



MedStar Health

Connections

May-June 2024

Vol 31, No. 3

News for the medical and dental staff, residents, and fellows at MedStar Washington Hospital Center



Preparing Fellows to Care for the Critically Ill

INSIDE THIS ISSUE

4

Equity, Inclusion,
& Diversity

6

New Medicines
for Alzheimer's
Disease

7

Chronic Pain
Management

10

Radiation Safety –
Protecting Providers,
Patients, and the Public

Connections

Connections magazine is managed and published by Communications & Public Affairs for the medical and dental staff, residents and fellows of MedStar Washington Hospital Center.

Mission—MedStar Washington Hospital Center is dedicated to delivering exceptional, patient-first health care. We provide the region with the highest quality and latest medical advances through excellence in patient care, education, and research.

MedStar Washington Hospital Center, a private, not-for-profit hospital, does not discriminate on grounds of race, religion, color, gender, gender identity, physical handicap, national origin, or sexual preference. Visit the hospital's Web page at MedStarWashington.org.

Gregory J. Argyros, MD, President,
MedStar Washington Hospital Center

Stan Gutkowski, Chair, MedStar Washington
Hospital Center Board of Directors

Kenneth A. Samet, FACHE
President and CEO, MedStar Health

James Jelinek, MD, FACR
Editor

Cheryl Iglesias, MD, FACOG
Associate Editor

Mark Smith, MD, FACEP
Editor Emeritus

Maureen McEvoy
Managing Editor

Design Central Inc.
Graphic Design

Jeffrey S. Dubin, MD, MBA
Senior Vice President, Medical Affairs
& Chief Medical Officer

David Moore, MD
President, Medical & Dental Staff

EDITORIAL BOARD MEMBERS

Ravi Agarwal, DDS
Selena Briggs, MD, PhD, MBA
Chee Chan, MD
Zayd Eldadah, MD, PhD
Navid Homayouni, MD
Kristen Nelson, ACNP, MBA
Adedamola Omogbehin, MD
Stephen Peterson, MD
Sailaja Pindiprolu, MD
Emily Scherer, PA-C
Marc Schlosberg, MD
Oliver Tannous, MD
Christine Trankiem, MD

CE Conferences

REGISTRATION NOW OPEN

D.C. Lung Cancer Conference

October 19, 2024

Grand Hyatt Washington | Washington, D.C.
Course Director: Stephen V. Liu, MD

SAVE THE DATE

MedStar Neuroscience Nursing Conference

October 4, 2024

Bethesda Marriott | Bethesda, MD
Course Director: Jocelin Maxwell MSN, RN, PCCN, GERO-BC

MedStar Health Advances in Urologic Oncology 2024

November 1 to 2, 2024

Bethesda Marriott | Bethesda, MD
Course Directors: Michael Atkins, MD; Keith Kowalczyk, MD;
Roo Krasnow, MD; Mohit Gupta, MD; Michael Carrasquilla, MD

For more information and to stay up to date, please visit
MedStar.Cloud-cme.com

If you have a story idea for *Connections* magazine,
please contact Managing Editor Maureen McEvoy at **202-877-8366**
or maureen.e.mcevoy@medstar.net.



A Look Back Over Our One Team Successes

A constant year after year is our commitment to collaboration so we can provide high quality, safe care, and the best patient experience—a central tenant of our One Team culture that drives the “why” of what we do daily.

At MedStar Washington Hospital Center, I have noticed how you, our Medical and Dental Staff, continue to be flexible, adaptable, and innovative in meeting challenges head-on as you perform at the highest caliber of your clinical knowledge and expertise.

Our collaborative efforts will extend to the 360 new physicians who will be joining us in the upcoming 2025 academic year. They are the interns, residents, and fellows who have entered our Graduate Medical Education program. Being new to an organization has its responsibilities and challenges, which can be overwhelming, and I have full confidence in our senior clinical leadership and attending faculty to teach our trainees what they need to know and encourage them to learn, develop leadership skills, and mature into their roles as vital members of our care teams.

We can all be proud of our accomplishments during Fiscal Year 24, in which you played an integral role. We received our three-year certification after undergoing the Joint Commission survey, and the Stroke Center of Excellence received the 2023 American Heart Association Get

with the Guidelines Stroke Gold Plus Award. Target: Stroke Honor Roll Elite Advanced Therapy Target: Type 2 Diabetes Honor Roll.

U.S. News & World Report named us a “Best Hospital” for Heart & Vascular services, where we tied for the thirty-third spot nationally in Cardiology and Heart & Vascular Surgery and were named the number two “Best Regional Hospital” in the Washington Metro Region. We were high performing in Gastroenterology & GI Surgery, and our Geriatrics programs, and ranked highest in 18 common procedures and conditions.

The Lown Institute Hospitals Index named us the most socially responsible and most racially inclusive hospital in the District, and we were one of 54 U.S. hospitals to earn Honor Roll Status with “A” grades in all top categories: Social Responsibility, Health Equity, Value of Care, and Patient Outcomes.

By thoughtfully managing our resources, we have seen positive developments such as the refreshment of three new breakrooms in the Main OR, Third Floor OR, and Sterile Processing. The Cath Lab and EP vertical waiting areas were refurbished, and work is well underway to renovate the Burn Center. Additionally, last year, the Facilities department managed more than 25,000 work requests as well as the construction repairs recently completed on the Physician Office Building Parking Garage.

Collaboration and communication build stronger teams. We have so much to be proud of, and I thank

our gifted physicians and advanced practice providers for your sacrifice, hard work, and commitment to excellence.

Your dedication and compassion have and continue to play a critical role in how we accomplish improving the health of our organization, our patients, and the communities we serve.

I am grateful for all we have achieved together, and I look forward to seeing the amazing things we will do together as One Team in the next fiscal year.

Thank you again for all you do, and have a happy summer!



A handwritten signature in black ink that reads "Jeff Dubin". The signature is fluid and cursive.

**Jeffrey S. Dubin, MD, MBA,
Sr. Vice President, Medical
Affairs & Chief Medical
Officer.** He can be reached
at **202-877-6038**, or at
jeffrey.s.dubin@medstar.net.

Equity, Inclusion & Diversity (EI&D)

Our physicians shared some of their reflections on their professional and personal experiences around equity, inclusion, and diversity in the workplace



James Street, III, MD, has seen every scenario imaginable unfold in his surgical bays at MedStar Washington Hospital Center. But there is one moment that the medical director for Surgical Critical Care thinks about when it comes to being an inclusive physician: A female trauma patient had arrived at the hospital, stable but unconscious. In his department, Dr. Street's providers are trained to check vitals and then immediately disrobe a patient to make a full assessment, so the interns and medical students have their shears out, ready to cut off the patient's clothes.

And then, Dr. Street told the team to stop what they were doing.

The woman on their table wore a hijab—a loose-fitting garment often worn by women of Islamic faith. Dr. Street recalled a conversation with a Muslim cousin, who had shared an important rule of her faith about men not seeing the female body. "So, I said 'Everybody, stop,'" Dr. Street recalls. "The males are going to step out, let the female

nurses disrobe the patient, and then the female doctors will go in."

Dr. Street's prior knowledge had come from a casual conversation with a family member of a different faith background than the surgeon's—and it made all the difference. "When she regained consciousness, she thanked me for respecting her and her faith. I was able to gain her trust and put her in a comfortable space," he says.

"We have a very diverse patient population," notes Dr. Street, who has been at MedStar Washington for nearly twenty years. "It's important for us to be mindful of those differences, so we can be the best coworkers and best healthcare providers we can possibly be."

"I'm still learning every day—but I don't want the younger interns to take twenty years if there are ways we can start educating them now," he adds.

"We have a very diverse patient population. It's important for us to be mindful of those differences."

— James Street, III, MD

Dr. Street, along with the other physicians quoted in this article, shared some of their reflections in an All-Associate Career Stories Panel discussion, which sought to share professional and personal experiences around equity, inclusion, and diversity in the workplace. The panel was offered as one of a series of similar discussions by MedStar

Washington's Equity, Inclusion, and Diversity Education and Development Subcommittee.



Shikha Kapil, MD, who serves in the Department of Critical Care, knows that striving to truly see and respect patients of different backgrounds isn't only about validation—it can be life or death. She recalls a young nurse in her 30s who self-admitted to another hospital in the region because of a highly elevated heart rate. Despite her medical background, the care team dismissed her concerns, telling her it was simply anxiety. She trusted her own knowledge and transferred to MedStar Washington, where she was treated by Dr. Kapil. "The patient was in chemotherapy-induced heart failure, and required biventricular support and open-heart surgery," Dr. Kapil recalls. Moreover, the intensivist remembers the patient's audible relief when she spoke to a female doctor of color: "Thank you for believing me. It's been such a relief to know I don't have to fight for myself anymore because you're here to fight for me."



John Sherner, who chairs the Department of Medicine, notes that, even with powerful counterexamples like that, MedStar Washington still has room to grow when it comes to ensuring there are no gaps in treatment and service across all populations and socioeconomic backgrounds: "There are still disparities in how our patients are treated compared to how they might be if they were in a more affluent area," he says. "We need to be constantly thinking about how we can improve our level of available services and amenities to improve the patient experience."

One way to do that, say Drs. Sherner and Kapil, is to emphasize the recruitment of providers who are more representative of the hospital's patient populations. "That matters to patients," says Dr. Sherner. "If that's something we can offer, then that's a good goal for us."

"We know that when people have doctors and care providers they can relate to, we offer better care," Dr. Kapil says, noting that the strategy must be two-pronged: encompassing not only safe and validating interactions with patients but also creating accessible diverse pipelines into medical fields. "Once someone sees a familiar face in that role, they, too, can visualize themselves in that role," she adds.

Still, Dr. Kapil notes, that potential disconnect, or lack of familiarity

is not exclusive to the patient experience. For many female and non-white doctors and care providers, there is still a perception gap when it comes to mental models of leadership in medicine. Dr. Kapil says that almost every female colleague she knows has a story about going on rounds and having the patient turn to a male medical student to say, "What's the plan, doctor?"

"I've had to make small modifications," Dr. Kapil says, "like introducing myself with the title 'doctor' three times in the same sentence. The assumption still is that your doctor is a white man."

Dr. Kapil was raised to believe she could be anything she wanted to be—until she got to medical school. "Suddenly, I was part of conversations about which specialties were more suited for women than men," she recalls, noting that she saw no female role models in surgical fields. But that's not the case at MedStar Washington. "We have so many women in leadership—across all fields, in visible signs of leadership," says Dr. Kapil. "It encourages younger generations to go for whatever specialty they want."



Interventional radiologist Keith Horton, MD, calls himself a child of the civil rights era. He grew up in Greensboro, North Carolina, and

"We know that when people have doctors and care providers they can relate to, we offer better care."

- Shikha Kapil, MD

so, as a Black physician of that generation, often found himself both the "first" and the "only" in many spaces: the first Black radiologist in his residency, then in his fellowship and—thirty years ago—the first Black interventional radiologist at MedStar Washington.

"I'd be the only Black person walking the hallways," Dr. Horton recalls of his fellowship days. When attending professional medical conferences, "It wasn't very inclusive, I didn't get invited to dinners or other social events, like my majority colleagues. When I finished my residency, I applied to most of the hospitals in North Carolina; I didn't hear back from a single one."

In part, those memories of isolation and otherness prompted Dr. Horton to be part of numerous pipeline programs over the course of his career. "I mentor because I want to see more people who look like me in this work," Dr. Horton says. "They won't do it unless they see people who look like them."

The payoff of that work was borne out at a recent national conference: "Unlike when I was coming through, everywhere I turned, I saw Black faces," the radiologist recalls. "And most of them knew me because they're the products of the pipelines we have created." And most were receiving invitations to most of the other events of the meeting.

New Medicines For Alzheimer's Disease

Cognitive impairment resulting from Alzheimer's disease, dementia, and other conditions continues to defy a cure. Fortunately, there are new monoclonal antibody medications that can help slow its progression by utilizing the body's immune system to eliminate aggregations of harmful amyloid plaques in the brain.

Lecanemab, also known as Leqembi®, is an anti-amyloid antibody intravenous infusion therapy delivered every two weeks. The drug has received traditional approval from the U.S. Food and Drug Administration (FDA) to treat early Alzheimer's disease, including in those living with mild cognitive impairment (MCI) or mild dementia due to Alzheimer's disease who have confirmation of elevated beta-amyloid in the brain.

"[Lecanemab] is the first treatment that alters the course of the disease, and slows the progression of cognitive decline."

— Marc Schlosberg, MD

"This is the first treatment that alters the course of the disease, and slows the progression of cognitive decline," says MedStar Washington Hospital Center neurologist Marc Schlosberg, MD. Though dependent on what stage treatment begins, Dr. Schlosberg says the medication can slow cognitive decline in patients with mild Alzheimer's disease by 27



Marc Schlosberg, MD
Neurology

percent. "The results for early-stage patients are much higher," he adds.

A second medication, Donanemab, is currently undergoing clinical trials. Phase 3 data reported last summer showed that the drug Donanemab significantly slowed cognitive and functional decline in people living with either mild cognitive impairment or mild dementia symptomatic of early Alzheimer's disease. An FDA committee will meet later this year to evaluate Donanemab's safety and efficiency, after which the agency will make a final decision about approving the medication.

Dr. Schlosberg cautions that while monoclonal antibody medications show promise as a treatment for Alzheimer's- and dementia-related MCI, there remain limitations. Patients who are homozygous for the ApoE4 gene—the highest risk factor for Alzheimer's disease, have a much higher risk for amyloid-related imaging abnormalities

(ARIA), a common side effect of Lecanemab infusions. As such, they require serial imaging to monitor for any signs of inflammation or edema in the brain.

"There's the risk that the medication will trigger an immune reaction affecting amyloids in other parts of the brain, not only those associated with MCI," he explains. "People with baseline cerebral vascular disease are particularly at risk for micro-hemorrhages, which can increase in step with the severity of the disease."

The medication's biggest limitation, Dr. Schlosberg adds, is that it doesn't get at the root cause of Alzheimer's disease and dementia. "The process that causes the amalgamation of amyloids is still there, and they will continue to accumulate," he says.

Appropriate use of the medications can complement lifestyle changes that research has found to help slow the progress of Alzheimer's and dementia. One area is making the most of the brain's natural amyloid-clearing functions during sleep.

"Apnea and other disorders that disrupt sleep can predispose people to Alzheimer's, which makes treating those conditions as early as possible an important step in lowering the risk," Dr. Schlosberg says. Regular exercise, proper diet, and staying socially and intellectually active can help preserve cognitive function as well. "These activities help patients form more dendritic connections in the brain," Dr. Schlosberg says, "providing a reserve in the event they develop amyloid plaque."

Chronic Pain Management

When Malady Santhosh Kodgi, MD, began his general surgery residency in 1995, there was little data available on the role that pain played in stifling a patient's recovery.

"Following a procedure, a doctor might say, 'They've had surgery, they should be able to walk with minimal pain!'" explains Dr. Kodgi, a senior attending physician at MedStar Washington Hospital Center. "There was a lack of rigorous studies detailing the relationship between adequate pain management and post-operative outcomes. We now know that when pain is well controlled, outcomes are better overall: better functionality, better nutritional intake, better mood, better social interactions, rehabilitation is quicker, and the list goes on.

For the past twenty-four years, Dr. Kodgi has become MedStar Washington's resident expert on pain management, serving as the program director for that subspecialty within the Department of Anesthesia.

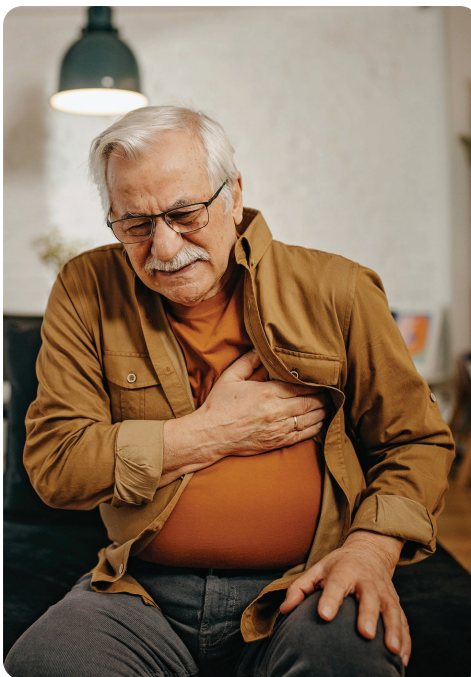
Yet despite his focus on pain management, Dr. Kodgi is quick to correct a common misconception about the topic: "We should never target 'zero' pain," he says, noting it would be unrealistic to not experience any pain. "It's about functionality: Are you able to function and complete tasks required for your daily living?" While having discussions with patients, I encourage them to consider the reality following an event or surgery and see what pain level is appropriate and acceptable to them, given that reality. Together, we aim for a

realistic goal. To reach this goal, various modalities may be required: different classes of pain medications, physical therapy, mindfulness, and innovative procedures.

Dr. Kodgi says the number of tools in the toolbox have greatly expanded beyond two mainstays: opioids and steroid injections, to include procedures like genicular blocks, which involve de-sensitizing pain-generating nerves temporarily (for about six months to a year) without cutting those nerves.

Some of those newer modalities—such as joint fusion and platelet-rich plasma injections—can be used in spine and neurosurgery rehabilitation. "We can incorporate these new techniques to make patients' pain significantly more tolerable," Dr. Kodgi adds.

He notes that some of the best tools in the pain management toolbox are the same tried-and-true strategies that a patient might use to support



Malady Santhosh Kodgi, MD
Pain Medicine

better sleep or reduce anxiety, including acupuncture, marijuana, pool therapy, and hypnosis.

Dr. Kodgi has also seen a positive correlation between weight loss and pain reduction, noting big benefits from the increased use of the drug Ozempic to tackle obesity. In many cases, weight loss has led to a reduction in pain, which has, in turn, diminished a patient's reliance on opioids for pain management. "I've seen patients go from using a walker to independent mobility; individuals who were chronic pain patients are being given a second chance," he says, noting that the progress he's witnessed in these patients each month has been transformative.

Furthermore, an important reminder to all of those seeking pain relief is that pain management is multi-pronged, with no one remedy being a panacea. "Everyone has some discomfort, somewhere," says Dr. Kodgi. "But are you able to function and complete tasks required for your daily living? If a patient can say 'yes,' even with pain, I don't worry much."

Preparing Fellows to Care for the Critically Ill

Every year, more than 5 million patients are admitted to U.S. critical care units and share the need for frequent assessment and a greater need for technological support than patients admitted to non-critical care beds.

MedStar Washington Hospital Center has approximately 120 ICU beds. To prepare pulmonary and critical care fellows for treating complex high-acuity patients, clinicians at MedStar Washington have collaborated with local institutions to develop and lead a DMV Pulmonary Critical Care Core Conference Collaboration (DC5).

"In 2006, we started the fellowship program at the hospital. We had fellows coming from different training facilities, displaying significant variability in their clinical training, knowledge, and procedural competence. We identified a need to bring them together to a common starting place, and build their confidence, knowledge, and skills," shared Christian Woods, MD, program director of the Pulmonary Critical Care program at MedStar Washington and lead faculty member of the program. "After forming a partnership with the National Institutes of Health (NIH) in 2008 to share resources and expertise, other fellowships in the region heard about it, and by 2010, every critical care fellowship program in the Baltimore-Washington area was participating."

Boot camp program

The program has grown to a three-week summer boot camp with a one-week follow-up in the winter and includes fellows

from a consortium of six pulmonary/critical care, one pulmonary, and six critical care programs at MedStar Washington, MedStar Georgetown University Hospital, National Institutes of Health (NIH), George Washington University Hospital, Howard University Hospital, Walter Reed National Military Medical Center, University of Maryland Medical Center, INOVA Fairfax Hospital, and Johns Hopkins Hospital. "It's a fantastic example of how we can avoid duplicate efforts, and instead share space, equipment, and expertise," adds Dr. Woods.

The program moves teaching outside of the time constraints of a direct patient care setting and instead provides focused learning time. "Our method, with small-group problem-solving and simulation-based learning, is unique, and so is our use of multidisciplinary faculty," said Tani Jausurawong Wiest, DO, associate program director of the Surgical Critical Care Fellowship program at MedStar Washington. "We include experiences and mechanical devices that fellows can touch, and elaborate simulations they can work through together in a low-stakes environment to prepare them for when they are caring for patients on their own."

Understanding niche critical care topics

Carly Munro, MD, is a first-year pulmonary and critical care fellow at the hospital who completed the boot camp last year. "It's built for adult learners by experts in their field. What we walk away with is a collective dialogue and shared understanding of niche critical care topics," she said. "The education is important because we're better prepared, which supports patient safety, but it also

gives us a sense of community with the faculty and other fellows. This program was a big incentive for me to come to MedStar Washington."

Dr. Jausurawong Wiest also completed the boot camp program as a fellow. "I went through this experience with fellows from other hospitals and now some of them are my closest colleagues at the hospital. We've learned from each other, and a lot of other projects have continued to grow out of the connections we made. The direct benefits are preparedness, increased skills, and patient safety, but there are also indirect benefits—camaraderie between fellows and faculty across the consortium, a community of educators, improved patient transfers internally between critical care units and interfacility transfers, and a recruitment tool for the participating programs."

The curriculum is divided into sections, each with its leader, reflecting important areas of educational focus that include physiology, pulmonology, critical care, radiology, pathology, ultrasound procedures, mechanical ventilation, and evidence-based medicine. "We have the best of the best teaching in their specific area," said Anantha Mallia, DO, FACEP, associate program director of the Pulmonary and Critical Care Medicine fellowship at MedStar Washington. "It could be someone from our local area or we might bring in an expert from another part of the country to ensure we're providing the best training."

Dr. Mallia first became involved in the collaborative as an Army doctor at Walter Reed in 2011. In 2015, he joined MedStar Washington and now leads the critical care ultrasound curriculum for the collaborative. "Our curriculum focuses on teaching fellows point-of-care ultrasonography for assessing cardiac function, identifying lung pathology, and evaluating for bleeding or clots in critically ill patients. Participants

come from different training backgrounds; some have zero exposure to ultrasound beforehand while others come with years of experience. Under the guidance of skilled faculty, fellows learn by scanning live patients as well as using high-fidelity simulators, giving them a firm foundation to apply at the bedside."

Mechanical ventilation is another area of focus because of its prevalence in treating the critically ill. "More than half of patients at MedStar Washington have been ventilated because we see such high acuity," shared Eric Kriner, BS, RRT, a pulmonary critical care clinical specialist, and a founding faculty member. "Patients might be on a ventilator for a short or long time and have differing variables, but it affects each of their outcomes within a very small margin of error. All intensive care physicians have to know how to manage a mechanical ventilator beyond cursory knowledge. We teach the foundational physiology of how the ventilator delivers a breath to the patient and start with what is normal. We don't want fellows

to memorize abnormal cases and look for those situations; we could compose an unending list of things that could go wrong. When we invest the time in the normal appearance of waveforms on a ventilator, fellows can tell when something is amiss."

The mechanical ventilation component has caught the attention of other medical centers across the country. "I've been to Emory, University of Southern California, Minnesota, Michigan, University of Virginia, University of Pittsburgh Medical Center and we've helped them build their program," adds Kriner. "Oftentimes, it comes about on the recommendation of a fellow who completed our program and wants to launch something similar where they currently practice. When we're training another institution's faculty to get a similar program started, it's in the spirit of sharing medical education to benefit both the trainees and the patients," explains Dr. Woods.

Soliciting feedback to be nimble

The program has continued to grow both from the evaluation of knowledge after the summer and

winter components and from participant feedback. "We are serious about soliciting feedback and being as nimble as possible in making adjustments to the curriculum and continuous improvement, which is a credit to the consortium leadership," said Dr. Mallia. "Seeking feedback makes us better educators."

At MedStar Washington, fellows also complete an additional component that pairs them with a preceptor they meet with monthly. "It minimizes learning loss," said Kriner. "To reach fluency in knowledge, fellows have to be able to teach concepts back to their preceptor. Once we implemented this, we moved from the degradation of knowledge between the summer and winter sessions to seeing continual knowledge ascension until fellows reach a high plateau. Because fellows from other institutions don't participate in the preceptorial component, we also have a comparison point when we test and evaluate knowledge."

Dr. Jausurawong Wiest is following the collaborative model to create a similar smaller-scale curriculum for acute care surgery and trauma surgery on-site. "We're extremely proud of everything that's been born out of our efforts. It's greater than the sum of its parts. Not every hospital has a Burn Center or a surgical cardiovascular critical care unit, and not every hospital is a research hospital. By sharing human and physical resources at each organization, it provides an educational experience that is robust and superior to those of individual programs the consortium could provide on its own. One plus one doesn't always equal two and, in this program, it might equal five, or even ten."



Eric Kriner, Anantha Mallia, DO, Carly Munro, MD, Christian Woods, MD, and Tani Jausurawong Wiest, DO

Radiation Safety — Protecting Providers, Patients, and the Public

The Radiation Safety Department at MedStar Washington Hospital Center

is a vital component in ensuring the safety of patients receiving medical radiation, their loved ones, and hospital associates. The team provides support to several departments within the hospital that use X-rays and radioactive materials, such as radiology, nuclear medicine, radiation oncology, interventional radiology, cardiology, echo physiology labs, orthopedics, oral surgery, research and rehab center, blood bank, and the breast center. Among the team of medical health physicists, health physicist technicians, and a radiation safety officer, someone is always available on-site 24 hours a day, seven days a week.

“Although ionizing radiation has become an important tool for diagnosing and treating a variety of medical conditions, it’s also important to monitor and limit the cumulative doses of lifetime radiation that both patients and medical providers receive. Any radiation exposure poses a potential risk,” said Mohammed Aljallad, PhD, DABR, DABSNM, MRSE, director of Radiation Safety and Imaging Physics and the radiation safety officer at MedStar Washington. “Not every hospital in the U.S. has a Radiation Safety department or a radiation safety officer. Some use contractors that are not on-site, but we are right here in the hospital with decades of experience.”

MedStar Washington is licensed and regulated by the U.S. Nuclear

Regulatory Commission (NRC) and the D.C. Department of Health to use certain radioactive isotopes under certain conditions and restrictions. “Radiation is frequently used, but heavily regulated, with very little flexibility. It’s a big responsibility,” added Aljallad.

That accountability includes radiation safety design, implementation, training, radiation level measurement, monitoring, analysis, and control in different hospital areas. It also extends to conducting audits, quality assurance checks, and inspections to ensure exposure is kept within safe levels for both patients and the personnel who work with radioactive materials. Associates are correctly trained and equipped to investigate radiation-related incidents or accidents and to implement corrective actions to prevent future occurrences. The team also plays a critical role in emergency response situations involving radiation incidents and radiation waste management.

Radiation oncology uses high-energy radiation beams, including X-rays, gamma rays, electrons, and protons, to destroy cancer cells in more than one-half of cancer patients. This treatment can be delivered by a machine outside the body using external-beam radiation therapy. It can also come from radioactive material placed in the body near cancer cells using internal radiation therapy called Brachytherapy.



Rob Blosser, MBA, Mohammed Aljallad, PhD, Evan Makdasy Hana, MS, and David Burch, NA

Nuclear Medicine and the PET-CT department are the Radiation Safety department's biggest clients because radioactive material is injected into a vein, swallowed, or inhaled to diagnose many functions of almost any organ in the body or treat conditions including overactive thyroid and cancers of the thyroid, prostate, liver, and neuroendocrine tumors. "MedStar Washington has one of the largest thyroid cancer programs in the country. It's been built on a high level of care and accentuated by the diligent radiation safety team which ensures that patients are taken care of in a seamless fashion. It's a daily collaboration between our two departments," shared Rob Blosser, MBA, CNMT, lead technologist, and nuclear medicine floor coordinator at MedStar Washington.

Radiation emitted during fluoroscopic procedures is where medical staff may experience significant radiation exposure. These procedures use X-rays, which are a form of ionizing radiation, to diagnose a health problem such as heart or intestinal disease, guide treatments such as implants, injections, or orthopedic surgery, and provide imaging of organs, joints, muscles, and bones. Radiation from diagnostic imaging, including CT, mammography, and nuclear imaging, are minor contributors by comparison but add to the cumulative dose exposures of healthcare workers.

Image quality and dosage levels have an inverse relationship and it's a team effort at the hospital to strike a balance between the two. "We look at how we can keep the radiation dose to the patient as low as possible without negatively impacting image quality," shared Aljallad. "We're considering both the quality of the treatment or diagnosis and the safety of the patient and the public to find the

right combination. For example, we support the breast center where patients may come for a mammogram every year. We strive to keep the dosage for mammography imaging low because of the frequency."



An identiFINDER R-series is a handheld radiation detector.

Following a procedure using above a certain level of radiation, the Radiation Safety team will survey the patient, the associates involved in the procedure, and the room where the procedure was completed to make sure the source of radiation has been removed. "We ensure there is no contamination, and the measurement is normal," said Evan Makdasy Hana, MS, a medical physicist. For some procedures, such as Brachytherapy, Makdasy Hana or another medical physicist on the team will be present to monitor the radioactive materials used to treat the patient in the operating room. "We work as a team, and everyone has their part of the task. We coordinate with each other to reach the same goal of treating our patients with the highest quality and safest care."

Following a procedure using radiation, the patient might not be able to go home right away to limit the radiation exposure to loved ones or the public. "We might recommend that they stay isolated in a different part of their house for a period of time," said David Burch, NA, one of the department's health physics technicians. A determining factor is the time it takes for half of the radioactive atoms of a specific radionuclide to decay, called the

half-life. A math calculation is completed for patients to determine when they can be discharged and the correct guidance for them once they are home.

The guidance for acceptable radiation exposure is different for patients and the public than it is for hospital associates. "Radiation Safety supplies closely monitor radiation badges called personal dosimeters that measure the absorbed dose of ionizing radiation for associates who work with radiation," said Blosser. "Everyone is exposed to radiation every day from the natural environment, but added exposures can increase the risk of developing cancer and harm fetuses," adds Burch. "Our work is complex, but for patients and associates, a helpful motto is time, distance, and shielding. If you're going to be exposed to radiation, limit your time, create some distance, or shield yourself."

Aljallad explains that everyone can rest assured that the more intricate complexities of radiation safety are in good hands. "Five people on my team came in on Saturday to inspect lead aprons that were used during the week. Not only do we supply and encourage the use of lead aprons to provide protection and shielding, we inspect them to ensure they are safe to use," he adds. "We have a great team that does a lot of prep and calculations behind the scenes, but know that we are here and are up to the challenges that radiation safety presents."

Physicians cannot know how much radiation they're getting unless they wear their dosimeter. Furthermore, physicians who perform procedures and don't wear their dosimetry badges can have their privileges suspended.

Marijuana-anesthesia interaction adds new consideration to office-based procedures

As with any other kind of surgery, office-based treatments or procedures that involve some form of anesthesia require careful planning to minimize uncertainties and ensure patient safety. But with the expanding use of both medical and recreational marijuana, some things aren't always under a physician's control.

Even when patients have been advised to abstain from cannabis products prior to a procedure, they may not follow that advice. Indeed, a 2022 American Dental Association survey found that about half of U.S. dentists have had patients arrive for appointments under the influence of marijuana or other drugs.

"Many procedures such as removal of wisdom teeth are usually for a younger population that has a higher rate of marijuana use," according to Ravi Agarwal, DDS, chair of Oral and Maxillofacial Surgery at MedStar Washington Hospital Center. "Some may also be taking anti-anxiety drugs and other medications."

That raises several issues for which there aren't always solid answers.

To be sure, some physical effects that result from the interaction of anesthesia drugs with marijuana are already known, from abnormal respiration and heightened blood pressure to interference with post-procedure pain control medications.

Yet the increased use of marijuana has so far outpaced research on its effects, Dr. Agarwal says.

"When it's deemed safe to do so, we've had to provide more anesthesia medication to get the same effect compared with non-marijuana users," he explains. "That's a big fear for us because the more you have to give a drug, the more you worry about it becoming excessive."

So far, the literature varies, Dr. Agarwal explains, with some results showing a need to increase the dosage of certain types of anesthesia drugs, and others showing little to no change necessary. Factors such as patient age, weight, and comorbidities also have not been fully analyzed.

"There's also anecdotal information that less anesthesia may be needed for patients," he adds. "We just don't know for sure at this point."

Another equally important concern, Dr. Agarwal says, is a potential impairment in a patient's ability to make sound judgments about the procedures.



Ravi Agarwal, DDS
Oral and Maxillofacial Surgery

"Marijuana's effects vary from one person to the next," Dr. Agarwal explains. For those patients using therapeutic marijuana regularly, giving consent may be no problem. Others, such as random users, may be less competent while under the influence. Therefore, many factors have to be considered about whether to proceed or not."

As additional research helps clarify the understanding of marijuana's physical and mental effects on patients while under anesthesia, physicians should be alert to their patients' potential history of use and advise them in confidence of the risks of using cannabis products too close to the scheduled procedure. "There's more delicacy in thinking about doing anesthesia because of these trends," Dr. Agarwal says. "We've never had to think about them before."

"For those patients using therapeutic marijuana regularly, giving consent may be no problem. Others, such as random users, may be less competent while under the influence. Therefore, many factors have to be considered about whether to proceed or not."

— Ravi Agarwal, DDS

Sam Kim, PA-C

Emergency Department Observation Unit

Sometimes in life, timing really is everything. Just ask Sam Kim, PA-C.

The Philadelphia native and his wife were considering places to relocate when he was offered an opportunity to help get MedStar Washington Hospital Center's newly created Emergency Department Observation Unit up and running. A hospitalist by training, Kim's expertise would help shape the unit's protocols for patient care.

Kim says while he enjoyed the hospitalist side of medicine, he was intrigued by the chance to learn about a field of medicine he says, "has some similarities to what I was doing, but is still new to me in many ways."

Watching family members and others close to him cope with medical issues inspired Kim to pursue a career in medicine, beginning with earning a degree in biology from Villanova University. Before pursuing physician assistant training at the Philadelphia College of Osteopathic Medicine, he served as a patient advocate for the Philadelphia Health Corps, where he was involved in providing medical access to patients in underserved communities. He also planned and managed activities to promote health education, including developing culturally competent health education materials for free medical screenings.

Kim says that experience was instrumental in shaping not only his career path but also his day-



"I'm always trying to figure out what is the most affordable medication based on the insurance a patient has, and what I can do to help reduce barriers they may have to receive the standard care everyone should be getting."

– Sam Kim, PA-C

to-day approach to patient-focused medicine. "I'm always trying to figure out what is the most affordable medication based on the insurance a patient has, and what I can do to help reduce barriers they may have to receive the standard care everyone should be getting."

Working at MedStar Washington has proven equally fulfilling, Kim adds. "It

always starts with the people," he says. "We have an amazing group of providers, and my fellow physician assistants (PAs) hit the ground running to help open the unit. Our entire group is easy to work with and team oriented."

Kim's role in the Observation Unit also allows him to see a variety of medical conditions—an aspect that originally attracted him to a PA career. He hopes to play a role in building on the unit's initial implementation to optimize care and expand the range of patients it serves.

"The Observation Unit is predicated on being able to provide good care to patients, and trying to get them safely back home within 24 hours," he explains. "You get a lot of patients who are extremely grateful for all the care they're getting. And there's good communication around what we have planned for them in terms of their medical care."

Keeping pace with such a busy job requires staying in shape, which is why health and nutrition are fundamental to Kim's life away from work. "I do a lot of weightlifting and hiking, and try to get in my ten thousand steps a day—something that's not always easy to do with 12-hour shifts," he says. Kim complements his exercise regimen with an ongoing quest to find the best restaurants in metropolitan Washington. "The more I work out, the more food I can eat," he says with a laugh.

Breanna Goldner, DO, & Simran Kenth, MD

Pulmonary Critical Care Fellows

In the leadup to her Pulmonary Critical Care fellowship, Breanna Goldner, DO, was understandably nervous. That specialty is an intense, demanding, and often emotionally draining pathway. And with only one or two other fellows per class, Dr. Goldner braced herself for a potentially isolating experience.



Breanna Goldner, DO



Simran Kenth, MD

And then, on her first day at MedStar Washington Hospital Center, she met classmate Simran Kenth, MD, and everything changed.

For the past three years, the two fellows have been largely inseparable—inside and outside of the Intensive Care Unit (ICU).

“I got really, really lucky,” Dr. Goldner says, noting that, as fate would have it, the pair live just a few blocks apart. “Sim has been a built-in support system.”

Dr. Goldner is continuously learning from her colleague: “I admire his relationships with patients and families,” she says. “He is amazing with the residents. He gives them autonomy but also enough support to make them feel safe. He makes sure everyone feels taken care of and like they can approach him with any problem.”

Dr. Kenth is equally effusive: “Just by chance, she lives down the road from me. If one of us is having a rough day at work, we can sit down and catch up over pizza and talk about the ‘good’ and the ‘bad.’ She’s been there since day one.”

Dr. Goldner fell in love with the acuity and complexity of the ICU. “A critical illness is a great equalizer,” she notes. “You’re simply focused on getting patients through an acute period.” Dr. Kenth felt drawn to the bedside rapport of the specialty, which fit into his vision of who a doctor should be. “It’s fulfilling to be at the patient’s bedside helping them heal or helping family and parents understand the process,” he says.

And MedStar Washington, Dr. Kenth says, has rounded out that vision. “Everyone is there for each

other: from nurses to technicians to fellows to residents. It’s impossible to pinpoint one person or specialty that helps a patient get better.” Dr. Goldner agrees. “The attendings are so incredibly supportive and kind and care so much about us. They are so willing to help and teach us,” she says. “Leaving will be bittersweet.”

Bittersweet because, while she’s excited to finally move beyond training, she’ll be leaving both the Hospital Center and her dear friend. This summer, Dr. Goldner will head to Allentown, Pa., to work as an attending. She’s excited for a mix of both medical ICU and outpatient pulmonary medicine and being much closer to her family.

Her partner-in-crime, Dr. Kenth, has accepted a role with the University of New Mexico Health System, where he’ll work in the ICU and restart the system’s occupational lung disease clinic. “I’m going to get to learn under a leader in that field and be exposed to a new patient population.”

Luckily, the pair say that the lessons of COVID have prepared them to stay in close touch, despite the distance. And fear not, Dr. Goldner already has a weekend booked to visit New Mexico in the fall for the Albuquerque International Balloon Fiesta.

“It’s going to be hard not having him around anymore,” says Dr. Goldner. “But I’m not worried about us keeping in touch.”

Anette Virta-Paras, MD, PhD

Physician Executive Director, MedStar Medical Group Radiology

When neuroradiologist **Anette Virta-Paras, MD**, joined MedStar Washington Hospital Center nearly two decades ago, there was little talk of artificial intelligence (AI) within her specialty.

Fast forward to 2024, where hyperbolic headlines such as “Is AI replacing radiologists?” might make the general population wonder if the specialty will soon be obsolete.

Yet Dr. Virta-Paras has no concerns about the future of her specialty. And, what’s more, she is all in on incorporating AI into the daily work of radiology.

“We need to embrace it,” says Dr. Virta-Paras. “AI can make us better and faster. It will never replace us completely, but it will improve our service and help our patients.”

Dr. Virta-Paras notes that the number of studies ordered by clinicians has risen dramatically in recent years. In addition, there has been a shift in the type of studies ordered. While 15 years ago a clinician may have ordered a simple head CT or CT of the abdomen and pelvis with less than 100 images, they now order CTAs of the same body parts with thousands of images. AI helps radiologists analyze those images quickly, and then elevate the pertinent findings for closer review.

“AI is constantly developing but there will always be a need for a human to assess whether something is a true finding,” the radiologist says, pointing out that AI often picks up false positives. “A radiologist can quickly scrutinize and realize that’s not



a real finding,” adds Dr. Virta-Paras. She notes that, in a case such as a head bleed, AI helps a radiologist make the call more rapidly, leading patients to get the care they deserve, faster.

Indeed, AI helps filter out the noise, allowing Dr. Virta-Paras to do what she loves best. “I enjoy my work the most when I feel like I’m Sherlock Holmes: What’s going on here? What clues do we have in the images? Is there a clue in the history?” she says. “It is so rewarding when I’m able to come up with a diagnosis and it fits.”

And far from worrying that positions for radiologists might reduce with the growth of AI, Dr. Virta-Paras says the specialty continues to see a tremendous staffing shortage across the country. “We are not training nearly enough radiologists, so we will definitely not be reducing our residency program!” she says.

Dr. Virta-Paras moved from Finland in 1996 to work at the National

Institutes of Health (NIH) researching MRI spectroscopy. She met her husband, a supervisor at the U.S. Patent and Trademark Office, and ultimately decided to stay in the United States. She completed a second residency at George Washington University Hospital, then a neuroradiology fellowship at the University of California, San Francisco, before returning to the District and joining MedStar Washington.

Earlier this spring, Dr. Virta-Paras was named Physician Executive Director. In that role, she says she’ll continue to evaluate additional opportunities to bring AI to imaging.

In her spare time, she can be found on a stationary bike or rowing machine. The former runner traded the trails for a Peloton bike, following a bilateral hip replacement, but calls the practice her “moving meditation.”

Connections

News for the medical & dental staff, residents, and fellows
at MedStar Washington Hospital Center

From the desk of

Nnenna Oluigbo, MD Department of Medicine—General Internal Medicine

Few areas of medicine illustrate the benefits of telehealth better than helping patients manage hypertension. In addition to offering convenience and overcoming access barriers for many older, disabled, and economically challenged patients, telehealth can help overcome the “white coat” effect, where blood pressure readings tend to be higher in clinical environments than at home and other settings.

And because hypertension is a key risk factor for cardiovascular disease, diabetes, chronic kidney disease, and other conditions, the use of telehealth in blood pressure management can provide physicians with a better understanding of a patient’s actual condition and provide a more timely response to changes. They also can develop more appropriate management strategies and lower the risk of overtreatment.

These and other benefits were the basis for establishing MedStar Washington Hospital Center’s Hypertension Telehealth Clinic

nearly three years ago. In that time, we’ve learned a great deal about the technology’s potential in improving hypertension, as well as its limitations. Overall, we have seen a remarkable decrease in the percentage of patients with Stage 2 blood pressure (greater than 140/90) when comparing in-office visits with the first telehealth visit. Patients were also less likely to miss telehealth appointments than office visits. Telehealth visits also help providers reinforce the importance of recommended lifestyle changes and gauge changes in both blood pressure and overall health.

However, there are challenges to telehealth’s effectiveness. First, patients need to become comfortable with using a home blood pressure monitor and regularly log their readings. While MedStar’s eVisit platform is relatively easy to use, many patients—particularly older ones—often need the assistance of a more technically savvy person to install and use the app comfortably, a factor that sometimes can influence the timing of telehealth appointments. Other patients may not have a smartphone or home computer at all.



It’s also important for our providers to be sensitive to each patient’s understanding of the telehealth process, and maintain the same level of interpersonal interaction as they do in office settings.

Fortunately, many of these issues can be addressed during in-person clinic visits, which remain part of a hypertension management approach. And though telehealth cannot serve the needs of every patient with uncontrolled hypertension, we’re hopeful more MedStar Washington providers will take advantage of the Hypertension Telehealth Clinic to help their patients manage this critical health indicator.