171.302.

10. 45 C.F.R. § 171.303.

11. 45 CFR 171.102 assigns the same meaning as "health care provider" at 42 U.S.C. 300jj. This "includes hospital, skilled nursing facility, nursing facility, home health entity or other long term care facility, health care clinic, community mental health center, renal dialysis facility, blood center, ambulatory surgical center, emergency medical services provider, Federally qualified health center, group practice, pharmacist, pharmacy, laboratory, physician, practitioner, provider operated by, or under contract with, the IHS or by an Indian tribe, tribal organization, or urban Indian organization, rural health clinic, a covered entity ambulatory surgical center, therapist and any other category of health care facility, entity, practitioner, or clinician determined appropriate by the Secretary."

WALKING PROGRAM

(continued from page 16)

with PAD can include pain, fatigue and discomfort in the legs. However, other pathologies can mimic claudication," Dr. Wagner explained. "The vascular surgeon can differentiate these vascular issues. We have a variety of testing available in our offices."

SET is an effective first-line option for patients. "Not all patients need procedures or interventions. We want to give patients the choice to manage their symptoms through exercise," Dr. Wagner concluded.

For more information on Midwest Aortic & Vascular Institute, visit **www.mavi.life.**

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1. Society for Vascular Surgery. Peripheral Artery Disease. https://vascular.org/patient-resources/vascular-conditions/peripheral-arterial-disease

2. Collins TC, Peterson NJ, Suarez-Almazor M, Ashton CM. The Prevalence of Peripheral Arterial Disease in a Racially Diverse Population. *Arch Intern Med.* 2003;163(12):1469-1474. doi:10.1001/archinte.163.12.1469

3. Treat-Jacobson D, McDermott MM, Beckman JA. Implementation of Supervised Exercise Therapy for Patients With Symptomatic Peripheral Artery Disease *Circulation.* 2019;140:e700–e710. DOI: 10.1161/CIR.0000000000000727

"While many people in our area suffer from treatable blindness, a lack of financial resources often is the major obstacle to these patients being able to get the necessary treatment so they can see and live full lives. That is why I volunteer services through Wy Jo Care. The caring and devoted staff at Wy Jo Care make possible this connection of physician to patient in need."

~ Aaron Florkowski, MD

Ophthalmologist
Sharper Vision Medical/Surgical Eyecare
Supporter, Wy Jo Care and Metro Care

The Kansas City Medical Society Foundation recognizes Aaron Florkowski, MD, for his service as a volunteer physician with Wy Jo Care. A LASIK and cataract surgeon, Dr. Florkowski is a fellow of the American Academy of Ophthalmology as well as the American Society of Cataract and Refractive Surgery. He is a graduate of the University of Missouri-Kansas City School of Medicine and also has studied at the Eye Institute of Kansas City. He gives back to the community through Wy Jo Care, providing much-needed health care for uninsured or underinsured people.

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Overcoming Vaccine Hesitancy: An Opportune Time to Address Health Equity

SUGGESTIONS FOR PHYSICIANS AND HEALTH SYSTEMS TO BUILD TRUST AMONG AFRICAN AMERICAN COMMUNITIES

By Qiana Thomason

The COVID-19 vaccines offer an important opportunity to support and protect those who have been—and stand to be—most harmed by the virus. But vaccines won't protect us unless they are broadly accepted and received. Nationally, it is estimated that 60-70% of population immunity is necessary for us to resume normal activities. Based on this threshold, one might say it is fair to consider receiving the COVID-19 vaccination both as a service to ourselves ***and*** as a community service.

More than 100 million Americans have become fully vaccinated as of May 1. While the pace of vaccine uptake has grown, there's still a gap between the number of people who say they will get vaccinated and the numbers needed to achieve population immunity.

According to the Kaiser Family Foundation, enthusiasm may be reaching a plateau. The share of adults who say they've gotten at least one dose of a vaccine or intend to do so as soon as possible inched up from 61% in March to 64% in April, while the share who want to "wait and see" before getting vaccinated—a group that had been steadily decreasing in size since over several months—remained about the same.[1]

The rationale behind this "wait and see" approach among Black Americans spans concerns about the speed in which the vaccines were developed and their efficacy, along with deep-seated cultural distrust of the vaccine due to historical medical abuses and lived experience with health injustice in medical spaces.

RACIAL INJUSTICE AND DISTRUST FUEL VACCINE HESITANCY

There are far too many historical examples[2] in our country of gross medical abuse toward Black people. In the name of scientific progress, medical pioneers ran experiments and tests without regard for privacy, safety, dignity or consent:

- In the 19th century, Dr. James Marion Sims, widely held as the founder of U.S. gynecology, came to many of his discoveries by experimenting on enslaved women without use of anesthesia.
- The infamous Tuskegee Study of Untreated Syphilis in the Negro Male was a 40-year study that began in 1932 and involved hundreds of Black men without their informed consent. Treatments for syphilis, including penicillin, were intentionally withheld from these men.
- Henrietta Lacks passed away in 1951 from cervical cancer. Samples of her cells were taken during her treatment and were experimented on, reproduced and disseminated without her knowledge or consent.

As painful as the legacy of mistrust is from these historical experiences, Black people are still experiencing discrimination, bias, interpersonal and structural racism in health care today.

These injustices are apparent in the assessment and treatment of pain. A pediatric study in *JAMA Pediatrics*[3] studied nearly a million emergency room visits and found Black children in severe pain from acute appendicitis had just one-fifth the odds of receiving opioid painkillers as white children. A National Academy of Sciences[4] study found one-third of medical students and residents surveyed held the false belief that Black people have a greater tolerance for pain based on a history of enslavement.

A key indicator of racial and ethnic injustice can also be found in pregnancy-related deaths. According to the Centers for Disease Control and Prevention,[5] Black, American Indian and Alaskan Native women are two to three times more likely to die from pregnancy-related causes than white women. Pregnancy-related deaths for Black women with at least a college degree are more than five times that of their white counterparts.

America is now reaping what it has sowed for hundreds of years. Now is a critical time when everyone is needed to do their part in service to self and community. As we begin to more widely distribute the COVID-19 vaccine, we must work to restore and instill a trust in the medical field that transcends acceptance of vaccines, while simultaneously promoting inoculation. A tall order, but one that can be achieved. Those in the fields of medicine—with the support of philanthropic partners—will need to demonstrate an understanding of the

history, current lived experience and stories behind the distrust in order to address vaccine hesitancy successfully.

COMBATING VACCINE EQUITY AND RACIAL DISPARITIES

Physicians and systems can help combat vaccine hesitancy and address systemic racism as a contributing factor to health disparities through the following:

- **Conversations should target distrust.** Conversations with patients will play an important role in restoring and instilling trust, managing expectations, overcoming hesitancy and reinforcing safety protocols. Communicating reassurance through established research and scientific facts will be necessary components to achieve population immunity. Beyond those universal concerns, physicians should also commit to listening and seeking to understand patients fully, and acknowledge that personal experience and medical training may not have prepared them to properly identify bias, discrimination and structural racism in medicine before now.
- **Trusted messengers are essential.** A study from the NAACP and Unidos[6] showed communities of color are twice as likely to trust a messenger of their own racial/ethnic group. Physicians and researchers of color are unique messengers in this vaccination effort. Their perspectives, experience and voices should be centered to translate the science and share facts concerning the vaccine's safety and efficacy and address questions concerning the participation of people of color in COVID-19 vaccine studies. When people are presented with clear, accurate and quality information concerning their choices, we can trust them to choose well.
- **Record race and ethnicity data.** Hospitals, systems and physician practices must commit to collecting, standardizing, measuring and sharing COVID-19 vaccination race and ethnicity data as rigorously as clinical measures. These data are necessary to move past systemic racism and bias, and to inform organizational and governmental decision makers on how to develop culturally responsive interventions and direct resources to ensure equitable distribution and access. Early data examined by the Kaiser Family Foundation[7] show early warning signs about potential racial disparities in access to and uptake of the vaccine. It is obvious that more comprehensive, standardized data across states are vital to monitor and ensure equitable access.
- **Equity-centered engagement.** As high throughput providers, some hospitals have initially received a large share of vaccines. To whom much is given, much is required. Hospitals and systems must pursue equity-centered vaccination strategies with urgency. This includes partnership with federally qualified health centers and public health departments, establishing neighborhood and community-based vaccination sites in partnership with local government and social sector organizations, use of paid and volunteer bilingual staff, and ensuring that informed consent and other patient-facing documents are translated in multiple languages. Further, making vaccines accessible means being able to schedule via phone versus online, and arranging transportation to facilities or community vaccination sites should be considered, perhaps as part of community benefit expenditures among nonprofit hospitals.

MOVING HEALTH FORWARD

If there is a bright side to the challenges we face, it is the opportunity to emerge anew. In 2021 and beyond, our health care ecosystem can build upon the enhanced awareness of injustice illuminated by the pandemic to do more than recover. Medical programs can better prepare students through equity-centered curriculum and equip them to enter the field, identifying and addressing racial injustices in medical practice. Beyond COVID-19, hospitals, systems and physician practices must integrate race, ethnicity and ZIP code data with clinical quality, process and administrative measures—in order to

detect and address bias and structural racism as key performance and quality improvement strategies. Unconscious bias and equity training for all employees should occur annually; application of an equity lens to all policies, practices and procedures should become a part of organizational culture. The time is now to work together to build trust with all patients and improve the health and outcomes of those we serve.

Qiana Thomason is president and CEO of the Health Forward Foundation, which provides leadership, advocacy and resources to eliminate barriers and promote quality health for the uninsured and underserved. Before joining Health Forward in 2020, she was vice president of community health and health equity at Blue Cross and Blue Shield of Kansas City.

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Spearheading Vaccine Education Among African Americans

On a February webinar are Councilwoman Melissa Robinson, left, and Traci Johnson, MD, of Truman Medical Centers.

Kansas City's Black Health Care Coalition and the local chapter of the National Medical Association have been working to educate African Americans in Kansas City about the science behind the COVID-19 vaccines and their safety.

Earlier this year, they held weekly Facebook live sessions around the theme, "Is the Science Safe?" Speakers have included local members of the National Medical Association, which represents African American physicians, along with various local and national experts.

The effort is led by Melissa Robinson, who is executive director of the BHCC and serves on the City Council of Kansas City representing the Third District. The Black Health Care Coalition is a 30-year-old nonprofit organization dedicated to eradicating health disparities in the Kansas City area.

Among the local physicians appearing on the webinars have been Leslie Fields, MD; Jasper Fullard, MD; Karla Houston Gray, MD; Traci Johnson, MD; Nevada Lee, MD; and Michael Weaver, MD.

Addressing COVID-19 Using Community-Engaged Approaches in Vulnerable Kansas City, Mo. Communities

UMKC RESEARCHERS GAIN FEDERAL GRANT TO PARTNER WITH AFRICAN AMERICAN CHURCHES AND MOSQUES TO INCREASE ACCESS TO AND RECEIPT OF COVID-19 INFORMATION, TESTING AND LINKAGE-TO-CARE-SERVICES

By **Jannette Berkley-Patton, PhD**; Carole Bowe Thompson; Tacia Burgin; Rev. Eric Williams; Pastor Cassandra Wainright; Frank Thompson, MS; Bridgette Jones, MD; Mary Anne Jackson, MD

The topic of coronavirus and health equity has gained increasing attention as SARS CoV-2 has now infected more than 24 million Americans and caused over 550,000 deaths.[1] While new infections have drastically declined in early 2021, and the U.S. COVID-19 vaccine program has drastically ramped up, COVID-19 disparities persist among people of color across the country.[1,2]

Public tracking to provide a racial/ethnic breakdown of COVID-19 cases nationwide was called for early in the pandemic. However, it was not until the summer of 2020 that available data confirmed that African American and Hispanic persons in the U.S. were three times more likely to be infected, were four times more likely to be hospitalized, and were nearly twice as likely to die compared to white Americans due to COVID-19, as reported by the CDC.[2] Even in more recent CDC reports, African Americans and Hispanics continue to be disproportionately burdened by higher rates of COVID-19 infections, hospitalizations and deaths.[3]

Early in the pandemic within the state of Missouri—where 16% of the state population is African American or Hispanic—infections were confirmed in 40% of these groups, as reported by the Missouri Department of Health and Senior Services.[4] In Kansas City, Mo. (KCMO), African Americans accounted for 37% of COVID cases compared to white Americans (22%), and also have had three times higher COVID-19 related death rates, as tracked by the KCMO Health Department (KCMOHD).[5,6]

African Americans and Hispanics continue to be disproportionately burdened by higher rates of COVID-19 infections, hospitalizations and deaths.[3]

THE IMPACT OF SOCIAL DETERMINANTS ON COVID-19 COMMUNITY VULNERABILITY

Studies have shown that in most major cities, including KCMO, one's ZIP code can predict a significantly lower life expectancy. KCMO data from 2016-2019 demonstrate an 18.6-year difference from the lowest life expectancy ZIP codes to the highest.[7,8] In KCMO's Third Council District, which is 60% African American and includes four of KCMO's six lowest life expectancy ZIP codes, the life expectancy is the lowest among all KCMO council districts. Early in the local pandemic outbreak, the Third Council District had some of the ZIP codes with the highest number of reported COVID-19 cases. African American residents accounted for 43% of hospitalizations in this district while Hispanics accounted for 20%.[5,6]

Although higher rates of underlying conditions associated with poor COVID-19 outcomes, such as hypertension, diabetes and obesity, are disproportionately found in African American populations, the root of the disparities links just as closely to factors associated with employment and housing.[9] These factors include the need to leave home to work, live in a crowded, often multi-generational home, use public transportation, and enter crowded workplaces where social distancing and personal protective equipment (PPE) have not been widely available. People of color, particularly African Americans, are also overrepresented in lower-wage jobs such as childcare and home health care. This not only places them at higher risk of exposure to the virus, but also places them in positions of financial instability.[10]

Having such a financial inequity inhibits many families from being able to

respond to immediate COVID-19 needs for social distancing, stocking up on face masks and securing childcare at home during school shutdowns. Moreover, predominantly African American communities continue to be impacted by the legacy of discriminatory institutional practices, such as redlining, racial profiling, underfunded schools, lack of economic opportunity and limited/poor quality health care.[11] During the pandemic, Kansas City Mayor Quinton Lucas was quoted as saying, "Systemic racism doesn't just evidence itself in the criminal justice system." He called out its impact, adding, "Frankly, people deserve an equal opportunity to live, to get health care, to get [COVID-19] testing, [and] to get tracing."[12] COVID-19 has further highlighted these inequitable practices.

Photo: Calvary Community Outreach Network and Clergy Response Network.

The Clergy Response Network, partner organization in *Faithful Response,* last year distributed over 30,000 masks donated by Truman Medical Centers and Saint Luke's Health System in a precursor activity to the current grant. Rev. Eric Williams, co-author of this paper, is pictured at the lectern.

THE NEED FOR CULTURALLY APPROPRIATE STRATEGIES AND MESSAGING FROM TRUSTED COMMUNITY INFLUENCERS

Now, as the COVID-19 vaccine era has begun, vaccine access and vaccine hesitancy are two factors that must be addressed in order to provide equitable opportunity for benefit of COVID-19 vaccines.[13] Communication strategies that can be implemented with community influencers are critical to ensure trust in health systems among African American populations, which initially had some of the highest levels of vaccine hesitancy.[14] It is clear that there is much work to do in developing culturally appropriate strategies and messaging, while building partnerships to ensure the delivery of trusted accurate information and equitable distribution of and access to COVID-19 testing and vaccination services.

The Black Coalition against COVID-19 (comprised of the National Medical Association, National Black Nurses Association and Historically Black Colleges/Universities) wrote a "love letter" to the African American community to encourage not only COVID-19 safety precautions, but also to encourage receiving the vaccine.[15] To appropriately address valid concerns with African American communities—which center on historic and current inequities and discriminatory practices within health care systems—there is a critical need for community collaborations focused on developing and delivering culturally appropriate messaging while also increasing access to COVID-19 testing, vaccinations, PPE and other health needs.

THE CLERGY RESPONSE NETWORK: MOBILIZING KC FAITH ORGANIZATIONS TO ADDRESS COVID-19 AND OTHER HEALTH DISPARITIES

African American faith-based organizations began much of this work early in the pandemic in collaboration with health and academic partners. A prime example of this work can be found with the Clergy Response Network (CRN), an interfaith collaborative that is mobilizing faith-based institutions to build a healthy urban Kansas City community through education, advocacy and partnership development. CRN's membership includes churches, mosques, community-based organizations, health institutions and academic organizations.

Rev. Eric Williams, pastor of Calvary Temple Baptist Church, founded the CRN when it became clear that KCMO's African American community was being hit hard with disproportionate rates of COVID-19 cases, hospitalizations and deaths, and was in dire need of COVID-19 information, services and testing. Key CRN community change strategies include:

- Reducing the negative effects of COVID-19 along with violence and trauma that have disproportionately impacted the urban community;
- Advocating for changes to racist systems,

laws and organizational attitudes related to COVID-19, violence and trauma; and
- Building cooperative networks with neighborhood, health and faith-based organizations.

On May 28, 2020, the CRN held one of the first forums (virtually) for KCMO's African American faith community to provide information about COVID-19 and its impact on the community, and to answer questions about closures of worship settings and alternative strategies to hold worship services. One of the overarching goals of the forum was to show solidarity within the inter-faith community and demonstrate the power of acting together. Over the past year, the CRN has distributed over 60,000 donated masks free-of-charge to churches and mosques, and continues to have large food distribution pop-up events that also provide PPE.[16] In March 2021, the Clergy Response Network in collaboration with the Calvary Community Outreach Network, led an all-day Reaching All God's Children Conference that included presentations on facts about COVID-19 vaccines, mental health and community violence. The presentations were led by experts from the KCMOHD, University of Missouri-Kansas City (UMKC) School of Medicine, mental health professionals and faith leaders from around the area. Overall, these events have positively impacted thousands of people in KC.

A FAITHFUL RESPONSE TO COVID-19: A FAITH-HEALTH-ACADEMIC PARTNERSHIP TO INCREASE COVID-19 TESTING AND LINKAGE TO CARE IN AFRICAN AMERICAN CHURCHES

The early work of the CRN also guided the development of a grant application that was subsequently funded by NIH in January 2021 as a clinical trial called *A Faithful Response to COVID-19* (or simply *Faithful Response*).[17-18] This project is examining religiously and culturally tailored strategies to increase COVID-19 testing and use of linkage-to-care services with members of African American churches and mosques and the community members they serve through outreach ministries (e.g., food pantries, social services). The *Faithful Response* project will also provide COVID-19 testing services to many KCMO African Americans who may otherwise never have an opportunity to get tested in KCMO's socially vulnerable communities.[5] The design of *Faithful Response* was based on ongoing input from the CRN, the KC FAITH Initiative Community Action Board, KCMOHD's communicable disease team, and the UMKC Community Health Research Group's (CHRG) extensive experience in conducting health screening research in partnership with African American churches and the KCMOHD.[19-25]

The *Faithful Response* intervention will first be examined as a pilot study with one church to determine the feasibility of the intervention's virtual components in an era of COVID-19, which takes into consideration that most churches still are not meeting in-person. Feasibility of virtual approaches to participant recruitment, project implementation and data collection will also be examined. Findings from the pilot study will then be used to refine procedures and materials for a larger community-wide randomized community trial. The community trial will include 16 African American churches and mosques which will be randomized to either the religiously tailored *Faithful Response* intervention or a nontailored COVID-19 education intervention group, with about 960 participants total.

In the *Faithful Response* intervention group, faith leaders will be trained to implement the intervention components, which include delivering messages to encourage COVID-19 testing and use of linkage-to-care services. Delivery of the intervention will be supported with a *Faithful Response* Tool Kit, which will include sermon guides, responsive readings, print and video testimonials, church bulletins and many other materials that will help promote COVID-19 testing with participating churches. Also, pastors and imams will encourage their members to get tested and to engage in healthy behaviors that mitigate the spread of COVID-19. These faith leaders will also receive a COVID-19 test in front of their congregants to further motivate their members to get tested. Study participants will receive automated text messages to engage in healthy behaviors and to get tested for COVID-19.

Also, two COVID-19 testing events will be conducted by the KCMOHD at all of the participating churches. Health department contact tracers will be trained to enhance their client-centered communication skills and aid in participants' use of linkage to care services that address basic and health needs (e.g., food, rent and utility assistance; referral to medical care; PPE). The study will take place over two years and has a goal of providing nearly 2,000 congregants and community members with free, accessible COVID-19 testing and linkage to care services, whether or not they are participants in the study. This project demonstrates how faith-health-academic partnerships have potential to jointly design and deliver culturally appropriate messaging, and also provide COVID-19 testing and other related services to increase their reach. Overall, these will have a positive impact with KCMO vulnerable African American communities.

Once again, this collaborative approach is proving to be of even greater need. Recent reports indicate that socially vulnerable communities, particularly those with

This project is examining religiously and culturally tailored strategies to increase COVID-19 testing and use of linkage-to-care services with members of African American churches and mosques and the community members they serve.

large numbers of lower-income and ethnic minority residents, have some of the lowest rates of preventive health screenings during the pandemic.[26-27] They also have some of the lowest rates of vaccine distribution and uptake.[13,14] On March 29, 2021, the CDC reported that data on race/ethnicity was only available for a little over half (53%) of those who have had at least one vaccine shot. Among these persons, 66% were white and 8% were African American.[28] Additionally, on March 31, 2021, the Kaiser Family Foundation report on COVID-19 vaccinations race/ethnicity indicated that 20% of white and only 12% of African Americans in Missouri had been vaccinated.[29] In ZIP codes within KCMO's Third District, vaccinations rates among African Americans range from 4% to 12%. For white Americans in the same ZIP codes, the vaccination rates range from 8% to 22% and for Hispanics rates range from 5% to 32%.[5,6]

CONCLUSION

Borrowing from strategies used in *Faithful Response* with faith-health-academic partnerships to increase COVID-19 testing—and expanding on these strategies to address vaccine distribution—can be an important step to further spur increased vaccine distribution and uptake with African American communities.[30] Mitigating social determinants, such as improving access to not only COVID-19 services but also to other much-needed health prevention services (e.g., blood glucose, mammography and dental screenings) and internet access, will best be achieved when community leaders, health care professionals, public health and city officials, and academic researchers work together to address these issues. This is the time for action and for building partnerships that include community organizations as expert partners. Together, these partnerships will forge future plans to stop pandemics like COVID-19 from having such disproportionate, destructive impacts on socially vulnerable communities of color.

ACKNOWLEDGEMENTS

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(*continued on pg. 30)*

Why Fixing the Digital Divide in Kansas City Is Important to Public Health

ONE-FOURTH OF KANSAS CITIANS LACK BROADBAND INTERNET AT HOME, RESTRICTING THEIR ACCESS TO VIRTUAL HEALTH CARE, HEALTH INFORMATION AND ECONOMIC OPPORTUNITY

By McClain Bryant Macklin, JD, MBA

Federal telehealth provisions will likely continue into 2021 and beyond, as they make quality health care more accessible to patients and cost effective for providers.

The digital divide is considered a "super determinant of health" because of its impact on a person's ability to access critical resources like education, economic mobility, workforce opportunities and health care.

Despite all the hardships that COVID-19 has brought us, the pandemic has a silver lining—the digital divide is now getting the long overdue attention it deserves.

The digital divide is the gap between the under-resourced members of society who do not have computers, high-speed internet and literacy that the more affluent members of society do.

The COVID-19 era has highlighted the fact that broadband internet is an essential need for a community's well-being, similar to electricity and plumbing. That's because the pandemic has caused a greater need to operate remotely using technology, which has made the divide more of a chasm.

Students who can learn from home continue to progress in their education while those who cannot have fallen even further behind. Access to technology also separates those who have been able to access quality health care in the past several months via telemedicine and those who had limited access to health care while stay-at-home orders were in place.

BROADBAND ACCESS

Despite the rapid advancements in broadband technology, these innovations are not available to everyone. According to the Federal Communications Commission, U.S. households making $25,000 or less have a broadband adoption rate of 47%, while those making more than $100,000 have an adoption rate of 92%.

The KC Digital Inclusion Coalition reports that 25% of Kansas Citians do not have broadband access at home. It also reports that of those who do not use the internet at home, 46% are African American and 42% make less than $25,000 per year.

Broadband infrastructure has not been constructed in many rural and lower-income communities. According to the Federal Reserve Bank, laying glass fiber costs $10,000 to $30,000 per mile—a cost many private internet service providers struggle to justify in areas of low population density or low internet adoption rate.

Low-income earners must decide which needs are a family priority. Internet connectivity is often deprioritized after food, water, electricity and gas.

"We, as a country, need to determine digital equity is a priority and then act on it. The stakes are high. For individuals, for our communities and for our country," said Angela Siefer, executive director of the National Digital Inclusion Alliance, of which Kansas City is a founding member.

IMPACT OF COVID-19 PANDEMIC

The pandemic has expedited the transition to a digital economy. The interplay of the pandemic and the virtual economy—increased reliance on remote work, virtual learning and telehealth—has hit hardest among individuals and families who are on the wrong side of the digital divide.

"Kansas City is ranked as the No. 1 city in the U.S. for remote work," says Rick Usher, assistant city manager for the City of Kansas City, Mo., and member of the KC Digital Inclusion Coalition steering committee. "We have a highly competitive market for internet service providers and nearly ubiquitous availability of high-speed internet. Yet, many families in low-income households cannot afford internet services and are therefore left in the digital divide, unable to compete in the virtual economy and struggling to survive during the pandemic."

In a post-COVID world, the chasm between the digital haves and have-nots could widen.

People with lower incomes in both rural and urban communities, and people of color, report poorer health even in ordinary times due to a variety of socioeconomic and environmental factors. These factors are far more challenging in the COVID-19 environment. Telehealth provides an opportunity for these individuals to access quality care and improve their health outcomes, but this opportunity cannot

The interplay of the pandemic and the virtual economy—increased reliance on remote work, virtual learning and telehealth—has hit hardest among individuals and families who are on the wrong side of the digital divide.

be realized without these individuals also having access to broadband.

TELEHEALTH

During the COVID-19 crisis, the White House and the Centers for Medicare and Medicaid Services increased flexibility for the provision of telehealth to allow doctors to provide diagnosis, remote patient monitoring and other health care services without having to physically see patients.

Physicians and specialists have been able to continue earning a living, and hospitals have been able to continue earning revenue by providing care to patients virtually, including residents of low-income and remote areas. Physicians and nurses can gain insight into a patient's condition and environment to ensure adequate supply and reduce medication interactions through virtual visits. Additionally, the provider can see if patients have difficulty navigating their home environment, or if they have visible symptoms that indicate necessary adjustments to medication or diet.

Patients have benefited by being able to meet with doctors without having to leave the safety and comfort of their homes or take time off from work. Many patients have also had remote access to specialists during the pandemic that they would not have had otherwise, due to an under-representation of specialists in rural and urban safety net health care arenas.

Telehealth usually requires a high-speed internet connection that many low-income, rural residents and hospitals do not have; however, some telehealth services are available via audio. According to a 2020 University of Pennsylvania study, people from ZIP codes with a median household income below $50,000 were half as likely to use video to see the doctor when compared with ZIP codes with a median income above $100,000.

Through telehealth, hospitals can provide and patients can receive real-time quality care at a fraction of the cost of an in-person visit. By leveraging telemedicine through in-home care, outsourced diagnostics analytics and remote specialist consultations, hospitals can service patients at lower cost, save time and receive the care they need much faster.

Yet, rural hospitals report that the primary barrier to providing remote care is broadband access. Patient access to rural hospitals is already a challenge due to recent closures and the limited number of hospitals in rural communities.

Federal telehealth provisions will likely continue into 2021 and beyond, as they make quality health care more accessible to patients and cost effective for providers. CMS is considering rules to effectuate a White House executive order calling for flexibilities around telehealth to continue after the pandemic.

But telehealth and the efficiencies it affords to providers and underserved patients are of no benefit if hospitals in rural and urban areas lack the connectivity needed to use it.

REGIONAL EFFORTS

Locally, there are efforts underway to narrow the digital divide. The KC Digital Inclusion Coalition—made up of municipalities, libraries, foundations, internet service providers and nonprofits—leads this work and is a thought leader on localized solutions.

Health Forward Foundation, along with several other area foundations and civic organizations, awarded a grant to the SchoolSmartKC technology fund to help close the equipment divide for low-income K-12 families in the Kansas City area who do not have a computer at home. These computers can also be used by the family to access telehealth and other critical services at home.

The Kansas City Regional COVID-19 Response and Recovery Fund, for which Health Forward Foundation participates on the advisory board, last year awarded over $875,000 toward digital equity initiatives aimed at closing digital equipment, accessibility and literacy gaps in the Kansas City region.

On the state level, both Kansas and Missouri dedicated around $50 million each to improve broadband access. The funding will be allocated in the form of vouchers that will make high-speed internet more affordable for families, for infrastructure projects, and to provide connectivity to schools, libraries, hospitals and other anchor institutions.

Broadband access is necessary to succeed in the 21st century economy. As long as the digital divide exists, we will be unable to maximize our individual or collective economic potential. In a highly digital world—where jobs are posted

online, most learning opportunities are offered online, and most other services and social interactions are also online—digital connectivity and capabilities are necessary to compete.

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Truman Medical Centers/University Health Conducts Vaccine Outreach in Underserved Communities

A patient receives the COVID-19 vaccine at the Tony Aguirre Community Center. (Photo: Truman Medical Centers)

On an unusually warm day in March, handfuls of Kansas Citians come in and out of the Tony Aguirre Community Center. The Community Health Strategies and Innovations team at Truman Medical Centers/University Health (TMC/UH) turned the Westside community center into a COVID-19 vaccination site.

It is one of the many sites throughout Kansas City where TMC/UH has brought the vaccine to people who may have faced barriers navigating the medical center's on-campus vaccination process. Since December, TMC/UH has administered more than 100,000 doses of the vaccine at its two hospital locations, local schools and businesses, as well as this community outreach.

At Tony Aguirre, grateful recipients filled out paperwork in the sun, lingering for just a moment before heading inside to get a second dose of the Moderna COVID-19 vaccine. The vaccination event was a reunion of sorts, for mostly Hispanic vaccine recipients, from a traditionally close knit west side community. Friends, separated by social distancing, were able to chat. Recipients once again met with the trusted, and bilingual, TMC/UH team that for over a year has been offering COVID-19 education and testing in pockets of Kansas City, Mo., that have been hit hardest by the pandemic. And now, thankfully, the team is able to offer vaccines.

"If the team says it's going to be there, it's going to be there with a level of expertise and high standards, because the community deserves it," said Niki Lee Donawa, Community Relations Director at TMC/UH. Donawa has overseen the community-based team for nearly a decade. She says the relationships the team cultivated with community partners through programs like the Healthy Harvest Mobile Market—which brings fresh produce to sell in food deserts—has allowed for a seamless vaccine rollout.

"It becomes very personal with the individuals," she said. "People like it when you meet them in their own backyard and treat them with dignity and respect."

COMMUNITY PARTNERSHIPS

That trust and partnership means the vaccine is getting to the people who need it most. The Community Health Strategies and Innovations team relies on its community partners to identify recipients. So, for example, when a month earlier, it was icy and bitterly cold on the day the team was scheduled to administer the first dose of vaccine, partners were able to check in with recipients and ensure they arrived safely.

Other sites where the Community Health Strategies and Innovations team has vaccinated eligible Missourians include St. James United Methodist Church, Friendship Baptist Church, Morning Star Missionary Baptist Church, the Linwood YMCA (where TMC/UH has a clinic), Della Lamb Community Services, the Mexican Consulate and the Delta Sigma Theta Athenaeum.

In addition, Donawa has worked with the Ride KC and the KC Housing Authority to create the Care Connect program, which will ensure transportation isn't a barrier to vaccination.

Ultimately, removing barriers to health and wellness is the Community Health Strategies and Innovations team's goal.

Donawa is hopeful that the connections made during the pandemic encourage Kansas Citians who are often left behind to take control of their health, and create a legacy of wellness for the next generation.

The above article was prepared by Truman Medical Centers/University Health.

Case Study: Primary Synovial Chondromatosis

A RADIOLOGY PERSPECTIVE

By Dennis Heaton, DO, and Nebiyu Beteselassie, MD

ABSTRACT

Primary synovial chondromatosis is a rare benign neoplastic proliferation of cartilaginous bodies in the synovium of joints, bursa and tendon sheaths, and rarely, ligaments.[1] The knee is the most common joint affected, with involvement of the elbow joint much less common. The differential diagnosis for primary synovial chondromatosis is broad, and sequela of delayed diagnosis or misdiagnosis can be detrimental to patient outcome. We present a case of delayed diagnosis of primary synovial chondromatosis of the elbow with secondary osteoarthritis and rad-path correlation.

INTRODUCTION

Primary synovial chondromatosis is a rare, benign neoplastic proliferation of cartilaginous bodies in the synovium of joints, bursa and tendon sheaths, and rarely, ligaments.[1] In contrast, secondary synovial chondromatosis is the result of joint abnormality from prior injury or osteoarthrosis.[2,3] The knee is the most common joint affected followed by the hip.[4] The elbow is less commonly affected. Primary synovial chondromatosis may be asymptomatic, but it can present with joint pain, swelling, diminished range of motion and nerve compression in more severe cases.[3] The disease process has been described as a spectrum with the most severe cases resulting in secondary osteoarthritis due to joint damage from multiple intra-articular loose bodies.[5] Initial treatment is conservative, including analgesics and physical therapy. Surgical treatment is reserved for severe cases, and may include removal of loose bodies and synovectomy. The differential diagnosis for primary synovial chondromatosis is broad and includes secondary synovial chondromatosis, infection, trauma, crystal deposition disease, inflammatory osteoarthropathies and chondrosarcoma.[3,6,7,8] We present a case of primary synovial chondromatosis of the elbow in a 41-year-old male with imaging findings that were discordant to the degree of symptoms and disease with rad-path correlation.

CASE

A 41-year-old right-hand-dominant male presented for evaluation of worsening non-dominant elbow pain that started one year prior to presentation without a known inciting event. Radiographs obtained at initial presentation were interpreted as normal. He was treated conservatively with physical therapy and over-the-counter analgesics for pain control. His symptoms progressed over several years, and he returned with significantly reduced range of motion and worsening pain. On a return visit evaluation he had 90 degrees of flexion and lacked 30 degrees of full extension. An MRI without contrast was obtained demonstrating small osteophyte formations at the coronoid and olecranon processes, a small joint effusion, and low level signal intensity foci suggestive of synovitis. Subsequent non-contrast CT demonstrated extensive osseous spurring and irregular periosteal reaction suggestive of prior trauma or infection with additional partially calcified loose bodies in the anterior elbow. An arthroscopic synovectomy, along with removal of loose bodies and removal of bone spurs, was performed. Surgical specimens were sent to pathology for further evaluation. The final pathologic diagnosis was consistent with primary synovial chondromatosis, secondary osteocartilaginous loose bodies and osteoarthritis. Post-operatively the patient's range of motion and pain improved.

DISCUSSION

Primary synovial chondromatosis is a rare benign neoplastic condition characterized by the proliferation of chondroid nodules within the synovium, and more rarely the bursa, tendons and ligaments surrounding articular joints.[1] The disease process is often insidious with slow progression of symptoms including decreased range of motion, pain, nerve compression, and rarely muscle atrophy.[1] Primary synovial chondromatosis has been described to occur in multiple phases with secondary joint damage associated with multiple loose bodies and more severe synovitis occurring later.[3,5] Characteristic imaging findings include multiple evenly distributed intra-articular calcifications with a ring and arc pattern, juxta-articular osteopenia on radiographs and CT, and areas of low signal intensity and iso to hypointense T1 lobulated lesions corresponding with partially calcified loose bodies on MRI.[2,3,6,7] Additional MRI findings include

Figure 1: Multiple sequential lateral radiographs of the elbow starting in 2016 (A), 2019 (B), and 2020 (C). Increasing arthrosis of the elbow with marginal osteophytes and loose bodies indicated by the blue arrows.

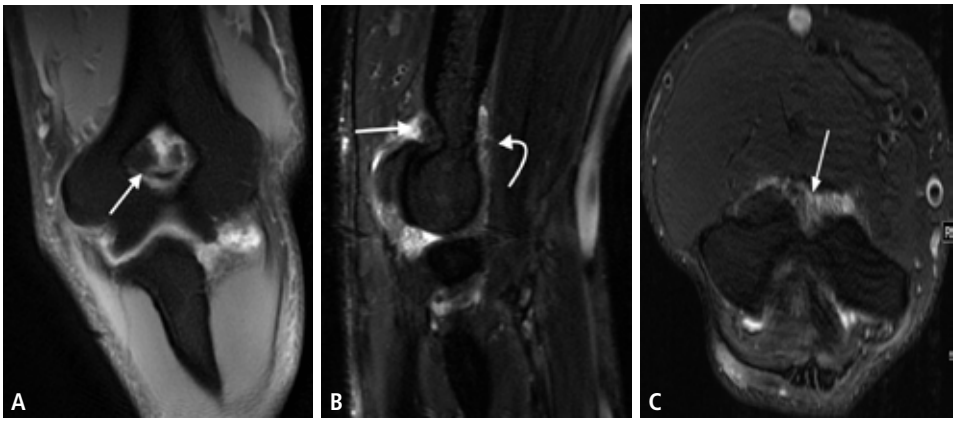

Figure 2: Coronal, sagittal, and axial proton density MR sequences demonstrating multiple intra-articular loose bodies, a small joint effusion, and finger like projections of the synovium suggesting synovitis.

synovial thickening, conglomeration of loose bodies and extrinsic osseous erosions.[2] Despite these characteristic findings, many patients will have normal radiographic or CT imaging, particularly if the disease is not severe enough to result in joint destruction or osseous erosion.[3] If clinical suspicion is high, MRI is more sensitive for the detection of loose bodies and osseous erosions, as well as synovial thickening.[2,3,6,7] Given the insidious onset, a high index of suspicion must be present to diagnose this condition early. The case presented did not have a final diagnosis of synovial chondromatosis until several years after the initial presentation. At the time of diagnosis the patient had already suffered secondary joint damage and osteoarthritis. The most serious condition to potentially arise from primary synovial chondromatosis is chondrosarcoma. While the pathogenesis of chondrosarcoma in patients with primary synovial chondromatosis is not completely understood, de novo development of extraskeletal chondrosarcoma is exceedingly rare.[9] Differentiating low-grade chondrosarcoma from synovial chondromatosis on imaging and histologically can be difficult; however, the expression of BCL2 is more common in synovial chondromatosis, and extension of disease beyond the joint capsule is an imaging feature of chondrosarcoma.[3,9] Patients with findings suggestive of synovial chondromatosis should be approached with caution as incomplete resection of a low-grade chondrosarcoma may result in both discordant diagnosis and higher-grade disease on later presentation.

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Ethical Pain Control in the Elective Surgical Patient

EFFECTIVE USE OF ANESTHESIA, COUPLED WITH EDUCATION AND NON-OPIOID PAIN MEDICATION, CAN UTILIZE THE BODY'S ENDOGENOUS ENDORPHIN SYSTEM

By Armand Edalati, BA

Commonly accepted medical ethics include principles like beneficence and non-maleficence, respectively, to provide patients with the greatest benefit and to do no harm. Adherence to these principles assists in accomplishing the goals of the physician, chiefly therapeutic results and patient satisfaction.[1]

In the treatment of pain, previously it was supported nationally and by popular publications, i.e., *The New England Journal of Medicine,* that opioids could be used to manage pain with minimal risks for the patient including addiction.[2] It is ethical to reduce pain and suffering for the patient in this scenario where harm is absent and there is a clear benefit.

Sustained population use of opioids resulted in the realization of harm related to treatment, an opioid epidemic ensued, and there is currently a shift away from opioids. Death rates from opioids were reduced with the efforts of the health care system to reduce opioid prescriptions for the patient population.[3] Ethically, the patient's pain is still important to control, but now it is understood that opioids are not risk-free and there is a systemic effect related to opioid prescriptions. The treatment of patients' pain is still guided ethically to maximize benefit and reduce harm for the patient.

Complexity arises in the setting of an elective procedure, where the suffering is a result of the operation and there is a greater implied responsibility to alleviate suffering. Furthermore, the importance of the patient's satisfaction increases for the elective procedures due to obvious economic repercussions. In this case, there is potentially greater pressure on the physician to control pain, but ethically there are still the same driving forces for treatment of pain. The physician needs to provide effective pain control but is hindered by legitimate caution of the unfavorable associations of opioid narcotics.

MECHANISM OF OPIOID PAIN CONTROL

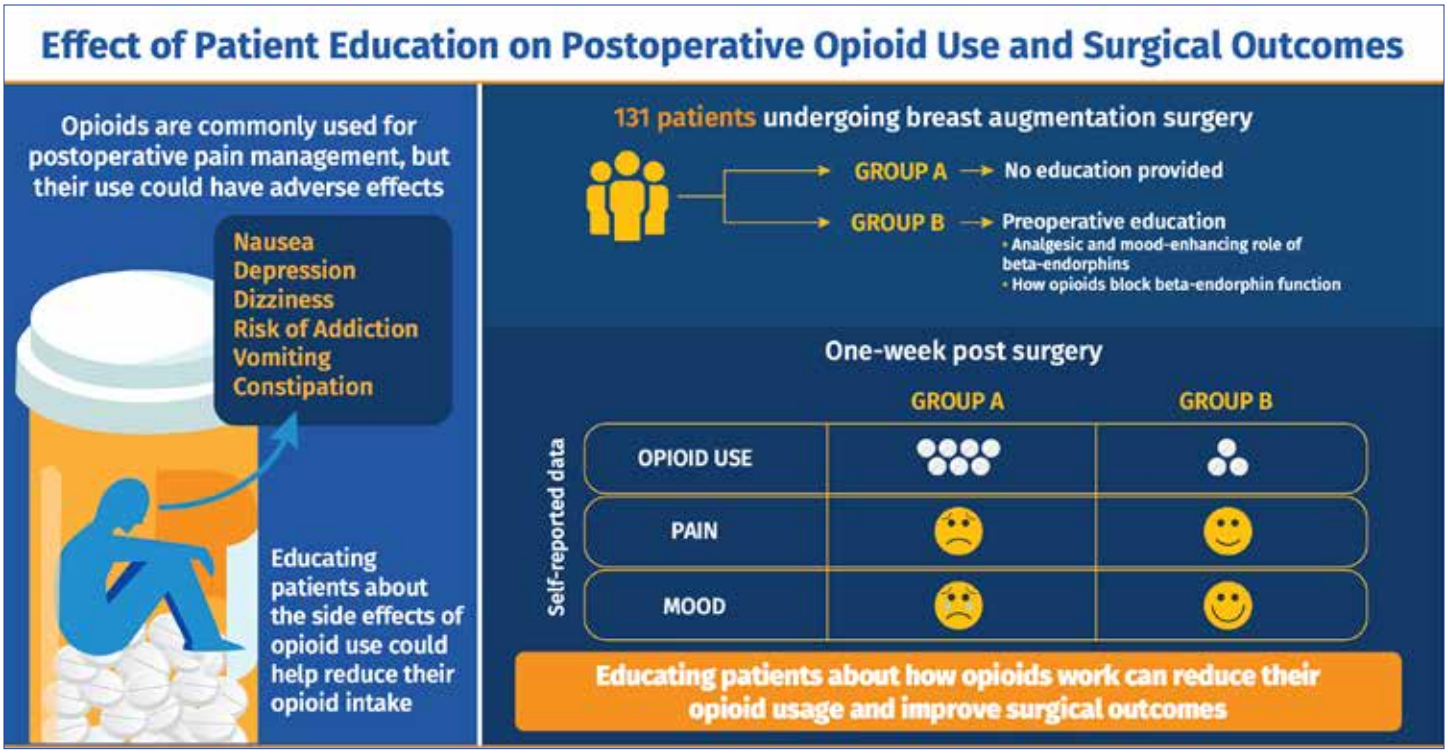
The opioid drug class acts to control pain, but these drugs are not harm-free. They carry side effects which often require additional pharmacological treatment as well as an association to an increased duration of hospital stays and morbidity.[2] The mechanism of pain control for opioids is through their effect in the peripheral nervous system (PNS) and central nervous system (CNS).[3] Throughout the PNS at the peripheral sensory nerve fibers, primary afferent neurons, and in the central conjunction via the dorsal root ganglion, opioids act at the pre- and post-synaptic nerve terminals by disinhibition of gamma-amino butyric acid (GABA) to reduce the release of pain-signaling kinin proteins.[4] In the CNS at the spinal cord through pre-synaptic GABA disinhibition, there is a reduction in pain signaling, resulting in decreased transmission to the brain.[3] In practice, there is a great variety of ways opioids are utilized for pain control, following these described mechanisms for local and systemic control.

However, due to the unfavorable effects and push against opioids, there is a need to consider adjuvant agents to reduce the use of opioids. The mechanism of opioids indicates that the efficacy is most likely centered on its ability to modulate pain in the transmission of the pain signals, especially within the spinal cord. Logically considering alternative agents would need to compensate for pain control in the setting of reduced opioid dosing. This goal can be accomplished by utilizing drugs that operate by similar mechanisms, but agents of alternative mechanisms must not be discounted.

COX INHIBITORS

The current mainstay of therapy is cyclooxygenase enzyme (COX) inhibiting drugs which are composed of NSAIDs and acetaminophen; both have demonstrated efficacy in the reduction of postoperative use of opioids. NSAIDs act by non-selectively inhibiting COX-1 and COX-2; this blocks prostaglandin synthesis, peripherally reducing local pain signal formation and reducing inflammation at the surgical site. The adverse effect of this non-selective inhibition of COX is increased bleeding risks due to the reduction of prostaglandins (COX-1), which maintain the gastric mucosa as well as an anti-thrombotic state from the reduction of thromboxane formation (COX-2).

The exception to this is celecoxib,



Source: Parsa et al. 2009, Plastic and Reconstructive Surgery.

which was designed to specifically target the COX-2 isoform. As a result, the body has relatively elevated rates of thromboxane versus prostaglandin formation, leading to increased rates of thromboembolic events, e.g., stroke and myocardial infarction.[3] Whereas, acetaminophen blocks a different isoform of COX that is located primarily within the CNS. Consequently, it lacks the adverse effects of NSAIDs on the cardiovascular, gastrointestinal and renal systems.

GABAPENTIN

An additional ancillary agent of interest reviewed and employed by Stephan and Parsa 3 is gabapentin, a safe well-studied drug widely used off-label for the treatment of pain. The currently understood mechanism of pain control is through modulation of signal transmission centrally through effects on the dorsal root ganglion as well as on serotonergic systems in the spinal cord.[3,5] Through this mechanism, gabapentin is providing pain relief similar to the replaced opioid, which should in theory result in improvement of pain.

A prospective study demonstrating the effectiveness of gabapentin in the surgical setting by Parsa et al.[6] studied the effects of preoperative use of celecoxib alone versus the addition of gabapentin on post-operative pain for patients undergoing bilateral sub-pectoral breast augmentation. The results are demonstrated in the combined group with the preoperative treatment of both celecoxib and gabapentin, a reduced pain rating, and reduced Vicodin use in the post-operative period. The patients who did not use Vicodin experienced lower levels of pain compared to those who did 4.2% in the combined group and 18.2% in the celecoxib group.[6]

Interestingly, opioids should reduce pain and therefore eliminate the need for further use of the drug; but in this study, patients who used opioids were more likely to have more pain in need of control and need more drugs to treat the pain. This finding indicates the presence of additional factors that require consideration in the process of managing surgical pain.

ENDOGENOUS ENDORPHIN SYSTEM

Opioids, as discussed previously, modulate pain primarily via the μ-opioid receptors, but what was not discussed was the endogenous endorphin system that utilizes those opioid receptors. The system relies on a hypothalamic-pituitary axis (HPA); stress is managed by the hypothalamic secretion of corticotrophin-releasing hormone (CRH), which stimulates the anterior pituitary to release proopiomelanocortin (POMC). That multimeric protein is then cleaved to α-melanocyte-stimulating factor (MSH), β-endorphin and adrenocorticotropin (ACTH). These act to protect the body from the perceived stress. As the system operates on an HPA, there is feedback inhibition from elevated breakdown products of the POMC.

The β-endorphins work like exogenous opioids, which were previously explained through GABA disinhibition and blockage of pain signals and tachykinins peripherally as well as centrally and in the spinal cord. In the CNS, there is a high density of receptors related to the structures of the descending pain control circuitry at the locations of descending pain control circuits amygdala, mesencephalic reticular formation, periaqueductal grey matter and rostral ventral medulla.[4]

Additionally, the GABA disinhibition results in the increased presence of dopamine in the reward centers of the brain, which is associated with feelings of euphoria and well-being. The endogenous system is advantageous during a response to stress, as it keeps the body active in responding to the stress.

EXOGENOUS OPIOIDS

However, in the setting of exogenous opioids, there is pain control and reward system dopamine saturation, as well as negative feedback of the β-endorphin, producing stress response HPA. This consequently manifests in two ways: with the disruption of β-endorphin's endogenous pain modulation and the pro-dopaminergic effects. Therefore, the drug takes over the role of pain control, and it is required for continued modulation. Less dopamine saturation without the exogenous opioid's presence results in feeling the opposite of well-being, i.e., dysphoria. These produce a reliance on the exogenous opioids for pain control as well as maintenance of the indirect dopaminergic stimulation.[2,3]

Additionally, tolerance builds to the exogenous opioids through changes in μ-receptor density, voltage-gated channel uncoupling and anti-opioid peptides.[4] This necessitates directly an increased requirement of drug to stimulate the μ-receptors, but there is also tolerance built from the saturation of the dopaminergic system, which then requires more drug for increased indirect dopamine stimulation. Furthermore, as a result of these neuronal adaptations, there is the possible development of hyperalgesia and allodynia, from sensitization of the pain pathways.[2,4]

The importance of adequate pain control through maintenance of the β-endorphin system is supported by expert plastic surgical opinion[3] with decades of experience and literature validation. Following their formulated guideline,[3] it is first important to educate patients on the logical purpose for the elimination of opioids. Second, local anesthetics are strongly recommended during the preoperative and intraoperative period. Third, preoperative use of gabapentin and celecoxib are suggested for reduction of pain in the post-operative period. Then, finally as discussed earlier, a strong recommendation is made for the avoidance of opioids perioperatively to maintain the endogenous pain modulation by β-endorphins. The result associated with following these expert guidelines is patients without opioid side effects, who suffer less and have a greater sense of well-being in the post-operative period.

The Parsa et al[7] data supports the current understanding of the endogenous β-endorphin system, as the patients with the increased use of opioids experienced more pain and required more drugs. This illustrates a way forward in the improvement of pain control in the surgical patient by reduction of opioids by changing the operative anesthesia and post-operative pain control. Opioid-free anesthesia has numerous indications and is appropriate for a variety of different patients including those with airway compromise, e.g., asthma, obstructive sleep apnea in the setting of morbid obesity, and chronic obstructive pulmonary disease. This in turn reduces side effects associated with opioid anesthesia respiratory depression, such as negative inotropy, constipation, ileus, nausea, vomiting and urinary retention.[2]

MULTIMODAL ANESTHESIA CARE

Additional benefits were found in a study comparing bilateral breast reduction using opioid-free multimodal anesthesia care (MAC) versus traditional general anesthesia with adjunct opioids. Group 1 included a retrospective series of patients that underwent breast reduction via general anesthesia with adjunct opioid use. This series was compared to two prospective groups of patients who did not receive opioids either preoperatively or intraoperatively. Notably, time to discharge postoperatively was reduced, and fewer symptoms occurred from anesthesia that required pharmaceutical intervention in the post-anesthesia care unit (PACU).

The time to discharge postoperatively for general anesthesia with opioid adjuvants was 5:54 hours. For the two opioid-free subgroups: patients with general anesthesia and local anesthetics at 4:11 hours, and those who had MAC consisting of intravenous sedation and local anesthetics at 3:04 hours.[7] In the prospective opioid-free groups, there were fewer opioids used in the PACU compared to the retrospective general anesthesia with opioids (100%); no PACU opioids were used in the intravenous sedation with local group, but 11.1% for those who had general anesthesia with local. Additionally, no patients in the opioid-free groups had unplanned hospitalizations, and there were no PACU anti-emetics required for the MAC group compared to 61.5% for the retrospective general anesthesia group. The author of the study attributed this

difference in PACU opioids in the opioid-free groups to the higher local anesthesia used in the MAC intravenous sedation group (average lidocaine/epinephrine of 7.6 mg/kg) due to direct intraoperative monitoring of patients' reactions to the procedure, compared to 7.0 mg/kg in the general anesthesia group.[7]

The obvious benefits illustrated by the opioid-free group was reduced time to discharge post-operatively and reduced side effects requiring pharmaceuticals.

EFFECT OF PATIENT EDUCATION

However, this data provides an avenue for further exploration of perioperative opioid reduction. Zero PACU opioid use in the intravenous sedation MAC group should not interfere with the endogenous β-endorphin system. A prospective study sought to answer if total opioid reduction with the means previously identified and studied could result in improved surgical outcomes, presumably by preserving the endogenous β-endorphin system. The study evaluated the effect of preoperative patient education on opioid consumption and well-being for patients who underwent breast augmentation. It held features of the previous studies, including preoperative celecoxib and gabapentin as well as MAC opioid-free monitored anesthesia. Those methods were shown previously effective in the reduction of opioids. This study's emphasis, however, was on the effect of patient education by the physician leading up to the day of operation.[8]

For the study two groups, A & B both received the same anesthesia and non-opioid adjuvants, but only group B received education twice leading up to the operation and a handout on the mechanism by which opioids work as well as side effects related to their use. As illustrated in Figure 1, Group B post-operatively relied more heavily on acetaminophen tablets with lower amounts of hydrocodone used for pain control. They experienced statistically significant reductions in pain severity after postoperative day 0, and greater well-being and less depression after postoperative day 2.[8] Group A in the post-operative period had statistically significant increased hydrocodone usage, which interpreted within the context of the β-endorphin system explains the divergence in pain ratings and well-being.

CONCLUSION

As discussed earlier, there is evidence to support the reduction of opioids for safety, but now there is clear evidence for benefit and improvement in the patient's condition related to their pain and well-being through the support of the β-endorphin system. This data reiterates support for viewpoints of previously expressed expert opinion on the reduction of opioids in elective surgical patients by the implementation of opioid-free MAC, greater reliance on local anesthetics, and reduction of opioids, all for the preservation of the β-endorphin system.[3]

Under the ethical considerations for pain control listed at the opening of this paper, it is important to note that through education[8] and non-opioid adjuvants,[6,7,8] tolerating initial temporary discomfort ultimately results in benefit for the patient by avoidance of prescribing opioids and society by reduction of circulation prescribed opioids. Surgeons performing elective procedures guided by the ethical principles of non-malevolence and beneficence should recognize the imperative to ensure that pain is controlled in a manner that is both safe and effective, as supported by data and evidence.

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