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Northern Virginia Health Policy Forum

Exploring Tomorrow's Pain Relief: Innovations, Coverage, and Payment of Non-Opioid Alternatives

Applied Policy, a recognized authority in the health policy and regulatory arena, proudly sponsors the Northern Virginia Health Policy Forum (NVHPF). Each month, the NVHPF brings together key opinion leaders, government officials, and industry experts to examine the most important topics affecting our nation's healthcare system.

On January 23, 2024, the NVHPF hosted Sanjay Sinha, MD, Founder and Chief Innovation Officer of Gate Science and Lead Anesthesiologist at the Connecticut Joint Replacement Institute, and Dru Riddle, PhD, DNP, CRNA, FAAN, President of the American Association of Nurse Anesthesiology. Emerging data from this past year indicates that the opioid epidemic has gained force annually over the last decade and is showing no signs of abating. As the search for effective prevention and treatment intensifies, non-opioid alternatives to pain control offer hope for both patients and healthcare professionals. The panelists, both actively practicing in the field of anesthesiology, discussed these innovative approaches to pain control and the necessary steps to ensure their availability to patients who might otherwise be at risk.

Mr. Riddle first commented on our evolving societal approach to pain control, remarking, "I've been in practice almost 25 years, and we've certainly seen a swing in the healthcare system around pain and pain control." He said that patients deserve appropriate pain control, and acute pain can become chronic pain with lasting implications if left untreated. However, he added that having "absolutely zero pain at all, ever, after a surgical procedure is also probably a bit far-fetched." He believes that there is a happy medium where patients are comfortable while also able to function, work, and recover.

Opioids are at the center of the medical community's approach to pain control, and Dr. Sinha discussed the risk of abuse even in the first days of therapy. He referenced a 2017 study from the Centers for Disease Control and Prevention, which found that six percent of people given a one-day prescription of opioids continued to use them after one year. The rate of use after one year increased to 13.5 percent for people prescribed opioids for eight or more days, and it

reached 29.9 percent when the first episode of use was for 31 days or more.[1] Dr. Sinha found that patients, surgeons, and anesthesiologists are increasingly aware of the risks of developing chronic opioid use or abuse when given opioids post-operatively.

In describing patients' pain profile post-surgery, Dr. Sinha noted that generally intense pain begins within the first 48 hours. After that, patients move to what he called the "transitional phase," during which the pain starts to resolve, the healing process begins, and the pain scores and pain experience decrease until the patient is fully recovered. Dr. Sinha observed that "this transitional phase can last from days to weeks, depending on the kind of surgery the patient has."

Both panelists pointed to encouraging new developments that would offer alternatives to the two-decades-long use of opioids as the dominant pain-control option. Mr. Riddle first noted the increasing "availability of other options, both in the acute care space and anesthesia in particular, with the advent of various regional anesthesia blocks." Nurse anesthetists and anesthesiologists inject medication to numb the surgical area to help with the immediate acute pain post-operatively. Nerve blocks, according to Dr. Sinha, "usually last about 24 to 48 hours, sometimes up to three days." Mr. Riddle added that multidisciplinary teams are adding Enhanced Recovery After Surgery, or "ERAS" protocols, to their practice to remove opioids as the foundation for pain control. He went on to say that this approach reduces patients' surgical stress response, improves their physiologic function, and accelerates recovery.

Dr. Sinha then described his work in developing non-opioid pain control. "About three years ago, I co-founded a company called Gate Science, and we created a product called RELAY." The device uses nerve blocks and neuromodulation, two techniques that have been proven to control pain. Dr. Sinha said that both these techniques have their limitations, but combining the two into a single platform fills the "analgesic gap that exists in that transitional period."

Depending on the surgery site, this device is placed right next to a target nerve. "Once that nerve block wears off, the RELAY device has an integrated pulse generator that can transmit tiny pulses of electricity to the target nerve, modulate that nerve, and continue to block the transmission of those pain sensations." This device can be left in place for up to 28 days, so it controls the entire episode of post-surgical pain from the first 24 hours to days or weeks after surgery.

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[1] Shah A, Hayes CJ, Martin BC. Characteristics of Initial Prescription Episodes and Likelihood of Long-Term Opioid Use — United States, 2006–2015. MMWR Morb Mortal Wkly Rep 2017;66:265–269.
DOI: http://dx.doi.org/10.15585/mmwr.mm6610a1

According to Dr. Sinha, the RELAY device also allows the patient to maintain control over their pain after discharge from the hospital. Recovering patients can, with parameters set by the physician, self-regulate electrical pulses through the Gatekeeper app to control their pain. The app gathers pain scores, opens a pathway of communication with recovering patients, and allows patients to feel in control while at home. Dr. Sinha underscored the importance of this component of the device, as communication between patients and pain specialists generally decreases after post-operative discharges from the hospital or ambulatory surgery center.

Beyond the development of novel approaches to pain control, Mr. Riddle advocated for policy changes to facilitate the use of new techniques. Current regulatory barriers, such as payment penalties, quality metrics, and benchmarks, disincentivize the use of new approaches to pain control. "I'd like our audience to realize and recognize that the clinicians and patients really want to have the best outcome possible." He added that it is "disheartening to not be able to offer a patient what may be the most appropriate technique, device, [or] drug" because regulatory barriers interfere with that clinical intervention.

Applied Policy will convene its next NVHPF on February 28 to discuss the growth of Medicare Advantage plans. If interested, you can find registration links on our monthly newsletter and mailing list.

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This extract was prepared by Applied Policy®.
Go to our YouTube page to see the entire Exploring Tomorrow's Pain Relief program.